International Academy of Oral Medicine and Toxicology (IAOMT)
Position Paper against Dental Mercury Amalgam Fillings for Medical and Dental Practitioners, Dental Students, Dental Patients, and Policy Makers

Originally Released on April 16, 2013
First Update on March 2, 2016; Second Update on July 23, 2019
Regulations Update on October 6, 2020

Compiled, Developed, Released, and Updated by
The IAOMT Science Committee including
John Kall, DMD, FAGD, MIAOMT
Kindal Robertson, DDS, AIAOMT
Phillip Sukel, DDS, MIAOMT
Amanda Just, MS

Originally Approved by the IAOMT Board of Directors on March 14, 2013;
First Update Approved on March 10, 2016; Second Update Approved on July 23, 2019

Table of Contents:

INTRODUCTION

Position Paper Objectives:[1]

1) To end the use of dental mercury amalgam fillings. Many other mercurial medical devices and mercury-containing substances have been removed from use, including mercurial wound disinfectants, mercurial diuretics, mercury thermometers, and mercurial veterinary substances. In this era when the public is advised to be concerned about mercury exposure through fish consumption, dental mercury amalgam fillings should also be eliminated, especially because they are the predominant source of non-industrial mercury exposure in the general population.
2) To assist medical professionals and patients as a whole in understanding the scope of mercury hazards from dental mercury amalgam fillings. The risk of illness or injury associated with the use of dental mercury presents an unreasonable, direct, and substantial danger to the health of dental patients, dental personnel, and the fetuses and children of dental patients and dental personnel.
3) To establish the health benefits of mercury-free, mercury-safe, and biological dentistry.
4) To educate dental and medical professionals, dental students, patients, and policy makers about safe removal of dental mercury amalgam fillings, while raising the standards of scientific biocompatibility in dental practice.

Regulations Overview:

According to the United States Food and Drug Administration (FDA), "Dental amalgam is a mixture of metals, consisting of liquid (elemental) mercury and a powdered alloy composed of silver, tin, and copper. Approximately 50% of dental amalgam is elemental mercury by weight. The chemical properties of elemental mercury allow it to react with and bind together the silver/copper/tin alloy particles to form an amalgam. Dental amalgam fillings are also known as 'silver fillings' because of their silver-like appearance. Despite the name, 'silver fillings' do contain elemental mercury."[2]

Millions of dentists around the world routinely use dental mercury amalgam to repair decayed teeth, but controversy has surrounded the use of mercury in dentistry since the 1800's, when the neurotoxin was first widely introduced as a filling material. The American Society of Dental Surgeons, the predecessor to the American Dental Association, made its members pledge not to use mercury because of its known toxicity,[3] and in more recent years, government officials, scientists, dentists, consumers, and many others have raised serious concerns about the risks dental mercury poses to humans and to the environment at large.

International Regulations:

The United Nations Environment Programme's Intercessional Negotiating Committee agreed upon the text of a global, legally-binding mercury treaty in 2013, and over 100 nations have since signed the "Minamata Convention on Mercury." The United States was the first country to give its support for ratification of the international agreement, which entered into force in 2017. Annex A, Part II, includes the following initiatives with regards to dental mercury amalgam:[4]

(i) Setting national objectives aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration;
(ii) Setting national objectives aiming at minimizing its use;
(iii) Promoting the use of cost-effective and clinically effective mercury-free alternatives for dental restoration;
(iv) Promoting research and development of quality mercury-free materials for dental restoration;
(v) Encouraging representative professional organizations and dental schools to educate and train dental professionals and students on the use of mercury-free dental restoration alternatives and on promoting best management practices;
(vi) Discouraging insurance policies and programmes that favour dental amalgam use over mercury-free dental restoration;
(vii) Encouraging insurance policies and programmes that favour the use of quality alternatives to dental amalgam for dental restoration;
(viii) Restricting the use of dental amalgam to its encapsulated form;
(ix) Promoting the use of best environmental practices in dental facilities to reduce releases of mercury and mercury compounds to water and land.[5]

As part of the Minamata Convention on Mercury, the European Parliament voted in March 2017 to reduce dental mercury use. In addition to reporting "on the feasibility of a phase out of the use of dental amalgam in the long term, and preferably by 2030,"[6] the new European Union regulation includes the following measures:

1. From 1 January 2019, dental amalgam shall only be used in pre-dosed encapsulated form. The use of mercury in bulk form by dental practitioners shall be prohibited.
2. From 1 July 2018, dental amalgam shall not be used for dental treatment of deciduous teeth, of children under 15 years and of pregnant or breastfeeding women, except when deemed strictly necessary by the dental practitioner based on the specific medical needs of the patient.
3. By 1 July 2019, each Member State shall set out a national plan concerning the measures it intends to implement to phase down the use of dental amalgam.[7]

A number of countries have likewise taken action against the use of dental mercury amalgam fillings. A 2017 report from the United Nations Environment Programme establishes that the following measures have been taken around the globe:

In Norway and Sweden, dental amalgam is no longer in use.
In Japan, Finland and the Netherlands, dental amalgam is being phased out.
In Mauritius and the European Union, dental amalgam is banned from use on children.
Denmark uses dental amalgam for only 5 per cent of restorations, and Germany for about 10 per cent.
In Bangladesh, dental amalgam is to be phased out in 2018.
In India, dental schools are required to eliminate amalgam in favor of mercury-free alternatives.
In Nigeria, the government has printed and distributed consumer information brochures promoting mercury-free alternatives to amalgam.
The government of Canada has recommended that dentists not use amalgam for children, pregnant women and persons with kidney disorders.[8]

U.S. Regulations--States:

In the United States, brochures have been created to educate patients about their choices for dental fillings in California,[9] Connecticut,[10] Maine,[11] and Vermont.[12] The brochures, some of which are legally required to be presented to dental patients, contain information about the release of mercury vapor from dental mercury amalgam fillings and concerns related to dental mercury amalgam usage.

U.S. Regulations--Environmental Protection Agency (EPA):

Recently, the U.S. Environmental Protection Agency (EPA) utilized measures in the Clean Water Act to develop standards for dental offices/clinics to use amalgam separators so that dental mercury is not flushed down the drain and into the environment.[13] EPA estimates about 103,000 dental offices use or remove amalgam in the U.S. and that almost all of these send their wastewater to POTWs [publicly owned treatment works]. [14] The new guidelines went into effect in July 2017, and the EPA has estimated that it could reduce the discharge of mercury by 5.1 tons annually.[15]

U.S. Regulations--Occupational Safety and Health Administration (OSHA):

Employee exposure to mercury is regulated in the United States by the 1970 Occupational Safety and Health Act[16] and Workers' Rights Handbooks[17] from the United States Department of Labor's Occupational Safety and Health Administration (OSHA), which establish that all employees have the right to know about the chemicals in their work environment. OSHA's Hazard Communication Standard (HCS) states: "All employers with hazardous chemicals in their workplaces must have labels and safety data sheets [SDS] for their exposed workers, and train them to handle the chemicals appropriately. The training for employees must also include information on the hazards of the chemicals in their work area and the measures to be used to protect themselves."[18]

The purpose of the safety data sheets (SDS, formerly known as material safety data sheets, or MSDS) required by OSHA is to protect workers by supplying them with the most crucial facts about the hazardous materials at their jobsite, such as the physical properties of the material, proper storage and handling techniques, known health risks and essential emergency procedures. Thus, manufacturers of amalgam fillings must create these information sheets, and excerpts from just a few of the SDSs for dental amalgam includes compelling evidence about the known dangers of using mercury in fillings:

- SDI; Permite; Lojic +; GS-80, GS-80 Spherical; F400; Ultracaps +; Ultracaps S; SDI Admix; SDI Spherical and New Ultrafine.- Capsules; Australia, Brazil, Ireland, and the USA; 2015:[19]
    - Hazard Identification/California Prop 65 Warning: "This product contains mercury, a chemical known to the State of California to cause birth defects or other reproductive harm."
    - First Aid Measures: "May cause respiratory disorders including inflammation and fluid retention. Inhalation of mercury vapours at high concentration can cause dyspnea, coughing, fever, severe nausea, vomiting, excess salivation, kidney damage with renal shutdown."

    - Toxicological Information/Chronic Health Effects: "Inhalation of mercury vapours, dusts or organic vapours, or skin absorption or mercury over long periods can cause mercurialism. Symptoms include tremors, inflammation of mouth and gums, excessive salivation, stomatitis, blue lines on gums, pain and numbness in extremities, weight loss, mental depression, and nervousness. Exposure may aggravate kidney disorders, chronic respiratory disease and nervous system disorders. May cause damage to blood, kidneys, liver, brain, peripheral nervous system, central nervous system."
- Kerr Corporation; Tytin FC ™; USA; 2014:[20]
    - First Aid Measures/Inhalation: "Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations, salivation, metallic taste, eye irritation, respiratory tract irritation, coughing, pulmonary edema, wheezing and breathing difficulties, headache, fever, nausea or vomiting, diarrhea, abdominal cramps and pain, muscle weakness / pain, mental confusion or disorientation."
    - First Aid Measures/Skin Contact: "Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations."
    - First Aid Measures/Ingestion: "Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations."
- Henry Schein; SDS acc. to OSHA HCS/GHS; Stratosphere, Ionosphere, Troposphere; USA; 2016:[21]
    - Risk phrases: "May cause harm to the unborn child. Also very toxic by inhalation. Also toxic: danger of serious damage to health by prolonged exposure through Inhalation."
    - Additional toxicological information: "Avoid exposure of mercury to pregnant person."

U.S. Regulations--U.S. Food and Drug Administration (FDA):

In September of 2006, a joint panel of FDA scientific experts rejected an FDA White Paper's assurances of the safety of dental mercury amalgam.[22]

On July 28, 2008, the IAOMT submitted a public comment to FDA[23] demanding dental mercury amalgam be classified in conformance with the mandate of the Medical Device Amendments of 1976.[24] Nearly a year later, the IAOMT also filed a Citizen's Petition to further influence FDA policy-making on amalgam. A few days after that, on July 28, 2009, FDA announced it was classifying dental mercury amalgam for the first time in Class II without requiring any significant special controls.[25]

FDA's Final Rule on this issue was published on August 4, 2009,[26] and an FDA warning for dental mercury amalgam use in developing children and pregnant women (fetuses)[27] was soon removed from the FDA website. FDA also published an Addendum in support of its Final Rule,[28] which attempted to address the recommendations of the joint panels that convened in September of 2006 when they rejected the proclamations of dental mercury amalgam safety set forth in the FDA's White Paper on amalgam fillings.[29]

Following the issuance of the FDA's Final Rule, the IAOMT sponsored a Petition for Reconsideration in 2009 which identified over 25 errors committed by FDA in its discussion of risk assessment principles.[30] Based on the IAOMT petition, the FDA scheduled a meeting of the Dental Products Panel of the Medical Devices Advisory Committee in December 2010. At the meeting, Dr. Suresh Kotagal, a pediatric neurologist at the Mayo Clinic announced: "…I think that there is really no place for mercury in children."[31] The 2010 Dental Products Panel encouraged the FDA to consider limiting dental mercury amalgam use in pregnant women and children and to consider labeling that would warn consumers about the risks of this mercury-containing product.[32]

No formidable action was taken, and the IAOMT filed a lawsuit in 2014 against the FDA over its classification of dental mercury amalgam.[33] As part of the case, the IAOMT secured an internal document from the FDA that had proposed restricting dental mercury amalgam use in pregnant and nursing women and children under the age of six, as well as individuals with mercury allergies and pre-existing kidney or neurological disease.[34] Yet, allegedly for administrative reasons, the FDA communication (dated January 2012) was not released to the public.

On November 13-14, 2019, dental amalgam and metal implants were discussed at a meeting of the FDA's Immunological Device Panel[35] that was preceded by the release of a literature review on mercury from dental amalgam[36] and a report on biological responses to metal implants.[37] IAOMT actively provided comments on the documents in writing and in person at the event.

On September 24, 2020, the FDA issued recommendations for dental amalgam that warned "harmful health effects of mercury vapor released from the device" could impact high-risk populations.[38] **In particular, the following groups are now advised by the FDA to avoid getting dental amalgam whenever possible and appropriate: pregnant women and their developing fetuses; women who are planning to become pregnant; nursing women and their newborns and infants; children, especially those younger than six years of age; people with pre-existing neurological disease such as multiple sclerosis, Alzheimer's disease or Parkinson's disease; people with impaired kidney function; and people with known heightened sensitivity (allergy) to mercury or other components of dental amalgam.**[39]

IAOMT's Position on Regulations:

Founded in 1984, the International Academy of Oral Medicine and Toxicology (IAOMT) is a worldwide organization of dentists, physicians, and research professionals devoted to the examination, compilation, and dissemination of scientific information about the biocompatibility of oral/dental materials. The fundamental mission of the IAOMT is to promote the health of the public. In this regard, the IAOMT continually reviews, composes, and shares analytical research and educational materials related to the biocompatibility of oral/dental materials.

Thus, this position paper was formulated by conducting a PubMed literature search, hand-searching an IAOMT collection of published literature, analyzing the available scientific data, reviewing personal experiences of IAOMT members in clinical settings, synthesizing expert opinions, funding relevant research to explore various aspects of dental mercury amalgam and non-amalgam alternate dental materials, and evaluating information about the issue provided by governmental authorities, health organizations, and environmental groups from around the world.

Additionally, this position paper clearly outlines significant quantities of reputable research and challenges the safety of dental mercury amalgam fillings by applying two cornerstones of public health policy: 1) risk assessment and 2) the precautionary principle.

1) "Risk assessment" has been defined by the FDA as follows: "Risk assessment consists of identifying and characterizing the nature, frequency, and severity of the risks associated with the use of a product. Risk assessment occurs throughout a product's lifecycle, from the early identification of a potential product, through the premarketing development process, and after approval during marketing. Premarketing risk assessment represents the first step in this process prior to marketing."[40]

Risk assessment expert Dr. G. Mark Richardson was invited by the FDA to present the results of a major risk assessment analysis of dental mercury amalgam fillings at the 2010 FDA Dental Products Panel meeting.[41] Dr. Richardson's work, which established that millions of Americans exceed the intake of mercury vapor considered "safe" by the U.S. Environmental Protection Agency (EPA) due to the presence of dental mercury amalgam fillings, was published shortly thereafter.[42] FDA's report about the 2010 meeting noted: "The Panel deliberated on the exposure to mercury from dental amalgam, reference exposure levels, human clinical studies and the strength and weaknesses of the available evidence." [43]

Additionally, a conscientious and ethical deliberation of the data and analysis should include a second cornerstone of public health policy known as the precautionary principle.

2) In June 1992, the United Nations Environment Programme ratified the Rio Declaration on Environment and Development which, among other principles, established the precautionary approach among UNEP member states. In particular, Principle 15 states: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."[44]

Further to the Rio Declaration, in January 1998, at an international conference involving scientists, lawyers, policy makers, and environmentalists from the United States, Canada and Europe, a formalized statement was signed and became known as the "Wingspread Statement on the Precautionary Principle."[45]

In it, the following advice is given: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof."[46]

Based on scientific evidence, concepts of risk assessment, and the precautionary principle, it is our position that dental mercury amalgam fillings should not be used in dentistry. It should also be noted here that the IAOMT is concerned that dental mercury amalgam fillings are following the same delayed route to safety regulations as occurred with cigarettes and lead-based paint.

SUGGESTED ACTION BY MEDICAL AND DENTAL PRACTITIONERS AND PATIENTS:

INTERVENTIONS

Summary of Interventions:

1) The main ingredient for mercury amalgam fillings is mercury, approximately 50% by weight. Therefore, the appropriate terminology is "dental mercury amalgam fillings."
2) Dental mercury amalgam fillings should not be used in dentistry.
3) The detrimental impact of mercury on fetuses, pregnant women, women of childbearing age, children, patients experiencing health issues, and dental workers mandate that special protection be provided to these populations with regards to dental mercury amalgam fillings.
4) Removal of existing dental mercury amalgam fillings requires safety measures for dentists, dental staff, dental students, and patients.

Detail of Interventions:

1) The main ingredient for mercury amalgam fillings is mercury, approximately 50% by weight. Therefore, the appropriate terminology is "dental mercury amalgam fillings."

All dental amalgam restorations contain approximately 50% mercury,[47] and reports and research are consistent that these fillings emit mercury vapors.[48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62]

Thus, while these restorations are commonly referred to as "silver fillings," "dental amalgam," and/or "amalgam fillings," the public is often unaware that amalgam refers to the combination of other metals with mercury.[63] A 2014 Zogby poll established that 57% of Americans did not know that mercury is the main ingredient in amalgam fillings and that 63% thought the commonplace practice of referring to mercury amalgams as "silver fillings" was misleading.[64] It would be more appropriate therefore to recognize them as "dental mercury amalgam fillings," "mercury silver fillings," or "mercury fillings." Terminology recognizing the main ingredient of mercury is needed so that medical and dental practitioners, dental students, patients, and policy makers are aware that mercury is the main ingredient in this medical device.[65] [66] [67] As such, this document refers to these tooth restorations as "dental mercury amalgam fillings."

Additionally, an understanding of the terminology associated with dentists that aim to end the use of dental mercury amalgam fillings is helpful to medical professionals and patients. These terms are commonly used, and dentists often choose one or several of these terms to describe their practice:

- "Mercury-free" is a term with a wide-range of implications, but it typically refers to dental practices that do not place dental mercury amalgam fillings.
- "Mercury-safe" typically refers to dental practices that use safety measures to limit or prevent mercury exposure, such as in the case of removing previously existing dental mercury amalgam fillings and replacing them with non-mercury alternatives.
- "Biological" or "Biocompatible" dentistry typically refers to dental practices that utilize mercury-free and mercury-safe dentistry while also considering the impact of dental conditions, devices, and treatments on oral and systemic health, including the biocompatibility of dental materials and techniques.

2) Dental mercury amalgam fillings should not be used in dentistry.

Exposure to mercury, even in minute amounts, is known to be toxic and poses significant risks to human health. A 2005 World Health Organization report warned of mercury: "It may cause harmful effects to the nervous, digestive, respiratory, immune systems and to the kidneys, besides causing lung damage. Adverse health effects from mercury exposure can be: tremors, impaired vision and hearing, paralysis, insomnia, emotional instability, developmental deficits during fetal development, and attention deficit and developmental delays during childhood. Recent studies suggest that mercury may have no threshold below which some adverse effects do not occur."[68]

Scientific research demonstrates that dental mercury amalgam exposes dental professionals, dental staff, dental patients, and fetuses to releases of mercury vapor, mercury-containing particulate, and/or other forms of mercury contamination.[69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113] Dental mercury amalgam is therefore not a suitable material for dental restorations.

Furthermore, mercury vapor is known to be released from dental mercury amalgam fillings at higher rates during brushing, cleaning, clenching of teeth, chewing, etc.,[114 115 116 117 118 119 120 121 122 123 124 125 126 127] and mercury is also known to be released during the placement, replacement, and removal of dental mercury amalgam fillings.[128 129 130 131 132 133 134 135 136 137 138 139 140 141 142]

A series of studies demonstrate that urinary mercury concentrations consistently increase as the number of amalgam fillings increases.[143 144 145 146 147 148] In these studies, the average urine mercury content is consistently greater in groups with amalgam fillings than in those without, and urine mercury content consistently increases as the number of dental mercury amalgam fillings increases.

Numerous studies have also demonstrated that the mercury exposure or concentration increases in the following tissues and situations

- Due to chewing, brushing, and/or bruxism[149 150 151 152 153 154 155 156 157 158 159]
- In exhaled or intra-oral air of persons with amalgam fillings[160 161 162 163]
- In saliva of persons with amalgam fillings[164 165 166 167 168 169]
- In blood of persons with amalgam fillings[170 171 172 173 174 175 176 177 178 179 180 181 182]
- In various organs and tissues of amalgam bearers, including the kidney, liver, pituitary gland, thyroid, and brain or parts thereof[183 184 185 186 187]
- In feces of amalgam bearers[188 189 190]
- In amniotic fluid, cord blood, placenta, and various fetal tissues including liver, kidney, brain, and hair in association with maternal amalgam load[191 192 193 194 195 196 197 198 199]
- In colostrum and breast milk in association with maternal amalgam load[200 201 202]

Scientific evidence confirms that in most individuals with dental mercury amalgam fillings, mercury exposure exceeds the Reference Exposure Level (REL).[203] [REL is a term used to denote the exposure level defined by national and international regulatory agencies at which there is an expectation of *no negative health outcomes* within the population.]

Also, reports from the World Health Organization (WHO) and Canada's federal department of health (Health Canada) conclude that mercury vapor from dental amalgam is the greatest source of human exposure to mercury in non-industrial settings.[204] [205]

Additionally, in research published in 2011, Dr. G. Mark Richardson reported that more than 67 million Americans aged two years and older exceed the intake of mercury vapor considered "safe" by the U.S. EPA due to the presence of dental mercury amalgam fillings, whereas over 122 million Americans exceed the intake of mercury vapor considered "safe" by the California EPA due to their dental mercury amalgam fillings.[206]

3) The detrimental impact of mercury on fetuses, pregnant women, women of childbearing age, children, patients experiencing health issues, and dental workers mandate that special protection be given to these populations with regards to dental mercury amalgam fillings.

Mercury's damaging influence on the developing brain and neurological system makes dental mercury amalgam fillings an inappropriate material for use in children, pregnant women, and women of childbearing age. In fact, research has repeatedly shown the potential for significant impacts to pregnant women, fetuses, and children as a result of dental mercury.[207] [208] [209] [210] [211] [212] [213] [214] [215] [216] [217] [218] [219] [220] [221] [222] [223] [224] [225] [226] [227] [228] [229] [230] [231] [232] [233] [234] [235] [236] [237] [238] [239] [240] [241] [242] [243] [244] [245] [246]

Additionally, physicians and dentists should, where patients are suffering from pathological states and/or disease of unclear causation, consider in their differential diagnosis whether exposure to mercury released from dental mercury amalgam fillings might be a contributing or exacerbating factor in such adverse health conditions. This is because dental mercury amalgam has been associated with a wide-range of adverse health conditions.[247] [248] [249] [250] [251] [252] [253] [254] [255] [256] [257] [258] [259] [260] [261] [262] [263] [264] [265] [266] [267] [268] [269] [270] [271] [272] [273] [274] [275] [276] [277] [278] [279] [280] [281] [282] [283] [284] [285] [286] [287] [288] [289] [290] [291] [292] [293] [294] [295] [296] [297] [298] [299] [300] [301] [302] [303] [304] [305] [306] [307] [308] [309] [310] [311] [312] [313] [314] [315] [316] [317] [318] [319] [320] [321] [322] [323] [324] [325] [326] [327] [328] [329] [330] [331] [332] [333] [334] [335] [336] [337] [338] [339] [340] [341] [342] [343] It should also be remembered that reactions to mercury exposures vary from person to person, including exposures to dental mercury.[344] [345]

Finally, dentists, dental staff, and dental students are exposed to mercury at a greater rate than their patients. Severe exposures from past practices include hand-squeezing of fresh amalgam, where drops of liquid mercury could run over the dentist's hands and contaminate the entire office.[346] Dangerous levels of mercury are still generated in the dental workplace, and research has clearly identified that exposure to these mercury levels can cause ill-health to dental workers,[347] [348] [349] [350] [351] [352] [353] [354] [355] [356] [357] [358] [359] [360] [361] [362] [363] [364] [365] [366] [367] [368] [369] [370] [371] [372] [373] [374] [375] [376] [377] [378] [379] [380] [381] [382] and dental students.[383] [384] [385] Another area that has received attention is the possibility of reproductive hazards to female dental personnel, including menstrual cycle disorders, fertility issues, and pregnancy risks.[386] [387] [388] [389] [390] [391] [392] [393]

Dental workers require protection from mercury exposures when working with dental mercury amalgam, and a variety of studies have specifically called for protective measures to be taken in the dental office as a means of limiting mercury releases.[394] [395] [396] [397] [398] [399] [400] [401] [402] [403] [404] [405] [406] [407] [408] [409] [410] [411] [412] [413] [414]

4) Removing dental mercury amalgam fillings requires safety measures for dentists, dental staff, and patients.

Chronic (low dose, long-term) exposure to mercury for dentists, dental staff, dental students, and dental patients does not exist when alternative materials are used for dental fillings. However, there is a high risk of acute (high dose, short-term) mercury exposure to dentists, dental staff, dental students, and dental patients when dental mercury amalgam fillings are drilled out. Essentially, an unsafe amalgam removal process releases mercury vapor and particles that can be harmful to the patient, the dentist, the dental staff, and the environment.[415] [416] [417] [418] [419] [420] [421] [422] [423] [424] Obviously, the danger to the patient is increased since mercury is being released directly into the mouth and lungs.

There are levels of increasing protection for limiting exposure during mercury-related dental procedures. Depending on the level of protection, health risks will vary. The challenge is training dentists from around the globe to use effective engineering controls and personal protective equipment as they remove the thousands of tons of mercury currently stored in the mouths of patients with dental mercury amalgam fillings. An additional challenge is training U.S. dentists to properly comply with both the current OSHA standards[425] and the EPA standards.[426]

Utilizing the most up-to-date science and research, the IAOMT has developed extensive safety recommendations for removal of existing dental mercury amalgam fillings, including detailed protective measures that are to be utilized for the procedure.[427] The IAOMT's innovative recommendations build upon traditional safe amalgam removal techniques such as the use of masks, water irrigation, and high volume suction by supplementing these conventional strategies with a number of additional protective measures, the need for which have only recently been identified in scientific research. The IAOMT's Safe Mercury Amalgam Removal Technique (SMART) is described in more detail on pages 14-16 below.

OUTCOMES CONSIDERED

Individual Response:

First, it should be noted that mercury influences each individual differently based on a wide-range of co-existing factors.[428] For example, other health conditions (specified throughout this document), the number of amalgam fillings in the mouth[429] [430] [431] [432] [433] [434] [435] [436] [437] and/or the number of amalgam surfaces in the mouth;[438] [439] [440] [441] [442] [443] [444] [445] [446] [447] [448] [449] the type of the amalgam filling (i.e. specific content of metals);[450] [451] gender;[452] [453] [454] [455] [456] [457] [458] genetic predisposition;[459] [460] [461] [462] [463] [464] [465] [466] [467] [468] [469] [470] [471] [472] [473] [474] [475] [476] [477] [478] dental plaque;[479] exposure to electromagnetic fields (EMF) from magnetic resonance imaging (MRI),[480] [481] [482] [483] [484] mobile/cellular phones,[485] and Wi-Fi;[486] [487] exposure to aluminum,[488] [489] fluoride,[490] [491] lead,[492] [493] [494] [495] [496] and other environmental toxicants;[497] selenium levels;[498] [499] consumption of milk[500] [501] or alcohol;[502] methylmercury levels from fish consumption;[503] [504] [505] the potential for mercury from dental amalgam fillings to be transformed into methylmercury within the human body;[506] [507] [508] [509] [510] [511] and other circumstances[512] [513] can play a role in each person's unique response to mercury. Table 1 below shows a number of factors related to mercury responses.

TABLE 1: Abbreviated list of variables potentially influencing individual reactions to dental mercury exposure

Factors related to mercury vapor release from dental amalgam filling
Age of amalgam filling
Cleaning, polishing, and other dental procedures
Contents of other materials mixed with the mercury, such as tin, copper, silver, etc.
Dental plaque
Deterioration of amalgam filling
Habits such as brushing, bruxism, chewing (including gum chewing, especially nicotine gum), consumption of hot liquids, diet (especially acidic foods), smoking, etc.
Infections in the mouth
Number of amalgam fillings
Other metals in the mouth, such as gold fillings or titanium implants
Root canals and other dental work
Saliva content
Size of amalgam filling
Surface area of amalgam filling
Techniques and safety measures applied when removing amalgam filling
Techniques used when placing amalgam filling
Exposure to electromagnetic fields (EMF) from magnetic resonance imaging (MRI), mobile/cellular phones, and Wi-Fi
Personal traits and conditions related to mercury exposure response
Alcohol consumption
Allergy or hypersensitivity to mercury
Bacteria, including mercury resistant and antibiotic resistant
Burdens in organs and tissues such as the kidney, pituitary gland, liver, and brain
Diet and levels of nutrients such as selenium
Drug use (prescription, recreational, and addiction)
Exercise
Exposure to other forms of mercury (i.e., fish consumption), aluminum, fluoride, lead, pollution, and any toxic substances (presently or previously)
Fetal or breast milk exposure to mercury, lead, and any toxic substances
Gender
Genetic traits and variants
Infections
Microbes in the gastrointestinal tract
Milk consumption
Nutrient levels, especially copper, zinc, and selenium
Occupational exposures to toxic substances
Overall health
Parasites and helminths
Stress/trauma
Yeast

SOURCE: This has been adapted from Table 7.3 in Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. *Epigenetics, the Environment, and Children's Health across Lifespans.* David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 19, 2019.

In the same way that individual response influences reactions to mercury exposures, individual response also varies from patient to patient upon amalgam removal. Research supports the fact that many patients benefit from having their amalgams removed and replaced with an alternative material. A few examples of conditions reportedly improved and/or cured as a result of removing dental metal allergens include amyotrophic lateral sclerosis,[514 515] autoimmune thyroiditis,[516 517 518 519 520] myalgic encephalomyelitis/chronic fatigue syndrome,[521 522 523 524 525 526] dermatitis,[527 528 529 530] fibromyalgia,[531 532 533] multiple sclerosis,[534 535 536] oral lichen planus,[537 538 539 540 541 542 543] oral lichenoid lesion,[544 545 546 547 548 549 550 551 552 553 554 555 556] orofacial granulomatosis,[557 558] and other symptoms.[559 560 561 562 563] In addition to the recovery situations mentioned above, which are specifically related to dental allergies, research has likewise documented the reduction of other health issues after the removal of mercury amalgam fillings.[564 565 566 567 568 569 570 571 572 573 574 575 576 577 578] Table 2 is brief overview of some of the research articles showing improvement in autoimmune illnesses after amalgam removal.

TABLE 2: Condensed List of Research Documenting Improvement in Autoimmune Conditions upon Metal Implant/Device Removal, including Dental Mercury Amalgam Fillings

Health Condition/s Improved or Recovered	**Implant/Device Removed**
Autoimmune Thyroiditis/ Fatigue	Dental mercury amalgam fillings[579 580 581 582]
Chronic Fatigue Syndrome (Myalgic Encephalomyelitis/Chronic Fatigue Syndrome)	Dental mercury amalgam fillings and other metallic dental restorations[583 584 585 586 587]
Chronic Fatigue Syndrome (Myalgic Encephalomyelitis/Chronic Fatigue Syndrome)	Nickel clips from tubal ligation, dental mercury amalgam fillings and other metallic dental restorations[588]
Crohn's Disease	Dental mercury amalgam fillings and other metallic dental restorations[589]
Dermatitis	Cobalt-chromium prosthesis and dental mercury amalgam fillings[590]
Fibromyalgia	Dental mercury amalgam fillings and other metallic dental restorations[591 592 593]
Multiple Sclerosis	Dental mercury amalgam fillings and other metallic dental restorations[594 595]
Multiple symptoms including fatigue, pain, depression, and headache	Dental mercury amalgam fillings and other metallic dental restorations[596]
Oral lichen planus	Dental mercury amalgam fillings and other metallic dental restorations[597 598]
Sjögren's Syndrome	Dental mercury amalgam fillings and other metallic dental restorations[599 600]
Systemic Lupus Erythematosus	Dental mercury amalgam fillings[601]

Amalgam Removal:

However, an outcome of dental mercury amalgam removal is acute exposure to mercury vapor and particulate for dentists, dental staff, dental students, and dental patients,[602] [603] [604] [605] [606] [607] [608] [609] [610] [611] [612] [613] especially endangering pregnant women, lactating women, women of childbearing age, fetuses, children, and other sensitive populations.

Other than primary exposures during dental mercury amalgam removal, secondary exposures in less obvious areas of the dental office are emerging as additional sources of chronic mercury exposures. Some of these peripheral exposures include the following:

- mercury exposure to staff, patients, and visitors in other parts of the office not directly involved in the removal process
- environmental mercury exposure caused by the waste from removal and storage of amalgam, especially because the ADA's "Best Management Practices for Amalgam Waste"[614] is voluntary
- storage and disposal of workplace protective clothing and instruments used during procedures involving dental mercury amalgam
- mercury vapor exposure from sterilization of instruments used on dental mercury amalgam fillings
- mercury vapor and particulate on the carpeting/flooring, walls, ceilings, drapes, HVAC ducts, etc.
- mercury particulate that is carried home in hair, on shoes, clothing, and other items from the dental office

To assist in mitigating the potential negative outcomes of both primary and secondary mercury exposure during amalgam removal, the IAOMT has developed new safety recommendations for removal of existing dental mercury amalgam fillings to protect dental professionals, students, staff members, patients, and others from mercury exposure.[615]

More specifically, the IAOMT's Safe Mercury Amalgam Removal Technique (SMART) includes the following practices, which are cited here with scientific research supporting each step of the technique:

> An amalgam separator must be properly installed, utilized, and maintained to collect mercury amalgam waste so that it is not released into the effluent from the dental office. [616] [617] [618] [619] [620] [621] [622] [623] [624] [625] [626] [627] [628] [629]
>
> Each room where mercury fillings are removed must have adequate filtration in place,[630] [631] [632] [633] which requires a high-volume air filtration system (such as an at source oral aerosol vacuum) capable of removing mercury vapor and amalgam particles generated during the removal of one or more mercury fillings.[634] [635]
>
> If possible, windows should be opened to reduce the mercury concentration in the air.[636] [637] [638] [639]

The patient will be given a slurry of charcoal, chlorella, or similar adsorbent to rinse and swallow before the procedure (unless the patient declines or there are other contraindications making this clinically inappropriate).[640] [641] [642]

Protective gowns and covers for the dentist,[643] [644] dental personnel,[645] [646] and the patient[647] must be in place. All present in the room must be protected because substantial quantities of particles generated during the procedure will elude collection by suction devices.[648] [649] It has been demonstrated that these particles can be spread from the patient's mouth to the hands, arms, face, chest and other parts of the dental worker's and patient's anatomy.[650]

Non-latex nitrile gloves must be utilized by the dentist and all dental personnel in the room.[651] [652] [653] [654] [655]

Face shields and hair/head coverings are to be utilized by the dentist and all dental personnel in the room.[656] [657] [658]

Either a properly-sealed, respiratory grade mask rated to capture mercury or a positive pressure, properly-sealed mask providing air or oxygen must be worn by the dentist and all dental personnel in the room.[659] [660] [661] [662]

In order to protect the patient's skin and clothing, a full body, impermeable barrier, as well as a full head/face/neck barrier under/around the dam, need to be utilized.[663] [664] [665]

External air or oxygen delivered via a nasal mask for the patient also needs to be utilized to assure the patient does not inhale any mercury vapor or amalgam particulate during the procedure. [666] [667] [668] A nasal cannula is an acceptable alternative for this purpose as long as the patient's nose is completely covered with an impermeable barrier.

A dental dam[669] [670] [671] [672] [673] [674] [675] that is made with non-latex nitrile material[676] [677] [678] must be placed and properly sealed in the patient's mouth.

A saliva ejector must be placed under the dental dam to reduce mercury exposure to the patient.[679] [680]

During amalgam filling removal, the dentist must utilize an at source oral aerosol vacuum in close proximity to the operating field (i.e., two to four inches from the patient's mouth) to mitigate mercury exposure.[681] [682]

High speed evacuation produces better capture when fitted with a Clean Up device,[683] [684] which is not mandatory but is preferred.

Copious amounts of water to reduce heat[685] [686] [687] [688] [689] [690] [691] [692]and a conventional high speed evacuation device to capture mercury discharges[693] [694] [695] [696] [697] [698] [699] [700] [701] [702] are required to reduce ambient mercury levels.[703]

The amalgam needs to be sectioned into chunks and removed in as large of pieces as possible,[704] [705] [706] [707] using a small diameter carbide drill.[708] [709]

Once the removal process is complete, the patient's mouth should be thoroughly flushed with water[710] [711] and then rinsed out with a slurry of charcoal, chlorella or similar adsorbent.[712]

Dentists must comply with federal, state, and local regulations addressing the proper handling, cleaning, and/or disposal of mercury-contaminated components, clothing, equipment, surfaces of the room, and flooring in the dental office.

During the opening and maintenance of suction traps in operatories or on the main suction unit, dental staff should utilize the appropriate personal protection equipment described above.

In addition to the research cited above supporting each step of the IAOMT's SMART protocol, SMART has also been recommended by researchers of a study published in 2019 in the peer-reviewed *Journal of Pharmacy and Bioallied Sciences*.[713]

Alternatives to Amalgams:

Obviously, once amalgams have been removed, they must be replaced with a different dental filling material. Alternatives to amalgam include composite resin, glass ionomer, porcelain, and gold, among other options. When given the choice, most consumers opt for direct composite fillings because the white coloring matches the tooth better and the cost is considered moderate.

In the past, a common argument against composite fillings was that they were not as durable as amalgam. However, recent studies have debunked this claim. Researchers of a study which was published in 2016 and conducted on over 76,000 patients for over ten years found that posterior amalgam fillings had a *higher* annual failure rate than composites.[714] Two separate studies published in 2013 found that composite fillings performed as well as amalgam when comparing failure rates[715] and replacement filling rates.[716] Other research has offered similar findings:

- a study about the longevity of composite fillings published in 2017 and authored by researchers at the University of Pittsburgh School of Dental Medicine concluded that composites can replace amalgam restorations;[717]
- a study published in 2015 documented "good clinical performance" of composite resins over a 30-year evaluation;[718]
- a meta-analysis published in 2014 noted "good survival" of posterior resin composite restorations;[719]
- and a study published in 2011 found "good clinical performance" of composites over a 22-year period.[720]

Research has further confirmed that composite resins present a lower risk for chemical exposures. In a 2016 publication co-authored by risk assessment specialist Dr. G. Mark Richardson, it was reported: "Relative risks of chemical exposures from dental materials decrease in the following order: Amalgam>Au alloys>ceramics>composite resins."[721]

Yet, composite fillings have been criticized because some of them contain fluoride and/or bisphenol-A (BPA). Dentists have a variety of opinions about the safety of fluoride, BPA, and other types of bisphenol, such as Bis-GMA and Bis-DMA. Patients who are concerned about the specific components of their fillings often choose to speak with their dentists about using a material that does not contain certain ingredients. For example, a product named Admira Fusion[722]/Admira Fusion X-tra[723] released in January 2016 by the dental company VOCO is being touted as "the first purely ceramic-based restorative material"[724] and does not contain Bis-GMA or BPA before or after it has been cured.

Any replacement materials, including ceramics, composites, gold, and other types of metal, should be assessed for safety and biocompatibility with special consideration for all populations and all known risk factors. [725] In particular, clinical screening for patients' metal allergies has been recommended,[726] and the importance of patients reporting reactions to metals to their doctors has been emphasized in the scientific literature.[727] [728] [729] [730] [731] [732] In addition to reporting any rashes from jewelry, watches, or other metal exposures, it is essential for each patient to recognize the gamut of symptoms that can be related to the presence of a metal implant or device in their body. It is also vital for patients to remember that sensitization to metal can develop years after an implant or device has been placed and that adverse effects can occur *with or without* the sign of a rash or eruption on the skin or in the mouth.

Allergy testing can be used to assist in identifying some of the individuals susceptible to adverse reactions to metals. Patch testing is generally regarded as the "gold standard" in allergy testing; however, patch testing has also been criticized because it involves directly applying the allergen to the skin, it can exacerbate symptoms in patients, it can result in sensitization, and the results can be affected by other conditions.[733] Two relatively new alternatives to skin patch testing are a modified version of the Lymphocyte Transformation Test (LTT) known as MELISA[734] and the Lymphocyte Response Assay (LRA) by ELISA/ACT.[735]

Another option for testing has been created specifically for dental materials. If this biological testing is used, a patient's blood sample is sent to a laboratory where the serum is evaluated for the presence of IgG and IgM antibodies to the chemical ingredients used in dental products.[736] The patient is then provided with a detailed list of which name-brand dental materials are safe for their use and which ones could result in a reaction. Two labs that currently offer this service are Biocomp Laboratories[737] and Clifford Consulting and Research.[738]

It is important to note that many factors can influence whether or not a patient improves after the removal of a metal implant or device. While many patients improve or even recover, there are some who do not. One obvious reason for this is if the patient is still being exposed to the metal or a different sensitizer through another implant, device, or other source. In a most unfortunate circumstance, patients can even have a reaction to the new implant or device. This is why it is crucial to select a biocompatible replacement.

Susceptible Populations:

In conclusion, the following populations could substantially reduce the risk of harm from mercury exposure by taking the suggested measures:

1) Minimization of exposure to dental mercury, vapor, and particulate for
   - All dental professionals, dental staff (including hygienists), and dental students who work with dental mercury amalgam
   - All patients with existing dental mercury amalgam fillings
   - All patients requiring the cleaning and/or removal of dental mercury amalgam fillings

2) Avoidance of dental mercury amalgam fillings for
   - All patients requiring new dental fillings
   - Pregnant or lactating women
   - Women of childbearing age
   - Fetuses
   - Children
   - Patients genetically predisposed to mercury toxicity
   - Patients with
     - Allergies, especially allergy to mercury
     - Alzheimer's disease
     - Amyotrophic lateral sclerosis (Lou Gehrig's disease)
     - Antibiotic resistance
     - Autism spectrum disorders
     - Autoimmune disorders/immunodeficiency
     - Cardiovascular problems
     - Chronic fatigue, fatigue, and/or myalgic encephalomyelitis/chronic fatigue syndrome
     - Complaints of unclear causation
     - Dermatitis
     - Fibromyalgia
     - Gastrointestinal issues and/or irritable bowel syndrome
     - Hearing loss
     - Kidney disease
     - Micromercurialism
     - Multiple sclerosis
     - Oral lichenoid reaction and oral lichen planus
     - Orofacial granulomatosis
     - Parkinson's disease
     - Periodontal disease
     - Psychological issues such as depression and anxiety
     - Reproductive dysfunction
     - Suicidal ideations
     - Symptoms of chronic mercury poisoning
     - Systemic lupus erythematosus
     - Thyroiditis
   - Patients undergoing chelation treatment or other detoxification treatments

MAJOR RECOMMENDATIONS

Recommendations:

1) Dental mercury amalgam fillings should not be used in dentistry.

2) Furthermore, safety precautions should be taken when working with and/or removing previously existing dental mercury amalgam fillings so as not to expose dentists, dental staff, dental students, dental patients, and their fetuses and breast-feeding children to mercury.

3) Moreover, based on scientific evidence, the practice of mercury-free dentistry [dentistry that does not place any new mercury amalgam fillings] and mercury-safe dentistry [dentistry that utilizes protective measures when removing existing mercury amalgam fillings] as a means of improving public health should especially be considered for the following reasons:

- WORKPLACE EXPOSURE:
  - Dentists, dental professionals, dental staff, and dental students are occupationally and chronically exposed to mercury released from dental mercury amalgam, and researchers and clinicians have raised concerns about the safety of dental personnel and students who work with dental mercury amalgam.[739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791]
  - This includes mercury released during hygiene, cleaning, and polishing procedures.
  - This includes mercury released during removal of old mercury amalgam fillings and replacement with new ones.
  - Scientific data indicates that female dental personnel are uniquely impacted by occupational exposure to mercury.[792 793 794 795 796 797 798]
- PATIENT EXPOSURE:
  - Mercury vapor is continuously emitted from dental mercury amalgam fillings, and particulate can also be discharged from dental mercury amalgam fillings,[799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824] which means that people are directly exposed to mercury as a result of their dental mercury amalgam fillings.
  - The output of mercury is intensified by the number of amalgam fillings in the mouth[825 826 827 828 829 830 831 832 833] and/or the number of amalgam surfaces in the mouth,[834 835 836 837 838 839 840 841 842 843 844 845] the type of the amalgam filling (i.e. specific content of metals),[846 847]and other factors such as chewing, teeth-grinding, brushing, dental treatments and procedures, and the consumption of hot liquids.[848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867]
  - This includes mercury released during hygiene, cleaning, and polishing procedures.
  - This includes mercury released during placement of new restorations and removal of old ones.
  - Ergo, men, women, and children patients are all at risk from the hazards of mercury released from dental mercury amalgam fillings.

- GENETIC PREDISPOSITION:
  - Mercury exposure from dental mercury amalgam particularly threatens individuals with genetic variants that can impact their response to mercury exposures such as those with CPOX4,[868] [869] [870] APOE(3,4),[871] [872] [873] [874] and BDNF (brain-derived neurotropic factor) polymorphisms.[875] [876] [877]
  - Recent research has identified a genetic predisposition to neurological impacts by mercury exposure from dental amalgam in male children with the polymorphism CPOX4.[878] [879]
  - Other than CPOX4, APOE, and BDNF polymorphisms, genetic traits that have been examined for association with health impairments caused by mercury exposure include metallothionein (MT) polymorphisms, [880] [881] catechol-O-methyltransferase (COMT) variants,[882] PON1 variants,[883] [884] MTHFR mutations and other genetic aspects.[885] [886] [887]

- WOMEN AND CHILDREN:
  - Fetal and infant exposure to mercury is known to have potentially serious health consequences, and the number of maternal amalgam fillings has been associated with mercury levels in cord blood;[888] [889] [890] in the placenta;[891] in the kidneys[892] [893] and liver[894] of fetuses; in fetal hair;[895] [896] and in the brain[897] and kidneys[898] of infants; as well as the risk of perinatal death.[899]
  - Mercury is excreted in breast milk of mothers with dental mercury amalgam fillings, and the mercury concentration in breast milk increases as the number of amalgam fillings in the mother increases. [900] [901] [902] [903]
  - Additional research has likewise examined the potential dangers that dental amalgam mercury poses to pregnant women, their fetuses, and infants.[904] [905] [906] [907] [908] [909] [910] [911] [912] [913] [914] [915] [916]
  - Children are also at-risk for health impairments linked to dental amalgam mercury fillings.[917] [918] [919] [920] [921] [922] [923] [924] [925] [926] [927] [928] [929] [930] [931] [932] [933] [934]

- ALLERGY TO MERCURY:
  - This is a completely separate health issue from toxicity.
  - Based on statistics from the North American Contact Dermatitis Group,[935] it is estimated that approximately 21 million Americans are allergic to mercury. However, this figure could be even higher because recent studies and reports tend to agree that metal allergies are on the rise.[936] [937]
  - Most patients are not tested for dental metal allergies, but, according to statistics in scientific research,[938] [939] millions of patients are allergic or sensitive to the dental mercury amalgam fillings in their mouths because of the mercury or the other components. In addition to research that demonstrates this is a pertinent issue,[940] [941] [942] [943] [944] [945] [946] a number of patients with health conditions linked to dental metal allergies have improved or recovered from their ailments after removal of their fillings.[947] [948] [949] [950] [951] [952] [953] [954] [955] [956] [957] [958] [959] [960] [961] [962] [963] [964] [965] [966] [967] [968] [969] [970] [971] [972] [973] [974] [975] [976] [977] [978] [979] [980]
  - Studies also establish that exposure to dental mercury amalgam fillings correlates with higher prevalence of mercury allergies.[981] [982]

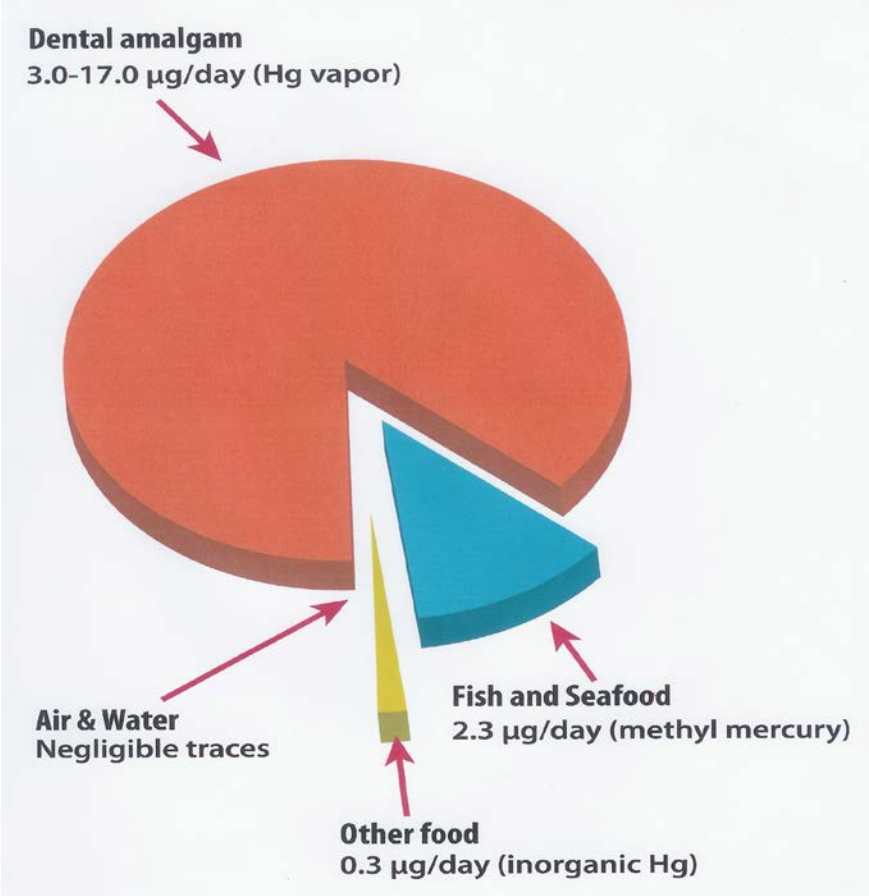
- ADDITIONAL AT-RISK POPULATIONS:
  - Dental mercury amalgam fillings can potentially exacerbate and/or contribute to the conditions stated below, as well as a myriad of other health outcomes:
    - Patients with
      - Allergies[983] [984] [985]
      - Alzheimer's disease[986] [987] [988] [989] [990]
      - Amyotrophic lateral sclerosis (Lou Gehrig's disease)[991]
      - Antibiotic resistance[992] [993] [994] [995]
      - Autism spectrum disorders[996] [997] [998] [999]
      - Autoimmune disorders/immunodeficiency[1000] [1001] [1002] [1003] [1004] [1005] [1006] [1007] [1008]
      - Cardiovascular problems[1009] [1010] [1011]
      - Chronic fatigue, fatigue, and/or myalgic encephalomyelitis/chronic fatigue syndrome[1012] [1013] [1014] [1015] [1016] [1017] [1018] [1019]
      - Complaints of unclear causation[1020] [1021] [1022] [1023] [1024] [1025] [1026]
      - Dermatitis[1027] [1028]
      - Fibromyalgia[1029] [1030] [1031] [1032]
      - Gastrointestinal issues and/or irritable bowel syndrome[1033] [1034] [1035]
      - Hearing loss[1036]
      - Kidney disease[1037] [1038] [1039] [1040] [1041] [1042] [1043] [1044]
      - Micromercurialism[1045]
      - Multiple sclerosis[1046] [1047] [1048] [1049]
      - Oral lichenoid reaction[1050] [1051] [1052] [1053] [1054] [1055] [1056] [1057] [1058] [1059] [1060] [1061] [1062] [1063] [1064] [1065] [1066] and oral lichen planus[1067] [1068] [1069] [1070] [1071]
      - Orofacial granulomatosis[1072] [1073]
      - Parkinson's disease[1074] [1075] [1076] [1077] [1078] [1079] [1080]
      - Periodontal disease[1081] [1082]
      - Psychological issues such as depression and anxiety[1083] [1084] [1085] [1086] [1087] [1088] [1089]
      - Reproductive dysfunction[1090] [1091]
      - Suicidal ideations[1092] [1093]
      - Symptoms of chronic mercury poisoning[1094]
      - Systemic lupus erythematosus[1095]
      - Thyroiditis[1096] [1097] [1098] [1099] [1100]
    - Patients undergoing chelation treatment or other detoxification treatments

Additional Data Supporting Recommendations:

The data on the following pages provide additional information about the hazards of dental mercury amalgam fillings and mercury exposure presented in these recommendations:

CHART 1: This chart shows that dental mercury amalgam is the major route of mercury exposure for the general public.

Sources of Human Mercury Exposure (World Health Organization [WHO], 1991)*



Note: In 1991, the WHO Environmental Health Criteria 118 concluded that "[e]stimated average daily intake and retention" from dental amalgam was **3.8-21 (3-17) ug/day.* [1101] *In the 2003 Executive Summary of this document, WHO stated: "Dental amalgam constitutes a potentially significant source of exposure to elemental mercury, with estimates of daily intake from amalgam restorations ranging from **1 to 27 ug/day**."* [1102] [Emphasis added]

TABLE 3: This is a list of common symptoms of elemental mercury vapor inhalation[1103] [1104] [1105] [1106] [1107] [1108] [1109] [1110] [1111] [1112] to be considered by practitioners when evaluating the possible side effects of dental mercury amalgam:

Acrodynia or similar symptoms such as emotional instability, loss of appetite, general weakness, and skin changes *(Magos and Clarkson, 2006)*	**Anorexia** *(Bernhoft, 2011)*	**Cardiovascular problems**/ labile pulse [frequent changes in heart rate]/tachycardia [abnormally rapid heartbeat] *(Klassen, 2008)*
Cognitive/neurological impairments/memory loss/decrease in mental function/difficulties with verbal and visual processing *(Echeverria et al., 1998; Clarkson and Magos, 2006; Magos and Clarkson, 2006; Syversen and Kaur, 2012; USEPA, 2016)*	**Delusions/delirium/hallucination** *(Bernhoft, 2011; Syversen and Kaur, 2012)*	**Dermatological conditions**/ dermographism [skin condition characterized by raised red marks]/dermatitis *(Bernhoft, 2011; Klassen, 2008)*
Endocrine disruption/enlargement of thyroid *(Bernhoft, 2011; Klassen, 2008)*	**Erethism** [symptoms such as irritability, abnormal responses to stimulation, and emotional instability] *(Bernhoft, 2011; Clarkson et al., 2003; Clarkson and Magos, 2006; Magos and Clarkson, 2006)*	**Fatigue** *(Bernhoft, 2011; Echeverria et al., 1998)*
Headaches *(USEPA, 2016)*	**Hearing loss** *(Rothwell and Boyd, 2008)*	**Immune system impairments** *(Bernhoft, 2011; Clarkson and Magos, 2006)*
Insomnia *(USEPA, 2016)*	**Nerve response changes**/peripheral neuropathy/decreased coordination/ decreased motor function/ polyneuropathy/neuromuscular changes such as weakness, muscle atrophy, and twitching *(Bernhoft, 2012; Clarkson et al., 2003; Clarkson and Magos, 2006; Echeverria et al., 1998; USEPA, 2016)*	**Oral manifestations**/ gingivitis/metallic taste/oral lichenoid lesions/stomatitis/salivation *(Bernhoft, 2011; Camisa et al., 1999; Clarkson et al., 2003; Clarkson and Magos, 2006; Klassen, 2008; Magos and Clarkson, 2006)*
Psychological issues/mood changes related to anger, depression, excitability, irritability, mood swings, and nervousness *(Echeverria et al., 1998; Klassen, 2008; Magos and Clarkson, 2006; USEPA, 2016)*	**Renal [kidney] problems**/ proteinuria/nephrotic syndrome *(Bernhoft, 2011; Clarkson et al., 2003; Clarkson and Magos, 2006; Klassen, 2008; USEPA, 2016; Syversen and Kaur, 2012)*	**Respiratory problems**/ bronchial irritation/bronchitis/cough/ dyspnea [breathing difficulties]/ pneumonitis/respiratory failure *(Bernhoft, 2011; Clarkson et al., 2003; Echeverria et al., 1998; Klassen, 2008; Magos and Clarkson, 2006; Syversen and Kaur, 2012; USEPA, 2016)*
Shyness [excessive shyness]/social withdrawal *(Magos and Clarkson, 2006; USEPA, 2016)*	**Tremors**/mercurial tremors/ intention tremors *(Bernhoft, 2011; Clarkson and Magos, 2006; Klassen, 2008; USEPA, 2016; Syversen and Kaur, 2012)*	**Weight loss** *(Bernhoft, 2011)*

EVALUATION OF SUGGESTED ACTION:

POTENTIAL BENEFITS

By minimizing mercury exposure from dental mercury amalgam fillings or completely avoiding the use of dental mercury amalgam fillings, an individual's total body burden of mercury is beneficially reduced. Minimizing or eliminating mercury exposure can potentially result in improvement and/or decreased risk of disease/illness/health impairments for

All dental professionals, dental staff (including hygienists), and dental students who work with dental mercury amalgam
All patients with existing dental mercury amalgam fillings
All patients requiring the cleaning and/or replacement of dental mercury amalgam fillings
All patients requiring new dental fillings
Pregnant or lactating women
Women of childbearing age
Fetuses
Children
Patients genetically predisposed to mercury toxicity
Patients with

- Allergies, especially allergy to mercury
- Alzheimer's disease
- Amyotrophic lateral sclerosis (Lou Gehrig's disease)
- Antibiotic resistance
- Autism spectrum disorders
- Autoimmune disorders/immunodeficiency
- Cardiovascular problems
- Chronic fatigue, fatigue, and/or myalgic encephalomyelitis/chronic fatigue syndrome
- Complaints of unclear causation
- Dermatitis
- Fibromyalgia
- Gastrointestinal issues and/or irritable bowel syndrome
- Hearing loss
- Kidney disease
- Micromercurialism
- Multiple sclerosis
- Oral lichenoid reaction and oral lichen planus
- Orofacial granulomatosis
- Parkinson's disease
- Periodontal disease
- Psychological issues such as depression and anxiety
- Reproductive dysfunction
- Suicidal ideations
- Symptoms of chronic mercury poisoning
- Systemic lupus erythematosus
- Thyroiditis

Patients undergoing chelation treatment or other detoxification treatments

As far as considering the costs of implementing these recommendations, in a report entitled "The Economics of Dental Amalgam Regulation," the authors noted that amalgam use is already declining and that restrictions on mercury are inevitable.[1113] The authors concluded, "We can then make the case that the overall health care expenditures necessary to deal with diseases and conditions, known or unknown, arising from the continued installation of amalgam could far exceed the relatively manageable cost increases to the consumer for the alternatives…This is not to mention the cost to the U.S. economy of lost work time owing to concomitant illness and disability."[1114]

Additionally, the IAOMT co-released a 2012 report from Concorde of Brussels, Belgium, which noted: "In order to obtain a useful perspective on the 'external' costs to society that are not included in the fees a dental patient pays the practitioner, we have examined 1) the costs of keeping dental mercury releases from being released into the environment, and 2) when dental mercury is no longer released into the environment, the various benefits accrued to human health and society. …[W]hichever analytical approach one chooses, even when using conservative assumptions, and even allowing for the uncertainties inherent in much of the cost data, it is clear that the real cost of using amalgam far outweighs the cost of using mercury-free composite..."[1115]

Yet, from a consumer standpoint, some insurance companies only cover the cost of dental mercury amalgam fillings, which means that oftentimes patients have to pay additional fees for alternative materials and techniques.[1116] However, the United Nations Environmental Programme (UNEP)'s 2013 "Minamata Convention on Mercury," signed by over 100 nations including the U.S., specifically discourages insurance policies and programs favoring dental mercury amalgam use over mercury-free dental restoration.[1117]

Since some countries have successfully eliminated dental mercury amalgam, ending the use of mercury in dentistry has already proven to be both feasible and economical. For example, Carsten Lassen and Jakob Maag, of the Nordic Council of Ministers, shared the following observation with a committee of the United Nations in 2010: "Dental treatment without mercury is becoming the norm."[1118] Norwegian dental researchers confirmed this statement in 2016 when they wrote: "Norwegian dentists showed positive attitudes towards composite as a restorative material one year after amalgam was banned."[1119]

Additionally, scientific research about the measurements of mercury in dental offices has been instrumental in helping policy-makers and dentists around the world take steps to adopt workplace standards that reduce mercury releases in the dental office. Researchers from the USA, Africa, Asia and the United Nations explained in their 2018 scientific review published in the peer-reviewed journal *Ambio*:

> For example, a civil society-initiated campaign to phase down the use of Hg amalgams in Asia and Africa faced initial resistance from policy-makers and dentists who did not believe that Hg posed a risk…On-the-spot measurements demonstrating high Hg levels proved to be a strong and salient method of risk communication with dentists across different cultural settings, and helped garner support for changing workplace practices to reduce Hg exposure.[1120]

POTENTIAL HARMS

1) There is a risk of additional mercury exposure to dentists, dental staff, hygienists, dental students, and patients from current unsafe procedures involving mercury amalgam fillings, especially if treatment, hygiene routines, removal, and/or replacement of fillings are conducted without taking appropriate protective measures.

2) As such, special consideration of any dental work involving amalgam mercury fillings should be given to

All dental professionals, dental staff (including hygienists), and dental students who work with dental mercury amalgam

All patients with existing dental mercury amalgam fillings

All patients requiring the cleaning and/or removal of dental mercury amalgam fillings

All patients requiring new dental fillings

Pregnant or lactating women

Women of childbearing age

Fetuses

Children

Patients genetically predisposed to mercury toxicity

Patients with

- Allergies, especially allergy to mercury
- Alzheimer's disease
- Amyotrophic lateral sclerosis (Lou Gehrig's disease)
- Antibiotic resistance
- Autism spectrum disorders
- Autoimmune disorders/immunodeficiency
- Cardiovascular problems
- Chronic fatigue, fatigue, and/or myalgic encephalomyelitis/chronic fatigue syndrome
- Complaints of unclear causation
- Dermatitis
- Fibromyalgia
- Gastrointestinal issues and/or irritable bowel syndrome
- Hearing loss
- Kidney disease
- Micromercurialism
- Multiple sclerosis
- Oral lichenoid reaction and oral lichen planus
- Orofacial granulomatosis
- Parkinson's disease
- Periodontal disease
- Psychological issues such as depression and anxiety
- Reproductive dysfunction
- Suicidal ideations
- Symptoms of chronic mercury poisoning
- Systemic lupus erythematosus
- Thyroiditis

Patients undergoing chelation treatment or other detoxification treatments

3) Alternative dental restorative materials should likewise be assessed for safety and biocompatibility, especially on an individual basis.

4) Some insurance companies only cover the cost of dental mercury amalgam fillings which means that oftentimes consumers have to pay additional fees for alternative materials and techniques.[1121]

Furthermore, whereas amalgams are used for 45% of all direct dental restorations worldwide,[1122] articles published in the *Journal of the American Dental Association* have established that these mercury fillings are used on 51.0% of White/Caucasian Americans, on 53.4% of Black/African Americans, on 72.9% of American Indians/Alaska Natives/Asians/Pacific Islanders,[1123] and on more than 75% of posterior restorations for new recruits to the U.S. Navy and Marines.[1124]

However, the United Nations Environmental Programme's 2013 "Minamata Convention on Mercury," signed by over 100 nations including the United States, specifically discourages insurance policies and programs favoring dental mercury amalgam use over mercury-free dental restoration.[1125]

CONTRAINDICATIONS

1) Dentists, dental staff, and dental students working with mercury amalgam fillings during procedures such as cleaning, hygiene, and/or replacement are significantly exposed, along with their patients, fetuses, and breast-feeding children to mercury. Safety measures, when used, diminish but do not totally eliminate exposure.

2) Removal of dental mercury amalgam fillings without appropriate protection causes significant mercury exposure to dentists, dental staff, dental students, and patients, especially women of childbearing age, pregnant or lactating women, fetuses, children, and other sensitive populations.

3) Due to mercury releases, polishing, placement, removal, or any disruption of a dental mercury amalgam filling should not be done by dental personnel who are pregnant or lactating and should not be conducted upon patients who are pregnant or lactating.

4) Alternative dental restorative materials should likewise be assessed for safety and biocompatibility, especially on an individual basis.

QUALIFYING STATEMENTS

Although the use of dental mercury amalgam fillings has reportedly been decreasing in developing countries,[1126] the results of a survey published in 2017 in the *Journal of Public Health Dentistry* suggested that 62% of general dentists and 56% of pediatric dentists in the U.S. were still using dental mercury amalgam.[1127] Additionally, billions of people have dental amalgam fillings in their mouths,[1128] which means that even when the use of dental mercury ends, safe removal of amalgam fillings will continue to be a pertinent issue.

Whereas the American Dental Association (ADA), the United States Food and Drug Administration (FDA), and other groups have endorsed the use of dental mercury amalgam, numerous peer-reviewed, scientific studies report risks associated with dental mercury amalgam fillings. In fact, over 350 articles produced by a literature search on PubMed (collected by the U.S. National Library of Medicine National Institutes of Health) and a hand-search of IAOMT documents (collected by the International Academy of Oral Medicine and Toxicology) have been cited as evidence for this document.

The PubMed literature search was conducted online at the PubMed database from September 16, 2013 to March 6, 2014. The purpose of the research was to answer the following question: "Are there risks associated with dental mercury?" The PubMed search term used was "dental mercury risk," and clinical trials and reviews were included in the search. The search was conducted from March 6, 2014 to as far back as PubMed provided results (1972), and the PubMed search resulted in 280 sources.

All PubMed sources were categorized into risk, no risk, or ambiguous categories. Articles were excluded from the final results of the search if they were not in English, they were not relevant (i.e. not significantly about dental mercury amalgam), they were an erratum, they were a comment on a different article, and/or if the abstract and study could not be found. Thus, 124 articles were excluded. Many of the articles that could not be located were not peer-reviewed and appeared in trade journals or journals of localized dental groups. Based on the 156 articles that were included, the PubMed search yielded 86 articles (55.1%) suggesting risk, 55 articles (35.3%) suggesting no risk, and 15 articles (9.6%) deemed as ambiguous.

An IAOMT hand-search of documents was conducted to supplement the PubMed search. The hand-search was originally conducted from September 16, 2013 to March 6, 2014, but it was first updated from December 1, 2015 to December 23, 2015, and then updated again from May 1, 2018 to March 20, 2019. Over 1,200 documents about this issue are currently on file in the IAOMT's Library, which has documents dating from 1926 to present day. Of these hundreds of sources, those used for this article were limited to the scientific and regulatory documents most relevant to dental mercury amalgam health risks.

Even more specifically, sources for this paper were found by searching the IAOMT Library for scientific evidence of health risks from dental mercury exposures to the general population, pregnant women, fetuses, children, dental professionals, and those individuals who are genetically predisposed, who have an allergy to mercury, or who suffer from health conditions that have been potentially linked to mercury by scientific research. These health conditions include Alzheimer's disease, amyotrophic lateral sclerosis (Lou Gehrig's disease), antibiotic resistance, autism spectrum disorders, autoimmune disorders/immunodeficiency, cardiovascular problems, chronic fatigue syndrome, hearing loss, kidney disease, multiple sclerosis, oral lichenoid reaction and oral lichen planus, Parkinson's disease, periodontal disease, and reproductive dysfunction.

The over 350 articles from the PubMed and IAOMT searches demonstrating risk have been used as sources for this document since they serve as evidence of the known hazards of dental mercury amalgam.

However, it should be noted that there were also a number of scientific studies suggesting dental amalgam does not pose a health risk, dental amalgam is safe, releases of mercury from dental amalgam are within acceptable exposure levels, and/or there is insignificant data to prove its hazards. For example, our PubMed literature search yielded 55 sources finding or suggesting "no risk." Below is an abridged list of some of theses sources, which suggested "no risk" for the following populations and scenarios:

- Children[1129] [1130] [1131] [1132]
- General health/general population and/or exposure levels[1133] [1134] [1135] [1136] [1137] [1138] [1139] [1140] [1141] [1142] [1143] [1144] [1145] [1146] [1147] [1148] [1149] [1150] [1151] [1152] [1153] [1154] [1155]
- Pregnancy[1156] [1157] [1158] [1159] [1160]
- Occupational[1161] [1162] [1163] [1164] [1165] [1166] [1167] [1168] [1169] [1170] [1171]
- Other: Alzheimer's disease,[1172] antibiotic resistance,[1173] autism,[1174] [1175] [1176] fatigue,[1177] immune system,[1178] [1179] kidney function,[1180] [1181] [1182] [1183] multiple sclerosis,[1184] [1185] [1186] and Parkinson's disease[1187]

It merits consideration that the technology of studying mercury's impact on human health has evolved over the past several decades, and some studies advocating the safety of dental mercury amalgam failed to take into account genetic factors, susceptible populations, metal allergies, and other variables that are now known to impact each person's response to mercury.[1188]

Another area of concern in relation to research about dental mercury amalgam is agreeing upon the definition of "risk." To illustrate this point, a number of scientific articles claim that dental mercury amalgam is safe for the "general population." Yet, given the current knowledge that sensitivities, biological predispositions, and a gamut of other conditions influence an individual's reaction to mercury exposure, [1189] the concept of accurately applying safety to the "general population" becomes highly subjective. This also applies to evaluating dental mercury amalgam risks for specific health conditions such as Alzheimer's disease, autism, or multiple sclerosis.

Further issues with defining "risk" for dental mercury amalgam arise when considering the impact these restorations might have on an individual for a short amount of time versus long-term exposure, especially since many individuals have these fillings in their mouths for many years of their lives.[1190]

In particular, research has shown that an individual accumulates a chronic dose of mercury ranging from "0.2 to 0.4 μg/day per amalgam-filled tooth surface, or 0.5 to 1 μg/day/amalgam-filled tooth, depending on age and other factors."[1191] As detailed in other sections of this document, how each person processes mercury exposure is dependent on a wide-range of circumstances.

Practicing mercury-free dentistry [dentistry that does not place any new mercury amalgam fillings] and mercury-safe dentistry [dentistry that utilizes protective measures when removing existing mercury amalgam fillings] undoubtedly reduces the danger of chronic mercury exposure to dentists, their staff, dental students, and patients.

This is especially important considering that mercury exposures also occur from non-dental sources. For example, the issue of amalgam fillings contributing to human mercury exposures from fish consumption has been studied.[1192] [1193] The topic was discussed in 2013 by the European Food Safety Authority's Panel on Contaminants in the Food Chain (CONTAM). The EFSA Panel described the increased mercury danger from the combination of fish and dental amalgam: "The estimated exposure to inorganic mercury in Europe from the diet alone does not exceed the TWI [tolerable weekly intake]. Inhaled elemental mercury vapour from dental amalgam, which after absorption is converted to inorganic mercury, is an additional source that is likely to increase the internal inorganic mercury exposure; thus the TWI [tolerable weekly intake] might be exceeded."[1194]

Additionally, it is essential to acknowledge that there are various escalating levels of protection techniques for limiting mercury exposure during mercury-related dental procedures. Depending on the technique/s chosen, different results are reached in personal and patient protection levels from exposure. The more thorough the protection, the more complex and costly the technique, and as such, financial, cultural, and professional decisions are part of the process as to the level of protection ultimately used.

Overall, it is apparent that dental mercury amalgam and all dental restorative materials should be assessed for safety and biocompatibility with special consideration for all populations and all known risk factors.[1195]

DESCRIPTION OF IMPLEMENTING SUGGESTED ACTION AND RESOURCES:

Research has suggested that resin composites or compomers are used for 55% of direct dental restorations worldwide.[1196] Thus, many dentists have already stopped using dental mercury amalgam; however, many of these dentists and others still require training in mercury-free dentistry [dentistry that does not place any new mercury amalgam fillings]. Since other countries have banned or strictly limited dental mercury amalgam, their dental schools and industry practices shed light upon how to make a complete transition away from dental mercury amalgam.

Yet, it must also be recognized again that since all dentists still must remove dental mercury amalgam fillings, dentists and dental students require training in mercury-safe dentistry [dentistry that utilizes protective measures when removing existing mercury amalgam fillings]. Essentially, properly applied protection techniques can minimize mercury exposure to dental workers, dental students, patients, fetuses, and other susceptible and sensitive populations.

The IAOMT has developed free dental education resources detailing implementation strategies for mercury-free dentistry [dentistry that does not place any new mercury amalgam fillings] and mercury-safe dentistry [dentistry that utilizes protective measures when removing existing mercury amalgam fillings], including information for dentists, physicians, health professionals, patients, and the general public. These resources include the following:

- IAOMT's online learning videos, including dental education about mercury
- The IAOMT's Safe Mercury Amalgam Removal Technique (SMART)
- IAOMT's Dental Mercury Facts pages
- More resources available at www.iaomt.org and www.theSMARTchoice.com

DISCLAIMER:

Legally, it must be noted here that the IAOMT has used scientific evidence, expert opinion, and its professional judgment in assessing this information and formulating these recommendations. No other warranty or representation, expressed or implied, as to the interpretation, analysis, and/or efficacy of the information is intended in this position paper. The views expressed in this publication do not necessarily reflect the views of the IAOMT's Executive Committee, Scientific Advisory Council, administration, membership, employees, contractors, etc. This report is based solely on the information the IAOMT has obtained to date, and updates should be expected. Furthermore, as with all guidelines, the potential for exceptions to the recommendations based upon individual findings and health history must likewise be recognized.

IAOMT disclaims any liability or responsibility to any person or party for any loss, damage, expense, fine, or penalty which may arise or result from the use of any information or recommendations contained in this report. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the sole responsibility of the third party.

AFFILIATIONS AND PROFESSIONAL DEGREES OF AUTHORS:

Dr. John Kall: DMD, FAGD, MIAOMT; Chairman, Board of Directors of the IAOMT; Member of the Scientific Review Committee of the IAOMT; Member of the American Dental Association; Fellow of the Academy of General Dentistry and Past President of the KY Chapter of the AGD; Member of the Louisville Dental Society; Member of the Kentucky Dental Association; University of Louisville School of Dentistry, DMD.

Dr. Kindal Robertson: DDS, AIAOMT; Chair of the Scientific Review Committee of the IAOMT; Member of the Alberta Dental Association; Member of the Canadian Dental Association; Education at University of Calgary, Bachelors and Master of Science in Biochemistry, and University of Alberta in Dentistry.

Dr. Phillip Sukel: DDS, MIAOMT; Charter, Life Member, Board of Director and Past President of the IAOMT; Former chair and current member of the Scientific Review Committee of the IAOMT; Member of the Academy of General Dentistry, Life Member of American Equilibration Society, Member of American Academy of Cranial Facial Pain, Member of American Academy of Dental Sleep Medicine, Member of the Institute of Advanced Laser Dentistry, Member of the American Academy of Ozonetherapy; University of Illinois College of Dentistry, BS and DDS.

Amanda Just: MS; Program Director of the IAOMT; Dental consumer who has shared her writings about the impact of dental amalgam mercury fillings with the United Nations Environment Programme, the U.S. Department of State, the U.S. Food and Drug Administration, and various NGOs; Master of Science in Education from University of New Haven; Bachelor of Arts in History from the College of William and Mary.

ENDNOTES:

[1] Adapted from Haley BE, Virtue WE. Position statement on dental amalgam from the International Academy of Oral Medicine and Toxicology submitted to the European Commission. IAOMT; October 10, 2012. Available from IAOMT Web site: https://iaomt.org/wp-content/uploads/article_2012%20IAOMTpositionstatement%20ondentalmercuryamalgam.pdf. Accessed March 2019.

[2] United States Food and Drug Administration. Medical Devices: about dental amalgam fillings. Available from FDA Web site: http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DentalProducts/DentalAmalgam/ucm171094.htm. Accessed March 2019.

[3] Health Canada. The Safety of Dental Amalgam. Minister of Supply and Services Canada; 1996: 3. Available from Health Canada Web site: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.

[4] United Nations Environment Programme. *Minamata Convention on Mercury: Text and Annexes*. 2013: 48. Available from UNEP's Minamata Convention on Mercury Web site: http://www.mercuryconvention.org/Portals/11/documents/Booklets/Minamata%20Convention%20on%20Mercury_booklet_English.pdf. Accessed March 2019.

[5] United Nations Environment Programme. *Minamata Convention on Mercury: Text and Annexes*. 2013: 48. Available from UNEP's Minamata Convention on Mercury Web site: http://www.mercuryconvention.org/Portals/11/documents/Booklets/Minamata%20Convention%20on%20Mercury_booklet_English.pdf. Accessed March 2019.

[6] REGULATION (EU) 2017/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 on mercury, and repealing Regulation (EC) No 1102/2008. Official Journal of the European Union. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0852&rid=2. Accessed March 2019.

[7] REGULATION (EU) 2017/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 on mercury, and repealing Regulation (EC) No 1102/2008. Official Journal of the European Union. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0852&rid=2. Accessed March 2019.

[8] UN Environment. Global Mercury Supply, Trade and Demand. Geneva, Switzerland: United Nations Environment Programme, Chemicals and Health Branch. 2017. Available from: http://wedocs.unep.org/bitstream/handle/20.500.11822/21725/global_mercury.pdf?sequence=1&isAllowed=y. Accessed March 2019.

[9] Dental Board of California. The Facts about Fillings. California Department of Consumer Affairs. Available from: http://www.dbc.ca.gov/formspubs/pub_dmfs_english_webview.pdf . Accessed March 2019.

[10] Connecticut Department of Energy and Environmental Protection. Fillings: The Choices You Have; Mercury Amalgam and Other Filling Materials. Hartford, CT: Connecticut Department of Energy and Environmental Protection. Available from: https://www.ct.gov/deep/lib/deep/mercury/gen_info/fillings_brochure_one_page.pdf. Accessed March 2019.

[11] Maine Bureau of Health. Filling Materials Brochure. 2002. Available from: http://www.vce.org/mercury/Maine_AmalBrochFinal2.pdf. Accessed March 2019.

[12] Advisory Committee on Mercury Pollution. Dental Amalgam Fillings: Environmental and Health Facts for Dental Patients. Waterbury, Vermont. Available from: https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/DentalAmalgamFactSheet.pdf. Accessed March 2019.

[13] United States Environmental Protection Agency. *Effluent Limitation Guidelines and Standards for the Dental Category Mercury in Dental Amalgam.* EPA - 821-F-14-002. September 2014.

[14] United States Environmental Protection Agency. Dental effluent guidelines. Available from: https://www.epa.gov/eg/dental-effluent-guidelines. Last updated December 1, 2017. Accessed March 2019.

[15] United States Environmental Protection Agency. Dental effluent guidelines. Available from: https://www.epa.gov/eg/dental-effluent-guidelines. Last updated December 1, 2017. Accessed March 2019.

[16] United States Department of Labor. OSHA Act of 1970. Occupational Safety and Health Administration. Available from: https://www.osha.gov/laws-regs/oshact/completeoshact. Accessed March 2019.

[17] Occupational Safety and Health Administration. Workers' Rights. 2011. Available from: http://www.osha.gov/Publications/osha3021.pdf. Accessed March 2019.

[18] United States Department of Labor Occupational Safety and Health Administration. Safety and health topics: chemical hazards and toxic substances. Available from: https://www.osha.gov/SLTC/hazardoustoxicsubstances/. Accessed March 2019.

[19] SDI. Safety Data Sheet for Permite; Lojic +; GS-80, GS-80 Spherical; F400; Ultracaps +; Ultracaps S; SDI Admix; SDI Spherical and New Ultrafine Capsules; Australia, Brazil, Ireland, and the USA. Date/Revised: June 25, 2015. Available from: http://www.sdi.com.au/images/stories/MSDS/MSDS_EN/Amalgam_DS_EN.pdf. Accessed March 2019.

[20] Kerr Corporation. Safety Data Sheet for Tytin FC ™; Orange, CA, USA; Date of Issue/Revision: November 6, 2014. Available from: https://www.dhpionline.com/msds/109-29996.pdf. Accessed March 2019.

[21] Henry Schein; SDS Acc. to OSHA (HCS/GHS), Version Number 3; Stratosphere, Ionosphere, Troposphere; Melville, NY, USA: Henry Schein. Revision date: Revision Date: 08/04/2016. Available from: https://www.henryschein.ca/MSDS/1056614.pdf. Accessed March 2019.

[22] United States Food and Drug Administration. Joint Meeting of the Dental Products Panel (CDRH) and the Peripheral and Central Nervous System Drugs Advisory Committee (CDER). September 6-7, 2006. Available from: http://web.archive.org/web/20090513110236/http://www.fda.gov/cdrh/meetings/090606-summary.html. Accessed March 2019.
[23] Larose P, Koral S, Kall J, Smith K, Love J. Public Comment to the FDA Proposed Classification of Mixed Encapsulated Dental Amalgams. ChampionsGate, FL: International Academy of Medicine and Toxicology. July 28, 2009. Available from: http://iaomt.org/wp-content/uploads/article_FDAcomment.pdf. Accessed March 2019.
[24] United States Food and Drug Administration. Medical Devices: PMA Approvals. Available from: http://www.fda.gov/medicaldevices/productsandmedicalprocedures/deviceapprovalsandclearances/pmaapprovals/default.htm. Accessed March 2019.
[25] United States Food and Drug Administration. Press Announcements: FDA Issues Final Regulation on Dental Amalgam [press release]. July 28, 2009. Available from: http://toxcenter.org/artikel/FDA-schlaeft-seit-20-Jhr-beim-Amalgam.pdf. Accessed March 2019.
[26] United States Food and Drug Administration. Dental Devices: Classification of Dental Amalgam, Reclassification of Dental Mercury, Designation of Special Controls for Dental Amalgam, Mercury, and Amalgam Alloy. 2009. Available from: http://www.fda.gov/downloads/MedicalDevices/ProductsandMedicalProcedures/DentalProducts/DentalAmalgam/UCM174024.pdf. Accessed March 2019.
[27] Associated Press. "Warning issued for silver dental fillings." *USA Today*. 6/12/2008. Available from: http://usatoday30.usatoday.com/news/health/2008-06-12-dental-fillings_N.htm. Accessed March 2019.
[28] United States Food and Drug Administration. Addendum to the Dental Amalgam White Paper: Response to 2006 Joint Advisory Panel Comments and Recommendations. July 2009. Available from: http://www.fda.gov/downloads/medicaldevices/productsandmedicalprocedures/dentalproducts/dentalamalgam/ucm173908.pdf. Accessed March 2019.
[29] United States Food and Drug Administration. Joint Meeting of the Dental Products Panel (CDRH) and the Peripheral and Central Nervous System Drugs Advisory Committee (CDER). September 6-7, 2006. Available from: http://web.archive.org/web/20090513110236/http://www.fda.gov/cdrh/meetings/090606-summary.html. Accessed March 2019.
[30] Love JM, Reeves RE. Petition for Reconsideration, hereby request that the Food & Drug Administration reconsider the classification of dental amalgam fillings into Class II per the FDA's August 4, 2009, Final Rule. Hand-Delivered, Sep. 3, 2009. Available from IAOMT Web site: http://iaomt.org/wp-content/uploads/article_petitionforreconsideration090309.pdf. Accessed March 2019.
[31] United States Food and Drug Administration. Dental Products Panel Transcript. Center for Devices and Radiological Health Medical Devices Committee; December 15, 2010. Available from: https://wayback.archive-it.org/7993/20170404141643/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/MedicalDevices/MedicalDevicesAdvisoryCommittee/DentalProductsPanel/UCM242363.pdf. Accessed March 2019.
[32] United States Food and Drug Administration. Dental Products Panel Transcript. Center for Devices and Radiological Health Medical Devices Committee; December 15, 2010. Available from: https://wayback.archive-it.org/7993/20170404141643/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/MedicalDevices/MedicalDevicesAdvisoryCommittee/DentalProductsPanel/UCM242363.pdf. Accessed March 2019.
[33] Cole G, Kall J, Just A. Lawsuit exposes FDA denial of dental amalgam mercury hazards. Originally published in Dr. Bicuspid on March 14, 2014. Available from: https://iaomt.org/wp-content/uploads/DrBicuspid-Lawsuit.pdf. Accessed March 2019.
[34] FDA Safety Communication: Reducing Exposure to Mercury Vapor Released from Dental Amalgam ("Silver Fillings"). January XX, 2012. Available from IAOMT Web site: https://iaomt.org/text-of-fdas-actual-2012-amalgam-safety-proposal/. Accessed March 2019.
[35] United States Food and Drug Administration. November 13-14, 2019: Immunology Devices Panel of the Medical Devices Advisory Committee Meeting Announcement. Available from: https://www.fda.gov/advisory-committees/advisory-committee-calendar/november-13-14-2019-immunology-devices-panel-medical-devices-advisory-committee-meeting-announcement. Accessed October 6, 2020.
[36] United States Food and Drug Administration. Epidemiological Evidence on the Adverse Health Effects Reported in Relation to Mercury from Dental Amalgam: Systemic Literature Review (2010- Present). September 2019. Available from: https://www.fda.gov/media/131151/download. Accessed October 6, 2020.
[37] United States Food and Drug Administration. Biological Responses to Metal Implants. September 2019. Available from: https://www.fda.gov/media/131150/download. Accessed October 6, 2020.
[38] United States Food and Drug Administration. FDA Issues Recommendations for Certain High-Risk Groups Regarding Mercury-Containing Dental Amalgam. September 24, 2020. Available from: https://www.fda.gov/news-events/press-announcements/fda-issues-recommendations-certain-high-risk-groups-regarding-mercury-containing-dental-amalgam. Accessed October 6, 2020.
[39] United States Food and Drug Administration. FDA Issues Recommendations for Certain High-Risk Groups Regarding Mercury-Containing Dental Amalgam. September 24, 2020. Available from: https://www.fda.gov/news-events/press-announcements/fda-issues-recommendations-certain-high-risk-groups-regarding-mercury-containing-dental-amalgam. Accessed October 6, 2020.
[40] United States Food and Drug Administration. Guidance for Industry: Premarketing Risk Assessment. U.S. Department of Health and Human Services, Center for Drug Evaluation and Research (CDER), Center for Biologics Evaluation and Research

(CBER). Dated March 2005. Available from: https://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm072002.pdf. Accessed March 2019.

[41] United States Food and Drug Administration. Dental Products Panel Transcript. Center for Devices and Radiological Health Medical Devices Committee; December 14, 2010. Available from: https://wayback.archive-it.org/7993/20170404141639/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/MedicalDevices/MedicalDevicesAdvisoryCommittee/DentalProductsPanel/UCM242357.pdf. March 2019.

[42] Richardson, GM, Wilson, R, Allard, D, Purtill, C, Douma, S, Gravière, J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Science of the Total Environment.* 2011; 409(20): 4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.

[43] United States Food and Drug Administration. 24 hours summary December 14-15, 2010 Dental Products Panel. Available from: https://wayback.archive-it.org/7993/20170404141638/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/MedicalDevices/MedicalDevicesAdvisoryCommittee/DentalProductsPanel/UCM237211.pdf. Accessed March 2019.

[44] United Nations Environment Programme. Rio Declaration on Environment and Development. June 2-14, 1992. Available from: http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm. Accessed March 2019.

[45] Science and Environmental Health Network. Wingspread Conference on the Precautionary Principle. January 26, 1998. Available from: http://www.sehn.org/wing.html. Accessed March 2019.

[46] Science and Environmental Health Network. Wingspread Conference on the Precautionary Principle. January 26, 1998. Available from: http://www.sehn.org/wing.html. Accessed March 2019.

[47] World Health Organization. Mercury in Health Care: Policy Paper. Geneva, Switzerland; August 2005: 1. Available from: http://www.who.int/water_sanitation_health/medicalwaste/mercurypolpaper.pdf. Accessed March 2019.

[48] Health Canada. The Safety of Dental Amalgam. Ottawa, Ontario; 1996: 4. Available from: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.

[49] Kennedy D. Smoking Teeth = Poison Gas [online video]. Champion's Gate, FL: IAOMT; Uploaded on January 30, 2007. Available from: http://www.youtube.com/watch?v=9ylnQ-T7oiA. Accessed March 2019.

[50] Barregård L. Biological monitoring of exposure to mercury vapor. *Scandinavian Journal of Work, Environment & Health*. 1993:45-9. Available from: https://www.sjweh.fi/download.php?abstract_id=1532&file_nro=1. Accessed June 2019.

[51] Gay DD, Cox RD, Reinhardt JW: Chewing releases mercury from fillings. *Lancet.* 1979; 1(8123):985-6.

[52] Hahn LJ, Kloiber R, Vimy MJ, Takahashi Y, Lorscheider FL. Dental" silver" tooth fillings: a source of mercury exposure revealed by whole-body image scan and tissue analysis. *The FASEB Journal*. 1989; 3(14):2641-6. .

[53] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.

[54] Hanson M, Pleva J. The dental amalgam issue. A review. *Experientia*. 1991; 47(1):9-22. Available from: https://www.researchgate.net/publication/21157262_The_Dental_Amalgam_Issue_A_Review. Accessed June 2019.

[55] Leistevuo J, Leistevuo T, Helenius H, Pyy L, Osterblad M, Huovinen P, Tenovuo J. Dental amalgam fillings and the amount of organic mercury in human saliva. *Caries Res.* 2001; 35(3):163-6. Abstract available from: http://www.karger.com/Article/Abstract/47450. Accessed March 2019.

[56] Mahler DB, Adey JD, Fleming MA. Hg emission from dental amalgam as related to the amount of Sn in the Ag-Hg Phase. *J Dent Res*. 1994; 73(10):1663-8. Abstract available from: http://jdr.sagepub.com/content/73/10/1663.short. Accessed March 2019.

[57] Nylander M, Friberg L, Lind B. Mercury concentrations in the human brain and kidneys in relation to exposure from dental amalgam fillings. *Swed Dent J*. 1987; 11(5): 179-187. Abstract available from: http://europepmc.org/abstract/med/3481133. Accessed March 2019.

[58] Richardson GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.

[59] Stock A. [Zeitschrift fuer angewandte Chemie, 29. Jahrgang, 15. April 1926, Nr. 15, S. 461-466, *Die Gefaehrlichkeit des Quecksilberdampfes*, von Alfred Stock (1926).] The Dangerousness of Mercury Vapor. Translated by Birgit Calhoun. Available from: http://www.stanford.edu/~bcalhoun/AStock.htm. Accessed March 2019.

[60] Vimy MJ, Lorscheider FL. Intra-oral air mercury released from dental amalgam. *J Den Res.* 1985; 64(8):1069-71.

[61] Vimy MJ, Lorscheider FL: Serial measurements of intra-oral air mercury; Estimation of daily dose from dental amalgam. *J Dent Res.* 1985; 64(8):1072-5. Abstract available from: http://jdr.sagepub.com/content/64/8/1072.short. Accessed March 2019.

[62] Vimy MJ, Luft AJ, Lorscheider FL. Estimation of mercury body burden from dental amalgam computer simulation of a metabolic compartment model. *J. Dent. Res.* 1986; 65(12):1415-1419. Abstract available from: http://jdr.sagepub.com/content/65/12/1415.short. Accessed March 2019.

[63] Consumers for Dental Choice. *Measurably Misleading.* Washington, D.C.: Consumers for Dental Choice; August 2014. p. 4. Campaign for Mercury Free Dentistry Web site. http://www.toxicteeth.org/measurablymisleading.aspx. Accessed March 2019.

[64] Consumers for Dental Choice. *Measurably Misleading.* Washington, D.C.: Consumers for Dental Choice; August 2014. p. 4. Campaign for Mercury Free Dentistry Web site. http://www.toxicteeth.org/measurablymisleading.aspx. Accessed March 2019.

[65] Mercury Policy Project. What patients don't know: dentists' sweet tooth for mercury. February 14, 2006.

[66] Chirba-Martin M, Welshhans C. An uncertain risk and an uncertain future: assessing the legal implications of mercury amalgam fillings. *Health Matrix Clevel.* 2004; 14: 293-324. Available from: http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1100&context=lsfp. Accessed March 2019.
[67] Consumers for Dental Choice. *Measurably Misleading.* Washington, D.C.: Consumers for Dental Choice; August 2014. p. 4. Campaign for Mercury Free Dentistry Web site. Available from: http://www.toxicteeth.org/measurablymisleading.aspx. Accessed March 2019.
[68] World Health Organization. Mercury in Health Care: Policy Paper. Geneva, Switzerland; August 2005. Available from WHO Web site: http://www.who.int/water_sanitation_health/medicalwaste/mercurypolpaper.pdf. Accessed March 2019.
[69] Aaseth J, Hilt B, Bjørklund G. Mercury exposure and health impacts in dental personnel. *Environmental Research*. 2018; 164:65-9. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0013935118300847. Accessed March 2019.
[70] Al-Amodi HS, Zaghloul A, Alrefai AA, Adly HM. The hematological changes in dental staff: their relation to mercury vapor. *International Journal of Pharmaceutical Research & Allied Sciences*. 2018; 7(2).
[71] Al-Saleh I, Al-Sedairi A. Mercury (Hg) burden in children: The impact of dental amalgam. *Sci Total Environ*. 2011; 409(16):3003-3015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711004359. Accessed March 2019.
[72] Al-Zubaidi ES, Rabee AM. The risk of occupational exposure to mercury vapor in some public dental clinics of Baghdad city, Iraq. *Inhalation Toxicology*. 2017; 29(9):397-403. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/08958378.2017.1369601. Accessed March 2019.
[73] Ask K, Akesson A, Berglund M, Vahter M. Inorganic mercury and methylmercury in placentas of Swedish women. *Environ Health Perspect.* 2002; 110(5):523-6. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240842/pdf/ehp0110-000523.pdf. Accessed March 2019.
[74] Barregård L. Biological monitoring of exposure to mercury vapor. *Scandinavian Journal of Work, Environment & Health*. 1993:45-9. Available from: https://www.sjweh.fi/download.php?abstract_id=1532&file_nro=1. Accessed March 2019.
[75] Bjørklund G, Hilt B, Dadar M, Lindh U, Aaseth J. Neurotoxic effects of mercury exposure in dental personnel. *Basic & Clinical Pharmacology & Toxicology*. 2018: 1-7. Abstract available from: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13199. Accessed March 2019.
[76] de Oliveira MT, Pereira JR, Ghizoni JS, Bittencourt ST, Molina GO. Effects from exposure to dental amalgam on systemic mercury levels in patients and dental school students. *Photomed Laser Surg.* 2010; 28(S2): S-111. Abstract available from: https://www.researchgate.net/profile/Jefferson_Pereira/publication/47369541_Effects_from_exposure_to_dental_amalgam_on_systemic_mercury_levels_in_patients_and_dental_school_students/links/02bfe50f9f8bf8946e000000.pdf. Accessed March 2019.
[77] Fredin B. Mercury release from dental amalgam fillings. *Int J Risk Saf Med.* 1994; 4(3): 197-208.
[78] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[79] Gay DD, Cox RD, Reinhardt JW: Chewing releases mercury from fillings. *Lancet.* 1979; 1(8123):985-6.
[80] Goldschmidt PR, Cogan RB, Taubman SB. Effects of amalgam corrosion products on human cells. *J Period Res*. 1976; 11(2):108-15. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0765.1976.tb00058.x/abstract. Accessed March 2019.
[81] Hahn LJ, Kloiber R, Vimy MJ, Takahashi Y, Lorscheider FL. Dental" silver" tooth fillings: a source of mercury exposure revealed by whole-body image scan and tissue analysis. *The FASEB Journal.* 1989; 3(14):2641-6. Available from: http://www.fasebj.org/content/3/14/2641.full.pdf. Accessed March 2019.
[82] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.
[83] Hanson M, Pleva J. The dental amalgam issue. A review. *Experientia*. 1991; 47(1):9-22. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/21157262_The_dental_amalgam_issue._A_review/links/00b7d513fabdda29fa000000.pdf. Accessed March 2019.
[84] Herber RF, de Gee AJ, Wibowo AA. Exposure of dentists and assistants to mercury: mercury levels in urine and hair related to conditions of practice. *Community Dent Oral Epidemiol.* 1988; 16(3): 153-158. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0528.1988.tb00564.x/abstract;jsessionid=0129EC1737083382DF5BA2DE8995F4FD.f03t04. Accessed March 2019.
[85] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8): 383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.
[86] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry (Tehran, Iran).* 2010;7(2):55. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[87] Krauß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry.* 1997; 63(1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515. Accessed March 2019.

[88] Leistevuo J, Leistevuo T, Helenius H, Pyy L, Osterblad M, Huovinen P, Tenovuo J. Dental amalgam fillings and the amount of organic mercury in human saliva. *Caries Res.* 2001; 35(3):163-6. Abstract available from: http://www.karger.com/Article/Abstract/47450. Accessed March 2019.
[89] Lönnroth EC, Shahnavaz H. Amalgam in dentistry. A survey of methods used at dental clinics in Norrbotten to decrease exposure to mercury vapour. *Swed Dent J.* 1995; 19(1-2): 55. Abstract available from: http://europepmc.org/abstract/med/7597632. Accessed March 2019.
[90] Mahler DB, Adey JD, Fleming MA. Hg emission from dental amalgam as related to the amount of Sn in the Ag-Hg Phase. *J Dent Res*. 1994; 73(10):1663-8. Abstract available from: http://jdr.sagepub.com/content/73/10/1663.short. Accessed March 2019.
[91] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc.* 1995; 126(11): 1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[92] Molin M, Bergman B, Marklund SL, Schutz A, Skerfving S. Mercury, selenium, and glutathione peroxidase before and after amalgam removal in man. *Acta Odontol Scand.* 1990; 48(3): 189-202. Abstract available from: http://www.tandfonline.com/doi/abs/10.3109/00016359009005875?journalCode=iode20. Accessed March 2019.
[93] Mortada WL, Sobh MA, El-Defrawi, MM, Farahat SE. Mercury in dental restoration: is there a risk of nephrotoxity? *J Nephrol*. 2002; 15(2): 171-176. Abstract available from: http://europepmc.org/abstract/med/12018634. Accessed March 2019.
[94] Mutter J. Is dental amalgam safe for humans? The opinion of the scientific committee of the European Commission. *Journal of Occupational Medicine and Toxicology*. 2011; 6:2. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025977/. Accessed March 2019.
[95] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent*. 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.
[96] Nourouzi E, Bahramifar N, Ghasempouri SM. Effect of teeth amalgam on mercury levels in the colostrums human milk in Lenjan. *Environ Monit Assess.* 2012: 184(1): 375-380. Available from: https://www.researchgate.net/profile/Seyed_Mahmoud_Ghasempouri/publication/51052927_Effect_of_teeth_amalgam_on_mercury_levels_in_the_colostrums_human_milk_in_Lenjan/links/00463522eee955d586000000.pdf. Accessed March 2019.
[97] Nylander M, Friberg L, Lind B. Mercury concentrations in the human brain and kidneys in relation to exposure from dental amalgam fillings. *Swed Dent J*. 1987; 11(5): 179-187. Abstract available from: http://europepmc.org/abstract/med/3481133. Accessed March 2019.
[98] Parsell DE, Karns L, Buchanan WT, Johnson RB. Mercury release during autoclave sterilization of amalgam. *J Dent Educ.* 1996; 60(5): 453-458. Abstract available from: http://www.jdentaled.org/content/60/5/453.short. Accessed March 2019.
[99] Redhe O, Pleva J. Recovery of amyotrophic lateral sclerosis and from allergy after removal of dental amalgam fillings. *Int J Risk & Safety in Med*. 1994; 4(3): 229-236. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/235899060_Recovery_from_amyotrophic_lateral_sclerosis_and_from_allergy_after_removal_of_dental_amalgam_fillings/links/0fcfd513f4c3e10807000000.pdf. Accessed March 2019.
[100] Reinhardt JW. Side-effects: Mercury contribution to body burden from dental amalgam. *Adv Dent Res*. 1992; 6(1):110-3. Abstract available from: http://adr.sagepub.com/content/6/1/110.short. Accessed March 2019.
[101] Richardson GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.
[102] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6): 1519-1531. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/10807030390251010. Accessed March 2019.
[103] Snapp KR, Svare CW, Peterson LD. Contribution of dental amalgams to blood mercury levels. *J Dent Res.* 1981; 65(5):311, Abstract #1276, Special issue.
[104] Stock A. [Zeitschrift fuer angewandte Chemie, 29. Jahrgang, 15. April 1926, Nr. 15, S. 461-466, *Die Gefaehrlichkeit des Quecksilberdampfes*, von Alfred Stock (1926).] The Dangerousness of Mercury Vapor. Translated by Birgit Calhoun. Available from: http://www.stanford.edu/~bcalhoun/AStock.htm. Accessed March 2019.
[105] Vahter M, Akesson A, Lind B, Bjors U, Schutz A, Berglund M. Longitudinal study of methylmercury and inorganic mercury in blood and urine of pregnant and lactating women, as well as in umbilical cord blood. *Environ Res*. 2000; 84(2):186-94. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935100940982. Accessed March 2019.
[106] Vimy MJ, Lorscheider FL. Intra-oral air mercury released from dental amalgam. *J Den Res.* 1985; 64(8):1069-71.
[107] Vimy MJ, Lorscheider FL: Serial measurements of intra-oral air mercury; Estimation of daily dose from dental amalgam. *J Dent Res.* 1985; 64(8):1072-5. Abstract available from: http://jdr.sagepub.com/content/64/8/1072.short. Accessed March 2019.
[108] Vimy MJ, Luft AJ, Lorscheider FL. Estimation of mercury body burden from dental amalgam computer simulation of a metabolic compartment model. *J. Dent. Res.* 1986; 65(12):1415-1419. Abstract available from: http://jdr.sagepub.com/content/65/12/1415.short. Accessed March 2019.
[109] Votaw AL, Zey J. Vacuuming a mercury-contaminated dental office may be hazardous to your health. *Dent Assist.* 1991; 60(1): 27. Abstract available from: http://europepmc.org/abstract/med/1860523. Accessed March 2019.

[110] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[111] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.
[112] Weiner JA, Nylander M, Berglund F. Does mercury from amalgam restorations constitute a health hazard? *Sci Total Environ*. 1990; 99(1-2):1-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/004896979090206A. Accessed March 2019.
[113] Zahir F, Rizwi SJ, Haq SK, Khan RH. Low dose mercury toxicity and human health. *Environ Toxicol Pharmacol*. 2005; 20(2): 351-360. Available from: https://www.researchgate.net/profile/Soghra_Haq/publication/51515936_Low_dose_mercury_toxicity_and_human_health/links/00b7d51bd5115b6ba9000000.pdf. Accessed March 2019.
[114] State of Connecticut Department of Environmental Protection. Fillings: The Choices You Have. Hartford, CT; Revised May 2011. Available from: https://www.csda.com/docs/default-source/regulations/amalgam.The. Accessed March 2019.
[115] Maine Bureau of Health. Filling Materials Brochure. 2002. Available from: http://www.vce.org/mercury/Maine_AmalBrochFinal2.pdf. Accessed March 2019.
[116] Advisory Committee on Mercury Pollution. *Dental Amalgam Fillings: Environmental and Health Facts for Dental Patients.* Waterbury, VT. Available from: https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/DentalAmalgamFactSheet.pdf. Accessed March 2019.
[117] Abraham JE, Svare CW, Frank CW. The effect of dental amalgam restorations on blood mercury levels. *J Dent Res*. 1984; 63(1):71-3. Abstract available from: http://jdr.sagepub.com/content/63/1/71.short. Accessed March 2019.
[118] Björkman L, Lind B. Factors influencing mercury evaporation rate from dental amalgam fillings. *Scand J Dent Res.* 1992; 100(6):354–60. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1992.tb01086.x/abstract. Accessed March 2019.
[119] Dunn JE, Trachtenberg FL, Barregard L, Bellinger D, McKinlay S. Scalp hair and urine mercury content of children in the Northeast United States: the New England Children's Amalgam Trial. *Environmental Research*. 2008; 107(1):79-88. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464356/. Accessed March 2019.
[120] Fredin B. Mercury release from dental amalgam fillings. *Int J Risk Saf Med.* 1994; 4(3): 197-208. Abstract available from: http://europepmc.org/abstract/med/23511257. Accessed March 2019.
[121] Gay DD, Cox RD, Reinhardt JW. Chewing releases mercury from fillings. *Lancet.* 1979; 313(8123):985-6.
[122] Isacsson G, Barregård L, Seldén A, Bodin L. Impact of nocturnal bruxism on mercury uptake from dental amalgams. *European Journal of Oral Sciences.* 1997; 105(3):251-7. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1997.tb00208.x/abstract. Accessed March 2019.
[123] Krausß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry.* 1997; 63(1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515#.VnnujPkrIgs. Accessed March 2019.
[124] Sällsten G, Thoren J, Barregård L, Schütz A, Skarping G. Long-term use of nicotine chewing gum and mercury exposure from dental amalgam fillings. *Journal of Dental Research*. 1996; 75(1):594-8. Abstract available from: http://jdr.sagepub.com/content/75/1/594.short. Accessed March 2019.
[125] Svare CW, Peterson LC, Reinhardt JW, Boyer DB, Frank CW, Gay DD, et al. The effect of dental amalgams on mercury levels in expired air. *J Dent Res*. 1981; 60:1668–71. Abstract available from: http://jdr.sagepub.com/content/60/9/1668.short. Accessed March 2019.
[126] Vimy MJ, Lorscheider FL. Clinical Science Intra-oral Air Mercury Released from Dental Amalgam. *Journal of Dental Research.* 1985; 64(8):1069-71. Abstract available from: http://jdr.sagepub.com/content/64/8/1069.short. Accessed March 2019.
[127] Vimy MJ, Lorscheider FL. Serial measurements of intra-oral air mercury: estimation of daily dose from dental amalgam. *Journal of Dental Research*. 1985; 64(8):1072-5. Abstract available from: http://jdr.sagepub.com/content/64/8/1072.short. Accessed March 2019.
[128] Health Canada. *The Safety of Dental Amalgam.* 1996: 4. Available from Health Canada Web site: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.
[129] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[130] Gioda A, Hanke G, Elias-Boneta A, Jiménez-Velez B. A pilot study to determine mercury exposure through vapor and bound to PM10 in a dental school environment. *Toxicology and Industrial Health*. 2007; 23(2):103-13. Available from: https://www.researchgate.net/profile/Braulio_Jimenez-Velez/publication/5647180_A_pilot_study_to_determine_mercury_exposure_through_vapor_and_bound_to_PM10_in_a_dental_school_environment/links/56d9a95308aebabdb40f7bd3/A-pilot-study-to-determine-mercury-exposure-through-vapor-and-bound-to-PM10-in-a-dental-school-environment.pdf. Accessed March 2019.

[131] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. *Environmental Science and Pollution Research*. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.
[132] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8):383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.
[133] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry (Tehran, Iran).* 2010;7(2):55. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[134] Lönnroth EC, Shahnavaz H. Dental clinics--a burden to environment? *Swed Dent J.* 1996; 20(5):173. Abstract available from: http://europepmc.org/abstract/med/9000326. Accessed March 2019.
[135] Manceau, A., Enescu, M., Simionovici, A., Lanson, M., Gonzalez-Rey, M., Rovezzi, M., Tucoulou, R., Glatzel, P., Nagy, K.L. and Bourdineaud, J.P. Chemical forms of mercury in human hair reveal sources of exposure. *Environmental Science & Technology*. 2016; 50(19): 10721-10729. Available from: https://www.researchgate.net/profile/Jean_Paul_Bourdineaud/publication/308418704_Chemical_Forms_of_Mercury_in_Human_Hair_Reveal_Sources_of_Exposure/links/5b8e3d9ba6fdcc1ddd0a85f9/Chemical-Forms-of-Mercury-in-Human-Hair-Reveal-Sources-of-Exposure.pdf. Accessed March 2019.
[136] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[137] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent.* 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.
[138] Oliveira MT, Constantino HV, Molina GO, Milioli E, Ghizoni JS, Pereira JR. Evaluation of mercury contamination in patients and water during amalgam removal. *The Journal of Contemporary Dental Practice*. 2014; 15(2):165. Abstract available from: https://europepmc.org/abstract/med/25095837. Accessed March 2019.
[139] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6): 1519-1531. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/10807030390251010. Accessed March 2019.
[140] Sandborgh-Englund G, Elinder CG, Langworth S, Schutz A, Ekstrand J. Mercury in biological fluids after amalgam removal. *J Dent Res*. 1998; 77(4):615-24. Abstract available from: https://www.researchgate.net/profile/Gunilla_Sandborgh-Englund/publication/51331635_Mercury_in_biological_fluids_after_amalgam_removal/links/0fcfd50d1ea80e1d3a000000.pdf. Accessed March 2019.
[141] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[142] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.
[143] Akerstrom M, Barregard L, Lundh T, Sallsten G. Relationship between mercury in kidney, blood, and urine in environmentally exposed individuals, and implications for biomonitoring. *Toxicology and Applied Pharmacology*. 2017; 320:17-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0041008X17300637. Accessed March 2019.
[144] Baek HJ, Kim EK, Lee SG, Jeong SH, Sakong J, Merchant AT, Im SU, Song KB, Choi YH. Dental amalgam exposure can elevate urinary mercury concentrations in children. *International Dental Journal*. 2016; 66(3):136-43. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/idj.12214. Accessed March 2019.
[145] Dutton DJ, Fyie K, Faris P, Brunel L, Emery JH. The association between amalgam dental surfaces and urinary mercury levels in a sample of Albertans, a prevalence study. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):22. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-22. Accessed March 2019.
[146] Kingman A, Albertinin T, Brown LJ. Mercury concentrations in urine and whole blood associated with amalgam exposure in a US military population. *J Dent Res.* 1998; 77(3): 461–71. Available from: https://www.researchgate.net/profile/Albert_Kingman/publication/13734674_Mercury_concentrations_in_urine_and_whole_blood_associated_with_amalgam_exposure_in_a_US_military_population/links/00b7d528f53d63553e000000.pdf. Accessed March 2019.
[147] Pesch A, Wilhelm M, Rostek U, Schmitz N, Weishoff-Houben M, Ranft U, et al. Mercury concentrations in urine, scalp hair, and saliva in children from Germany. *J Expo Anal Environ Epidemiol*. 2002; 12(4):252–8. Abstract available from: http://europepmc.org/abstract/med/12087431. Accessed March 2019.
[148] Woods JS, Martin MD, Leroux BG, DeRouen TA, Leitao JG, Bernardo MF, et al. The contribution of dental amalgam to urinary mercury excretion in children. *Environ Health Perspect*. 2007; 115(10):1527–31. Abstract available from: http://www.jstor.org/stable/4626949. Accessed March 2019.

[149] Abraham JE, Svare CW, Frank CW. The effect of dental amalgam restorations on blood mercury levels. *J Dent Res*. 1984; 63(1):71-3. Abstract available from: http://jdr.sagepub.com/content/63/1/71.short. Accessed March 2019.
[150] Björkman L, Lind B. Factors influencing mercury evaporation rate from dental amalgam fillings. *Scand J Dent Res.* 1992; 100(6):354–60. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1992.tb01086.x/abstract. Accessed March 2019.
[151] Dunn JE, Trachtenberg FL, Barregard L, Bellinger D, McKinlay S. Scalp hair and urine mercury content of children in the Northeast United States: the New England Children's Amalgam Trial. *Environmental Research*. 2008; 107(1):79-88. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464356/. Accessed March 2019.
[152] Fredin B. Mercury release from dental amalgam fillings. *Int J Risk Saf Med.* 1994; 4(3): 197-208. Abstract available from: http://europepmc.org/abstract/med/23511257. Accessed March 2019.
[153] Gay DD, Cox RD, Reinhardt JW. Chewing releases mercury from fillings. *Lancet.* 1979; 313(8123):985-6.
[154] Isacsson G, Barregård L, Seldén A, Bodin L. Impact of nocturnal bruxism on mercury uptake from dental amalgams. *European Journal of Oral Sciences.* 1997; 105(3):251-7. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1997.tb00208.x/abstract. Accessed March 2019.
[155] Krausß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry*. 1997; 63(1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515#.VnnujPkrIgs. Accessed March 2019.
[156] Sällsten G, Thoren J, Barregård L, Schütz A, Skarping G. Long-term use of nicotine chewing gum and mercury exposure from dental amalgam fillings. *Journal of Dental Research*. 1996; 75(1):594-8. Abstract available from: http://jdr.sagepub.com/content/75/1/594.short. Accessed March 2019.
[157] Svare CW, Peterson LC, Reinhardt JW, Boyer DB, Frank CW, Gay DD, et al. The effect of dental amalgams on mercury levels in expired air. *J Dent Res*. 1981; 60:1668–71. Abstract available from: http://jdr.sagepub.com/content/60/9/1668.short. Accessed March 2019.
[158] Vimy MJ, Lorscheider FL. Clinical Science Intra-oral Air Mercury Released from Dental Amalgam. *Journal of Dental Research.* 1985; 64(8):1069-71. Abstract available from: http://jdr.sagepub.com/content/64/8/1069.short. Accessed March 2019.
[159] Vimy MJ, Lorscheider FL. Serial measurements of intra-oral air mercury: estimation of daily dose from dental amalgam. *Journal of Dental Research*. 1985; 64(8):1072-5. Abstract available from: http://jdr.sagepub.com/content/64/8/1072.short. Accessed March 2019.
[160] Jokstad A, Thomassen Y, Bye E, Clench-Aas J, Aaseth J. Dental amalgam and mercury. *Pharmacol Toxicol*. 1992; 70(4):308–13. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0773.1992.tb00478.x/abstract. Accessed March 2019.
[161] Patterson JE, Weissberg BG, Dennison PJ. Mercury in human breath from dental amalgams. *B Environ Contam Toxicol*. 1985; 34(1):459–68. Abstract available from: https://link.springer.com/article/10.1007%2FBF01609761?LI=true. Accessed March 2019.
[162] Skare I, Engqvist A. Human exposure to mercury and silver released from dental amalgam restorations. *Arch Environ Health.* 1994; 49(5):384–94. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1994.9954991. Accessed March 2019.
[163] Vimy MJ, Lorscheider FL. Intra-oral air mercury released from dental amalgam. *J Den Res.* 1985; 64(8):1069-71. Abstract available from: http://www.sciencedirect.com/science/article/pii/026766059090025Q. Accessed March 2019.
[164] Björkman L, Lind B. Factors influencing mercury evaporation rate from dental amalgam fillings. *Scand J Dent Res.* 1992; 100(6):354–60. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1992.tb01086.x/abstract. Accessed March 2019.
[165] Edlund C, Bjorkman L, Ekstrand J, Englund GS, Nord CE. Resistance of the normal human microflora to mercury and antimicrobials after exposure to mercury from dental amalgam fillings. *Clinical Infectious Diseases*. 1996; 22(6):944-50. Available from: https://academic.oup.com/cid/article-pdf/22/6/944/1264474/22-6-944.pdf. Accessed March 2019.
[166] Fakour H, Esmaili-Sari A, Zayeri F. Scalp hair and saliva as biomarkers in determination of mercury levels in Iranian women: amalgam as a determinant of exposure. *J Hazard Mater*. 2010; 177(1–3):109–13. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0304389409019736. Accessed March 2019.
[167] Krausß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry*. 1997; 63(1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515#.VnnujPkrIgs. Accessed March 2019.
[168] Pizzichini M, Fonzi M, Gasparoni A, Fonzi L. Salivary mercury levels in healthy donors with and without amalgam fillings. *Bull Group Int Rech Sci Stomatol Odontol.* 2000; 42(2–3):88–93. Abstract available from: http://revistes.ub.edu/index.php/bullgirso/article/view/5899. Accessed March 2019.
[169] Prochazkova J, Podzimek S, Tomka M, Kucerova H, Mihaljevic M, Hana K, Miksovský M, Sterzl I, Vinsova J. Metal alloys in the oral cavity as a cause of oral discomfort in sensitive patients. *Neuroendocrinology Letters*. 2006; 27:53-8. Available from: http://www.nel.edu/userfiles/articlesnew/NEL270706A03.pdf. Accessed March 2019.
[170] Abraham JE, Svare CW, Frank CW. The effect of dental amalgam restorations on blood mercury levels. *J Dent Res*. 1984; 63(1):71-3. Abstract available from: http://jdr.sagepub.com/content/63/1/71.short. Accessed March 2019.

[171] Akerstrom M, Barregard L, Lundh T, Sallsten G. Relationship between mercury in kidney, blood, and urine in environmentally exposed individuals, and implications for biomonitoring. *Toxicology and Applied Pharmacology*. 2017; 320:17-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0041008X17300637. Accessed March 2019.
[172] Akesson I, Schutz A, Attewell R, Skerfving S, Glantz PO. Status of mercury and selenium in dental personnel: impact of amalgam work and own fillings. *Arch Environ Health*. 1991; 46(2):102–9. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1991.9937436#.Vnn5avkrIgs. Accessed March 2019.
[173] Golding J, Steer CD, Gregory S, Lowery T, Hibbeln JR, Taylor CM. Dental associations with blood mercury in pregnant women. *Community Dentistry and Oral Epidemiology*. 2016 ; 44(3):216-22. Available from: https://onlinelibrary.wiley.com/doi/pdf/10.1111/cdoe.12208. Accessed March 2019.
[174] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. *Environmental Science and Pollution Research*. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.
[175] Jokstad A, Thomassen Y, Bye E, Clench-Aas J, Aaseth J. Dental amalgam and mercury. *Pharmacol Toxicol*. 1992; 70(4):308–13. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0773.1992.tb00478.x/abstract. Accessed March 2019.
[176] Lindberg A, Ask-Bjornberg K, Vahter M, Berglund M. Exposure to methylmercury in non-fish-eating people in Sweden. *Environ Res.* 2004; 96(1):28–33. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935103001907. Accessed March 2019.
[177] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters*. 2002; 23(5-6):459. Available from: http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[178] Molin M, Bergman B, Marklund SL, Schutz A, Skerfving S. Mercury, selenium, and glutathione peroxidase before and after amalgam removal in man. *Acta Odontol Scand*. 1990; 48(3): 189-202. Abstract available from: http://www.tandfonline.com/doi/abs/10.3109/00016359009005875?journalCode=iode20#.Vnn6lvkrIgs. Accessed March 2019.
[179] Oskarsson A, Schutz A, Schkerving S, Hallen IP, Ohlin B, Lagerkvist BJ. Total and inorganic mercury in breast milk in relation to fish consumption and amalgam in lactating women. *Arch Environ Health*. 1996; 51(3):234-51. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1996.9936021#.Vnn6O_krIgs. Accessed March 2019.
[180] Snapp KR, Boyer DB, Peterson LC, Svare CW. The contribution of dental amalgam to mercury in blood. *J Dent Res.* 1989; 68(5):780–5. Abstract available from: http://jdr.sagepub.com/content/68/5/780.short. Accessed March 2019.
[181] Vahter M, Akesson A, Lind B, Bjors U, Schutz A, Berglund M. Longitudinal study of methylmercury and inorganic mercury in blood and urine of pregnant and lactating women, as well as in umbilical cord blood. *Environ Res*. 2000; 84(12):186-94. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935100940982. Accessed March 2019.
[182] Yin L, Yu K, Lin S, Song X, Yu X. Associations of blood mercury, inorganic mercury, methyl mercury and bisphenol A with dental surface restorations in the US population, NHANES 2003–2004 and 2010–2012. Ecotoxicology and Environmental Safety. 2016; 134:213-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0147651316303475. Accessed March 2019.
[183] Akerstrom M, Barregard L, Lundh T, Sallsten G. Relationship between mercury in kidney, blood, and urine in environmentally exposed individuals, and implications for biomonitoring. *Toxicology and Applied Pharmacology*. 2017; 320:17-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0041008X17300637. Accessed March 2019.
[184] Barregard L, Fabricius-Lagging E, Lundh T, Mölne J, Wallin M, Olausson M, et al. Cadmium, mercury, and lead in kidney cortex of living kidney donors: Impact of different exposure sources. *Environ Res.* 2010; 110(1):47–54. Available from: https://www.researchgate.net/profile/Johan_Moelne/publication/40024474_Cadmium_mercury_and_lead_in_kidney_cortex_of_living_kidney_donors_Impact_of_different_exposure_sources/links/0c9605294e28e1f04d000000.pdf. Accessed March 2019.
[185] Björkman L, Lundekvam BF, Lægreid T, Bertelsen BI, Morild I, Lilleng P, et al. Mercury in human brain, blood, muscle and toenails in relation to exposure: an autopsy study. *Environ Health*. 2007; 6(30):13. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2098763/. Accessed March 2019.
[186] Guzzi G, Grandi M, Cattaneo C, Calza S, Minoia C, Ronchi A, Gatti A, Severi G. Dental amalgam and mercury levels in autopsy tissues: food for thought. *Am J Forensic Med Pathol*. 2006; 27(1):42-5. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/16501347. Accessed March 2019.
[187] Nylander M, Friberg L, Eggleston D, Bjorkman L. Mercury accumulation in tissues from dental staff and controls in relation to exposure. *Swed Dent J*. 1989; 13(6): 235-236. Abstract available from: http://europepmc.org/abstract/med/2603127. Accessed March 2019.
[188] Björkman L, Sandborgh-Englund G, Ekstrand J. Mercury in saliva and feces after removal of amalgam fillings. *Toxicol Appl Pharmacol*. 1997; 144(1):156–62. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0041008X9798128X. Accessed March 2019.
[189] Edlund C, Bjorkman L, Ekstrand J, Englund GS, Nord CE. Resistance of the normal human microflora to mercury and antimicrobials after exposure to mercury from dental amalgam fillings. *Clinical Infectious Diseases*. 1996; 22(6):944-50. Available from: https://academic.oup.com/cid/article-pdf/22/6/944/1264474/22-6-944.pdf. Accessed March 2019.

[190] Skare I, Engqvist A. Human exposure to mercury and silver released from dental amalgam restorations. *Arch Environ Health.* 1994; 49(5):384–94. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1994.9954991#.Vnn85PkrIgs. Accessed March 2019.
[191] Ask K, Akesson A, Berglund M, Vahter M. Inorganic mercury and methylmercury in placentas of Swedish women. *Environ Health Perspect.* 2002; 110(5):523-6. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240842/pdf/ehp0110-000523.pdf. Accessed March 2019.
[192] Bedir Findik R, Celik HT, Ersoy AO, Tasci Y, Moraloglu O, Karakaya J. Mercury concentration in maternal serum, cord blood, and placenta in patients with amalgam dental fillings: effects on fetal biometric measurements. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2016 ; 29(22):3665-9. Available from: https://www.researchgate.net/profile/Hueseyin_Celik/publication/295686928_Mercury_concentration_in_maternal_serum_cord_blood_and_placenta_in_patients_with_amalgam_dental_fillings_effects_on_fetal_biometric_measurements/links/5ac8859d4585151e80a57417/Mercury-concentration-in-maternal-serum-cord-blood-and-placenta-in-patients-with-amalgam-dental-fillings-effects-on-fetal-biometric-measurements.pdf. Accessed March 2019.
[193] Björnberg KA, Vahter M, Petersson-Grawe K, Glynn A, Cnattingius S, Darnerud PO, Atuma S, Aune M, Becker W, Berglund M. Methyl mercury and inorganic mercury in Swedish pregnant women and in cord blood: influence of fish consumption. *Environmental Health Perspectives*. 2003; 111(4):637–41. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241457/pdf/ehp0111-000637.pdf&sa=X&scisig=AAGBfm29zmnT2SVYZIpIJY1-xFZOaZbpMQ&oi=scholarr&ei=zFOKT7TVKJDa0QXU3cm3CQ&sqi=2&ved=0CCcQgAMoADAA. Accessed March 2019.
[194] Drasch G, Schupp I, Hofl H, Reinke R, Roider G. Mercury burden of human fetal and infant tissues. *Eur J Pediatr*. 1994; 153(8):607–10. Abstract available from: http://link.springer.com/article/10.1007/BF02190671. Accessed December 16, 2019.
[195] Lindow SW, Knight R, Batty J, Haswell SJ. Maternal and neonatal hair mercury concentrations: the effect of dental amalgam. *Journal of Obstetrics and Gynecology*. 2003; 23(S1):S48-S49. Available from: https://www.researchgate.net/profile/Robert_Knight4/publication/10864434_Maternal_and_neonatal_hair_mercury_concentrations_the_effect_of_dental_amalgam/links/543fc3110cf21227a11b7820.pdf. Accessed March 2019.
[196] Lutz E, Lind B, Herin P, Krakau I, Bui TH, Vahter M. Concentrations of mercury, cadmium and lead in brain and kidney of second trimester fetuses and infants. *J Trace Elem Med Biol.* 1996; 10(2):61–7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0946672X96800137. Accessed March 2019.
[197] Palkovicova L, Ursinyova M, Masanova V, Yu Z, Hertz-Picciotto I. Maternal amalgam dental fillings as the source of mercury exposure in developing fetus and newborn. *J Expo Sci Environ Epidemiol*. 2008; 18(3):326-331. Available from: http://www.nature.com/jes/journal/v18/n3/full/7500606a.html. Accessed March 2019.
[198] Razagui IB, Haswell SJ. Mercury and selenium concentrations in maternal and neonatal scalp hair. *Biological Trace Element Research*. 2001; 81(1):1-9. Abstract available from: https://link.springer.com/article/10.1385/BTER:81:1:01. Accessed March 2019.
[199] Vahter M, Akesson A, Lind B, Bjors U, Schutz A, Berglund M. Longitudinal study of methylmercury and inorganic mercury in blood and urine of pregnant and lactating women, as well as in umbilical cord blood. *Environ Res*. 2000; 84(2):186-94. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935100940982. Accessed March 2019.
[200] da Costa SL, Malm O, Dorea JG. Breast-mild mercury concentrations and amalgam surface in mothers from Brasilia, Brasil. *Biol Trace Elem Res.* 2005; 106(2): 145–51. Abstract available from: http://link.springer.com/article/10.1385/BTER:106:2:145. Accessed March 2019.
[201] Oskarsson A, Schutz A, Schkerving S, Hallen IP, Ohlin B, Lagerkvist BJ. Total and inorganic mercury in breast milk in relation to fish consumption and amalgam in lactating women. *Arch Environ Health*. 1996; 51(3):234-51. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1996.9936021. Accessed March 2019.
[202] Nourouzi E, Bahramifar N, Ghasempouri SM. Effect of teeth amalgam on mercury levels in the colostrums human milk in Lenjan. *Environ Monit Access.* 2012; 184(1); 375-380. Available from: https://www.researchgate.net/profile/Seyed_Mahmoud_Ghasempouri/publication/51052927_Effect_of_teeth_amalgam_on_mercury_levels_in_the_colostrums_human_milk_in_Lenjan/links/00463522eee955d586000000.pdf. Accessed March 2019.
[203] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Science of the Total Environment.* 2011; 409(20): 4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.
[204] World Health Organization. Mercury in Health Care [policy paper]. August 2005: 1. Available from WHO Web site: http://www.who.int/water_sanitation_health/medicalwaste/mercurypolpaper.pdf. Accessed March 2019.
[205] Health Canada. *The Safety of Dental Amalgam.* 1996: 8, 13. Available from Health Canada Web site: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.
[206] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière, J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Science of the Total Environment.* 2011; 409(20): 4257-4268. Available from: https://www.researchgate.net/publication/51514541_Mercury_exposure_and_risks_from_dental_amalgam_in_the_US_population_post-2000/download. Accessed March 2019.
[207] Al-Saleh I, Al-Sedairi A. Mercury (Hg) burden in children: The impact of dental amalgam. *Sci Total Environ*. 2011; 409(16):3003-3015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711004359. Accessed March 2019.

[208] Ask K, Akesson A, Berglund M, Vahter M. Inorganic mercury and methylmercury in placentas of Swedish women. *Environ Health Perspect.* 2002; 110(5):523-6. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240842/pdf/ehp0110-000523.pdf. Accessed March 2019.
[209] Baek HJ, Kim EK, Lee SG, Jeong SH, Sakong J, Merchant AT, Im SU, Song KB, Choi YH. Dental amalgam exposure can elevate urinary mercury concentrations in children. *International Dental Journal*. 2016; 66(3):136-43. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/idj.12214. Accessed March 2019.
[210] Bedir Findik R, Celik HT, Ersoy AO, Tasci Y, Moraloglu O, Karakaya J. Mercury concentration in maternal serum, cord blood, and placenta in patients with amalgam dental fillings: effects on fetal biometric measurements. *The Journal of Maternal-Fetal & Neonatal Medicine.* 2016 ; 29(22):3665-9. Available from: https://www.researchgate.net/profile/Hueseyin_Celik/publication/295686928_Mercury_concentration_in_maternal_serum_cord_blood_and_placenta_in_patients_with_amalgam_dental_fillings_effects_on_fetal_biometric_measurements/links/5ac8859d4585151e80a57417/Mercury-concentration-in-maternal-serum-cord-blood-and-placenta-in-patients-with-amalgam-dental-fillings-effects-on-fetal-biometric-measurements.pdf. Accessed March 2019.
[211] Berlin M. Mercury in dental amalgam: a risk analysis. *SMDJ Seychelles Medical and Dental Journal, Special Issue*. 2004; 7(1): 154-158.
[212] Björkman L, Lygre GB, Haug K, Skjærven R. Perinatal death and exposure to dental amalgam fillings during pregnancy in the population-based MoBa cohort. *PloS One*. 2018 ; 13(12):e0208803. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0208803. Accessed March 2019.
[213] Björnberg KA, Vahter M, Petersson-Grawe K, Glynn A, Cnattingius S, Darnerud PO, Atuma S, Aune M, Becker W, Berglund M. Methyl mercury and inorganic mercury in Swedish pregnant women and in cord blood: influence of fish consumption. *Environmental Health Perspectives*. 2003; 111(4):637–41. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241457/pdf/ehp0111-000637.pdf&sa=X&scisig=AAGBfm29zmnT2SVYZIpIJY1-xFZOaZbpMQ&oi=scholarr&ei=zFOKT7TVKJDa0QXU3cm3CQ&sqi=2&ved=0CCcQgAMoADAA. Accessed March 2019.
[214] da Costa SL, Malm O, Dorea JG. Breast-milk mercury concentrations and amalgam surface in mothers from Brasilia, Brasil. *Biol Trace Elem Res.* 2005; 106(2): 145–51. Abstract available from: http://link.springer.com/article/10.1385/BTER:106:2:145. Accessed March 2019.
[215] Drasch G, Schupp I, Hofl H, Reinke R, Roider G. Mercury burden of human fetal and infant tissues. *Eur J Pediatr*. 1994; 153(8):607–10. Abstract available from: http://link.springer.com/article/10.1007/BF02190671. Accessed March 2019.
[216] Drexler H, Schaller KH. The mercury concentration in breast milk resulting from amalgam fillings and dietary habits. *Environmental Research*. 1998; 77(2):124-9. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935197938135. Accessed March 2019.
[217] Dunn JE, Trachtenberg FL, Barregard L, Bellinger D, McKinlay S. Scalp hair and urine mercury content of children in the northeast United States: the New England children's amalgam trial. *Environ Res*. 2008; 107(1):79–88. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464356/. Accessed March 2019.
[218] Geier DA, Carmody T, Kern JK, King PG, Geier MR. A dose-dependent relationship between mercury exposure from dental amalgams and urinary mercury levels: a further assessment of the Casa Pia Children's Dental Amalgam Trial. Human & Experimental Toxicology. 2012; 31(1):11-7. Abstract available from: http://het.sagepub.com/content/31/1/11.short. Accessed March 2019.
[219] Geier DA, Carmody T, Kern JK, King PG, Geier MR. A significant dose-dependent relationship between mercury exposure from dental amalgams and kidney integrity biomarkers A further assessment of the Casa Pia children's dental amalgam trial. *Human & Experimental Toxicology*. 2012; 32(4):434-440. Abstract available from: http://het.sagepub.com/content/early/2012/08/09/0960327112455671.abstract. Accessed March 2019.
[220] Geier DA, Carmody T, Kern JK, King PG, Geier MR. A significant relationship between mercury exposure from dental amalgams and urinary porphyrins: a further assessment of the Casa Pia children's dental amalgam trial. *Biometals.* 2011; 24, (2):215-224. Abstract available from: http://link.springer.com/article/10.1007/s10534-010-9387-0. Accessed March 2019.
[221] Geier DA, Kern JK, Geier MR. A prospective study of prenatal mercury exposure from dental amalgams and autism severity. *Neurobiolgiae Experimentals Polish Neuroscience Society.* 2009; 69(2): 189-197. Available from: http://www.ane.pl/linkout.php?pii=6921. Accessed March 2019.
[222] Gordon H. Pregnancy in Female Dentists: A Mercury Hazard. In *Proceedings of International Conference on Mercury Hazards in Dental Practice*. Glasgow, Scotland. 1981. pp. 2-4.
[223] Guzzi G, Pigatto PD. Urinary mercury levels in children with amalgam fillings. *Environ Health Perspect*. 2008; 116(7):A286-7. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453182/. Accessed March 2019.
[224] Haley B. Response to the NIDCR funded Children's Amalgam Testing publications in the JAMA 2006. Available from the IAOMT Web site: https://iaomt.org/wp-content/uploads/CAT_Haley_scientific_critique.pdf. Accessed March 2019.
[225] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.
[226] Holmes, AS, Blaxill, MF, Haley, BE. Reduced levels of mercury in first baby haircuts of autistic children. *Int J Toxicol.* 2003. 22 (4): 277-85. Abstract available from: http://ijt.sagepub.com/content/22/4/277.short. Accessed March 2019.

[227] Homme KG, Kern JK, Haley BE, Geier DA, King PG, Sykes LK, Geier MR. New science challenges old notion that mercury dental amalgam is safe. *BioMetals*. 2014; 27(1); 19-24. Abstract available at http://www.ncbi.nlm.nih.gov/pubmed/24420334. Accessed March 2019.
[228] Khaled EM, Meguid NA, Bjørklund G, Gouda A, Bahary MH, Hashish A, Sallam NM, Chirumbolo S, El-Bana MA. Altered urinary porphyrins and mercury exposure as biomarkers for autism severity in Egyptian children with autism spectrum disorder. *Metabolic Brain Disease*. 2016; 31(6):1419-26. Available from: https://www.researchgate.net/profile/Nagwa_Meguid/publication/312976048_Altered_urinary_porphyrins_and_mercury_exposure_as_biomarkers_for_autism_severity_in_Egyptian_children_with_autism_spectrum_disorder/links/5a2a3b97a6fdccfbbf81bcaa/Altered-urinary-porphyrins-and-mercury-exposure-as-biomarkers-for-autism-severity-in-Egyptian-children-with-autism-spectrum-disorder.pdf. Accessed March 2019.
[229] Lindow SW, Knight R, Batty J, Haswell SJ. Maternal and neonatal hair mercury concentrations: the effect of dental amalgam. *Journal of Obstetrics and Gynecology*. 2003; 23(S1):S48-S49. Available from: https://www.researchgate.net/profile/Robert_Knight4/publication/10864434_Maternal_and_neonatal_hair_mercury_concentrations_the_effect_of_dental_amalgam/links/543fc3110cf21227a11b7820.pdf. Accessed March 2019.
[230] Luglie PF, Campus G, Chessa G, Spano G, Capobianco G, Fadda GM, Dessole S. Effect of amalgam fillings on the mercury concentration in human amniotic fluid. *Archives of Gynecology and Obstetrics.* 2005; 271(2):138-42. Available from: https://www.researchgate.net/profile/Giampiero_Capobianco/publication/8948150_Effect_of_amalgam_fillings_on_the_mercury_concentration_in_human_amniotic_fluid/links/02bfe50e407dfd5bfe000000.pdf. Accessed March 2019.
[231] Lutz E, Lind B, Herin P, Krakau I, Bui TH, Vahter M. Concentrations of mercury, cadmium and lead in brain and kidney of second trimester fetuses and infants. *J Trace Elem Med Biol.* 1996; 10(2):61–7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0946672X96800137. Accessed March 2019.
[232] Nourouzi E, Bahramifar N, Ghasempouri SM. Effect of teeth amalgam on mercury levels in the colostrums human milk in Lenjan. *Environ Monit Access.* 2012; 184(1): 375-380. Available from: https://www.researchgate.net/profile/Seyed_Mahmoud_Ghasempouri/publication/51052927_Effect_of_teeth_amalgam_on_mercury_levels_in_the_colostrums_human_milk_in_Lenjan/links/00463522eee955d586000000.pdf. Accessed March 2019.
[233] Oskarsson A, Schutz A, Schkerving S, Hallen IP, Ohlin B, Lagerkvist BJ. Total and inorganic mercury in breast milk in relation to fish consumption and amalgam in lactating women. *Arch Environ Health.* 1996; 51(3):234-51. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1996.9936021. Accessed March 2019.
[234] Palkovicova L, Ursinyova M, Masanova V, Yu Z, Hertz-Picciotto I. Maternal amalgam dental fillings as the source of mercury exposure in developing fetus and newborn. *J Expo Sci Environ Epidemiol*. 2008; 18(3):326-331. Available from: http://www.nature.com/jes/journal/v18/n3/full/7500606a.html. Accessed March 2019.
[235] Panova Z, Dimitrov G. Ovarian Function in women having professional contact with metallic mercury. *Akusherstvoi Ginekologiya*. 1974; 13(1):29-34.
[236] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Science of the Total Environment.* 2011; 409(20): 4257-4268. Available from: https://www.researchgate.net/profile/Colleen_Purtill2/publication/51514541_Mercury_exposure_and_risks_from_dental_amalgam_in_the_US_population_post-2000/links/5ae0ed0d458515c60f65f2bd/Mercury-exposure-and-risks-from-dental-amalgam-in-the-US-population-post-2000.pdf. Accessed March 2019.
[237] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[238] Svare CW, Peterson LC, Reinhardt JW, Frank CW, Boyer DB. Dental amalgam: A potential source of mercury vapor exposure. *Journal of Dental Research*. 1980; 59(special issue A): 34l. Abstract #293.
[239] Ursinyova M, Masanova V, Palkovicova L, Wsolova L. The influence of mother's dental amalgam fillings on prenatal and postnatal exposure of children to mercury. *Epidemiology*. 2006 Nov; 17(6):S494-5. Abstract available from: https://journals.lww.com/epidem/Fulltext/2006/11001/The_Influence_of_Mother_s_Dental_Amalgam_Fillings.1328.aspx. Accessed March 2019.
[240] Vahter M, Akesson A, Lind B, Bjors U, Schutz A, Berglund M. Longitudinal study of methylmercury and inorganic mercury in blood and urine of pregnant and lactating women, as well as in umbilical cord blood. *Environ Res*. 2000; 84(2):186-94. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935100940982. Accessed March 2019.
[241] Vimy MJ, Hooper DE, King WW, Lorscheider FL. Mercury from maternal "silver" tooth fillings in sheep and human breast milk. *Biological Trace Element Research*. 1997; 56(2): 143-152. Abstract available from: https://link.springer.com/article/10.1007/BF02785388. Accessed March 2019.
[242] Vimy MJ, Takahashi Y, Lorscheider FL. Maternal-fetal distribution of mercury (203 Hg) released from dental amalgam fillings. *American Physiology Society.* 1990; 258(4): R939-945. Abstract available from: https://www.physiology.org/doi/abs/10.1152/ajpregu.1990.258.4.R939. Accessed March 2019.
[243] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol*. 2012; 34(5):513-21. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[244] Woods JS, Heyer NJ, Russo JE, Martin MD, Pillai PB, Bammler TK, Farin FM. Genetic polymorphisms of catechol-O-methyltransferase modify the neurobehavioral effects of mercury in children. *Journal of Toxicology and Environmental Health*.

2014; Part A, 77(6): 293-312. Available from: http://www.tandfonline.com/doi/full/10.1080/15287394.2014.867210. Accessed March 2019.
[245] Woods JS, Heyer NJ, Russo JE, Martin MD, Pillai PB, Farin FM. Modification of neurobehavioral effects of mercury by genetic polymorphisms of metallothionein in children. *Neurotoxicology and Teratology*. 2013; 39:36-44. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3795926/. Accessed March 2019.
[246] Woods JS, Martin MD, Leroux BG, DeRouen TA, Leitão JG, Bernardo MF, Luis HS, Simmonds PL, Kushleika JV, Huang Y. The contribution of dental amalgam to urinary mercury excretion in children. *Environmental Health Perspectives*. 2007; 115(10); 1527. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2022658/. Accessed March 2019.
[247] Adachia A, Horikawab T, Takashimac T, Ichihashib M. Mercury-induced nummular dermatitis. *Journal of the American Academy of Dermatology*. 2000; 43(2):383-5. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962200452746. Accessed March 2019.
[248] Anglen J, Gruninger SE, Chou HN, Weuve J, Turyk ME, Freels S, Stayner LT. Occupational mercury exposure in association with prevalence of multiple sclerosis and tremor among US dentists. *Journal of the American Dental Association*. 2015; 146(9):659-68. Abstract available from: https://www.sciencedirect.com/science/article/abs/pii/S0002817715006303. Accessed March 2019.
[249] Athavale PN, Shum KW, Yeoman CM, Gawkrodger DJ. Oral lichenoid lesions and contact allergy to dental mercury and gold. *Contact Dermatitis.* 2003; 49(5): 264-265. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.0105-1873.2003.0225g.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed December 22, 2015.
[250] Barregard L, Fabricius-Lagging E, Lundh T, Molne J, Wallin M, Olausson M, Modigh C, Sallsten G. Cadmium, mercury, and lead in kidney cortex of living kidney donors: impact of different exposure sources. *Environ, Res.* Sweden, 2010; 110: 47-54. Available from: https://www.researchgate.net/profile/Johan_Moelne/publication/40024474_Cadmium_mercury_and_lead_in_kidney_cortex_of_living_kidney_donors_Impact_of_different_exposure_sources/links/0c9605294e28e1f04d000000.pdf. Accessed March 2019.
[251] Bartova J, Prochazkova J, Kratka Z, Benetkova K, Venclikova C, Sterzl I. Dental amalgam as one of the risk factors in autoimmune disease. *Neuro Endocrinol Lett.* 2003; 24(1-2): 65-67. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/12743535. Accessed December 16, 2015.
[252] Bergdahl IA, Ahlqwist M, Barregard L, Björkelund C, Blomstrand A, Skerfving S, Sundh V, Wennberg M, Lissner L. Mercury in serum predicts low risk of death and myocardial infarction in Gothenburg women. *Int Arch Occup Environ Health.* 2013; 86(1): 71-77. Abstract available from: http://link.springer.com/article/10.1007/s00420-012-0746-8. Accessed March 2019.
[253] Bjørklund G, Dadar M, Aaseth J. Delayed-type hypersensitivity to metals in connective tissue diseases and fibromyalgia. *Environmental Research*. 2018;161:573-9. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0013935117317280. Accessed March 2019.
[254] Bjørklund G, Hilt B, Dadar M, Lindh U, Aaseth J. Neurotoxic effects of mercury exposure in dental personnel. *Basic & Clinical Pharmacology & Toxicology*. 2018: 1-7. Abstract available from: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13199. Accessed March 2019.
[255] Bjørklund G, Stejskal V, Urbina MA, Dadar M, Chirumbolo S, Mutter J. Metals and Parkinson's disease: mechanisms and biochemical processes. *Current Medicinal Chemistry*. 2018; 25:1-7. Available from: https://www.detoxklinik.de/files/9215/2005/4819/2018_Parkinson_and_metals_reprint.pdf. Accessed March 2019.
[256] Bjørklund G, Tinkov AA, Dadar M, Rahman MM, Chirumbolo S, Skalny AV, Skalnaya MG, Haley BE, Ajsuvakova OP, Aaseth J. Insights into the potential role of mercury in Alzheimer's disease. *Journal of Molecular Neuroscience.* 2019:1-23. Abstract available from: https://link.springer.com/article/10.1007/s12031-019-01274-3. Accessed March 2019.
[257] Björkman L, Lygre GB, Haug K, Skjærven R. Perinatal death and exposure to dental amalgam fillings during pregnancy in the population-based MoBa cohort. *PloS One*. 2018 ; 13(12):e0208803. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0208803. Accessed March 2019.
[258] Björkman L, Sjursen TT, Dalen K, Lygre GB, Berge TL, Svahn J, Lundekvam BF. Long term changes in health complaints after removal of amalgam restorations. *Acta Odontologica Scandinavica*. 2017; 75(3):208-19. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/00016357.2016.1278262. Accessed March 2019.
[259] Boyd ND, Benediktsson H, Vimy MJ, Hooper DE, Lorscheider FL. Mercury from dental "silver" tooth fillings impairs sheep kidney function. *Am J Physiol*. 1991; 261(4 Pt 2):R1010-4. Abstract available from: http://ajpregu.physiology.org/content/261/4/R1010.short. Accessed March 2019.
[260] Camisa C, Taylor JS, Bernat JR, Helm TN. Contact hypersensitivity to mercury in amalgam restorations may mimic oral lichen planus**.** *Cutis*. 1999; 63(3):189-92. Abstract available from: http://europepmc.org/abstract/med/10190076. Accessed March 2019.
[261] Cariccio VL, Samà A, Bramanti P, Mazzon E. Mercury involvement in neuronal damage and in neurodegenerative diseases. *Biological Trace Element Research*. 2018; 18:1-6. Abstract available from: https://link.springer.com/article/10.1007/s12011-018-1380-4. Accessed March 2019.
[262] Cooper GS, Parks CG, Treadwell EL, St Clair EW, Gilkeson GS, Dooley MA. Occupational risk factors for the development of systemic lupus erythematosus. *J Rheumatol.* 2004; 31(10): 1928-1933. Abstract available from: http://www.jrheum.org/content/31/10/1928.short. Accessed March 2019.

[263] Dunsche A, Kastel I, Terheyden H, Springer ING, Christopher E, Brasch J. Oral lichenoid reactions associated with amalgam: improvement after amalgam removal. *British Journal of Dermatology*. 2003; 148(1):70-76. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2133.2003.04936.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[264] Eggleston DW. Effect of dental amalgam and nickel alloys on T-lymphocytes: preliminary report. *J Prosthet Dent*. 1984; 51(5):617-23. Abstract available from: http://www.sciencedirect.com/science/article/pii/0022391384904049. Accessed March 2019.
[265] El-Badry A, Rezk M, El-Sayed H. Mercury-induced oxidative stress may adversely affect pregnancy outcome among dental staff: a cohort study. *The International Journal of Occupational and Environmental Medicine*. 2018; 9(3 July):1181-3. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/1181/985. Accessed March 2019.
[266] Ely JTA, Fudenberg HH, Muirhead RJ, LaMarche MG, Krone CA, Buscher D, Stern EA. Urine mercury in micormercurialism: bimodal distribution and diagnostic implications. *Bulletin of Environmental Contamination and Toxicology*. 1999; 63(5): 553-559. Abstract available from: https://link.springer.com/article/10.1007%2Fs001289901016?LI=true. Accessed March 2019.
[267] Feuerman EJ. Recurrent contact dermatitis caused by mercury in amalgam dental fillings. *International Journal of Dermatology*. 1975; 14(9):657-60. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-4362.1975.tb00158.x. Accessed March 2019.
[268] Finne K, Goransson K, Winckler L. Oral lichen planus and contact allergy to mercury. *Int J Oral Surg*. 1982; 11(4):236-9. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978582800732. Accessed March 2019.
[269] Fredin B. The distribution of mercury in various tissues of guinea-pigs after application of dental amalgam fillings (a pilot study). *Sci Total Environ.* 1987; 66: 263-268. Abstract available from: http://www.sciencedirect.com/science/article/pii/0048969787900933. Accessed March 2019.
[270] Geier DA, Kern JK, Geier MR. A prospective study of prenatal mercury exposure from dental amalgams and autism severity. *Neurobiolgiae Experimentals Polish Neuroscience Society.* 2009; 69(2): 189-197. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/19593333. Accessed March 2019.
[271] Geier DA, Kern JK, Geier MR. The biological basis of autism spectrum disorders: Understanding causation and treatment by clinical geneticists. *Acta Neurobiol Exp (Wars).* 2010; 70(2): 209-226. Available from: https://www.ane.pl/pdf/7025.pdf. Accessed March 2019.
[272] Godfrey ME, Wojcik DP, Krone CA. Apolipoprotein E genotyping as a potential biomarker for mercury toxicity. *Journal of Alzheimer's Disease.* 2003; 5(3): 189-195. Abstract available at http://www.ncbi.nlm.nih.gov/pubmed/12897404. Accessed March 2019.
[273] Goldschmidt PR, Cogan RB, Taubman SB. Effects of amalgam corrosion products on human cells. *J Period Res*. 1976; 11(2):108-15. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0765.1976.tb00058.x/abstract. Accessed March 2019.
[274] Gönen ZB, Asan CY, Etöz O, Alkan A. Oral leukoplakia associated with amalgam restorations. *Journal of Oral Science.* 2016;58(3):445-8. Available from: https://www.jstage.jst.go.jp/article/josnusd/58/3/58_16-0071/_pdf. Accessed March 2019.
[275] Guttman-Yassky E, Weltfriend S, Bergman R. Resolution of orofacial granulomatosis with amalgam removal. *Journal of the European Academy of Dermatology and Venereology*. 2003; 17(3):344-7. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1468-3083.2003.00793.x. Accessed March 2019.
[276] Hanson M, Pleva J. The dental amalgam issue: a review. *Experientia.* 1991; 47(1): 9-22. Available from: http://www.researchgate.net/profile/Jaro_Pleva/publication/21157262_The_dental_amalgam_issue._A_review/links/00b7d513fabdda29fa000000.pdf. Accessed March 2019.
[277] Hanson M. Health and amalgam removal: a meta-analysis of 25 studies. *Tf-bladet Bull of the Swedish Association of Dental Mercury Patients.* Tf-bladet no. 2 2004 and SOU 2003:53 appendix 10, Sw. Dept. of Health: 204-216.
[278] Henriksson E, Mattsson U, Håkansson J. Healing of lichenoid reactions following removal of amalgam. A clinical follow-up. *J Clin Periodontol*. 1995; 22(4):287-94. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-051X.1995.tb00150.x/full. Accessed March 2019.
[279] Hougeir FG, Yiannias JA, Hinni ML, Hentz JG, el-Azhary RA. Oral metal contact allergy: a pilot study on the cause of oral squamous cell carcinoma. *Int J Dermatol.* 2006; 45(3): 265-271. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-4632.2004.02417.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[280] Houston MC. Role of mercury toxicity in hypertension, cardiovascular disease, and stroke. *The Journal of Clinical Hypertension.* 2011; 13(8):621-7. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-7176.2011.00489.x/full. Accessed March 2019.
[281] Huggins HA, Levy TE. Cerebrospinal fluid protein changes in multiple sclerosis after dental amalgam removal. *Altern Med Rev.* 1998; 3(4): 295-300. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/9727079. Accessed March 2019.
[282] Hsu YC, Chang CW, Lee HL, Chuang CC, Chiu HC, Li WY, Horng JT, Fu E. Association between history of dental amalgam fillings and risk of Parkinson's Disease: a population-based retrospective cohort study in Taiwan. *PloS One.* 2016; 11(12):e0166552. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166552. Accessed March 2019.

[283] Hultman P, Johansson U, Turley SJ, Lindh U, Enestrom S, Pollard KM. Adverse immunological effects and autoimmunity induced by dental amalgam and alloy in mice. *FASEB J*. 1994; 8(14):1183-90. Available from: http://www.fasebj.org/content/8/14/1183.full.pdf. Accessed March 2019.
[284] Hybenova M, Hrda P, Prochazkova J, Stejskal V, Sterzl I. The role of environmental factors in autoimmune thyroiditis. *Neuroendocrinology Letters.* 2010; 31:283-9. Available from: http://www.melisa.org/wp-content/uploads/2016/09/the-role-of-environmental-facotirs-and-autoimmune-throiditis-2.pdf. Accessed March 2019.
[285] Ibbotson SH, Speight EL, Macleod RI, Smart ER, Lawrence CM. The relevance and effect of amalgam replacement in subjects with oral lichenoid reactions. *British Journal of Dermatology*. 1996; 134(3):420-423. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2133.1996.25760.x/abstract. Accessed March 2019.
[286] Karatasli B, Karatasli G, Mete O, Erdem MA, Cankaya AB. Healing of oral lichenoid lesions following replacement of dental amalgam restorations with feldspathic ceramic inlay-onlay restorations: clinical results of a follow-up period varied from three months up to five years. *BioMed Research International*. 2018;2018. Available from: http://downloads.hindawi.com/journals/bmri/2018/7918781.pdf. Accessed March 2019.
[287] Kern JK, Geier DA, Bjørklund G, King PG, Homme KG, Haley BE, Sykes LK, Geier MR. Evidence supporting a link between dental amalgams and chronic illness, fatigue, depression, anxiety, and suicide. *Neuro Endocrinol Lett.* 2014; 35(7): 537-52. Available from: https://www.researchgate.net/profile/David_Geier/publication/271536688_Evidence_supporting_a_link_between_dental_amalgams_and_chronic_illness_fatigue_depression_anxiety_and_suicide/links/54d3b2a40cf246475802a640.pdf. Accessed March 2019.
[288] Khaled EM, Meguid NA, Bjørklund G, Gouda A, Bahary MH, Hashish A, Sallam NM, Chirumbolo S, El-Bana MA. Altered urinary porphyrins and mercury exposure as biomarkers for autism severity in Egyptian children with autism spectrum disorder. *Metabolic Brain Disease*. 2016; 31(6):1419-26. Available from: https://www.researchgate.net/profile/Nagwa_Meguid/publication/312976048_Altered_urinary_porphyrins_and_mercury_exposure_as_biomarkers_for_autism_severity_in_Egyptian_children_with_autism_spectrum_disorder/links/5a2a3b97a6fdccfbbf81bcaa/Altered-urinary-porphyrins-and-mercury-exposure-as-biomarkers-for-autism-severity-in-Egyptian-children-with-autism-spectrum-disorder.pdf. Accessed March 2019.
[289] Kidd RF. Results of dental amalgam removal and mercury detoxification using DMPS and neural therapy. *Altern Ther Health Med*. 2000; 6(4):49-55. Abstract available from: http://search.proquest.com/openview/44f1d1168ca21d0abb726b36fcdf9ed0/1?pq-origsite=gscholar. Accessed March 2019.
[290] Koch P, Bahmer FA. Oral lesions and symptoms related to metals used in dental restorations: a clinical, allergological, and histologic study. *Journal of the American Academy of Dermatology*. 1999; 41(3):422-30. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962299701167. Accessed March 2019.
[291] Kristoffersen AE, Alræk T, Stub T, Hamre HJ, Björkman L, Musial F. Health complaints attributed to dental amalgam: a retrospective survey exploring perceived health changes related to amalgam removal. *The Open Dentistry Journal*. 2016;10:739. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5299553/. Accessed March 2019.
[292] Laeijendecker R, Dekker SK, Burger PM, Mulder PG, Van Joost T, Neumann MH. Oral lichen planus and allergy to dental amalgam restorations. *Archives of Dermatology*. 2004; 140(12):1434-8. Available from: https://jamanetwork.com/journals/jamadermatology/fullarticle/480908. Accessed March 2019.
[293] Laine J, Kalimo K, Forssell H, Happonen R. Resolution of oral lichenoid lesions after replacement of amalgam restorations in patients allergic to mercury compounds. *JAMA.* 1992; 267(21):2880. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2133.1992.tb08395.x/abstract. Accessed March 2019.
[294] Laine J, Konttinen YT, Beliaev N, Happonen RP. Immunocompetent cells in amalgam-associated oral lichenoid contact lesions. *Journal of Oral Pathology & Medicine*. 1999; 28(3):117-21. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0714.1999.tb02008.x. Accessed March 2019.
[295] Lind PO, Hurlen B, Lyberg T, Aas E. Amalgam-related oral lichenoid reaction. *Scand J Dent Res*. 1986; 94(5):448-51. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1986.tb01786.x/abstract. Accessed March 2019.
[296] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters.* 2002; 23(5-6):459. Available from: http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[297] Lindqvist B, Mörnstad H. Effects of removing amalgam fillings from patients with diseases affecting the immune system. *Medical Science Research*. 1996; 24(5):355-356.
[298] Lundstrom, IM. Allergy and corrosion of dental materials in patients with oral lichen planus. *Int J Oral Surg*. 1984; 13(1):16. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978584800514. Accessed March 2019.
[299] Lynch M, Ryan A, Galvin S, Flint S, Healy CM, O'Rourke N, Lynch K, Rogers S, Collins P. Patch testing in oral lichenoid lesions of uncertain etiology. *Dermatitis*. 2015; 26(2):89-93. Available from: https://journals.lww.com/dermatitis/Fulltext/2015/03000/Patch_Testing_in_Oral_Lichenoid_Lesions_of.5.aspx?WT.mc_id=HPxADx20100319xMP&utm_source=TrendMD&utm_medium=cpc&utm_campaign=Dermatitis_TrendMD_0. Accessed March 2019.
[300] Mortada WL, Sobh MA, El-Defrawi, MM, Farahat SE. Mercury in dental restoration: is there a risk of nephrotoxity? *J Nephrol*. 2002; 15(2): 171-176. Abstract available from: http://europepmc.org/abstract/med/12018634. Accessed March 2019.

[301] Mutter J, Naumann J, Sadaghiani C, Schneider R, Walach H. Alzheimer disease: mercury as pathogenetic factor and apolipoprotein E as a moderator. *Neuro Endocrinol Lett.* 2004; 25(5): 331-339. Abstract available at http://www.ncbi.nlm.nih.gov/pubmed/15580166. Accessed March 2019.
[302] Mutter J, Naumann J, Schneider R, Walach H, Haley B. Mercury and autism: accelerating evidence. *Neuro Endocrinol Lett.* 2005: 26(5): 439-446. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/16264412. Accessed March 2019.
[303] Mutter J. Is dental amalgam safe for humans? The opinion of the scientific committee of the European Commission. *Journal of Occupational Medicine and Toxicology*. 2011; 6:5. Available from: http://www.biomedcentral.com/content/pdf/1745-6673-6-2.pdf. Accessed March 2019.
[304] Ngim C, Devathasan G. Epidemiologic study on the association between body burden mercury level and idiopathic Parkinson's disease. *Neuroepidemiology*. 1989: 8(3):128-141. Abstract available from: http://www.karger.com/Article/Abstract/110175. Accessed March 2019.
[305] Nylander M., Friberg L, Lind B. Mercury concentrations in the human brain and kidneys in relation to exposure from dental amalgam fillings. *Swed Dent J*. 1987; 11(5): 179-187. Abstract available from: http://europepmc.org/abstract/med/3481133. Accessed March 2019.
[306] Pawar RR, Mattigatti SS, Mahaparale RR, Kamble AP. Lichenoid reaction associated with silver amalgam restoration in a Bombay blood group patient: a case report. *Journal of Conservative Dentistry: JCD*. 2016; 19(3):289. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872588/. Accessed March 2019.
[307] Pleva J. Mercury from dental amalgams: exposure and effects. *Int J Risk Saf Med.* 1992; 3(1): 1-22. Abstract available from: http://europepmc.org/abstract/med/23510804. Accessed March 2019.
[308] Podzimek S, Prochazkova J, Buitasova L, Bartova J, Ulcova-Gallova Z, Mrklas L, Stejskal VD. Sensitization to inorganic mercury could be a risk factor for infertility. *Neuro Endocrinol Lett.* 2005; 26(4), 277-282. Available from: http://www.melisa.org/pdf/Mercury-infertility.pdf. Accessed March 2019.
[309] Prochazkova J, Podzimek S, Tomka M, Kucerova H, Mihaljevic M, Hana K, Miksovský M, Sterzl I, Vinsova J. Metal alloys in the oral cavity as a cause of oral discomfort in sensitive patients. *Neuroendocrinology Letters*. 2006; 27:53-8. Available from: http://www.nel.edu/userfiles/articlesnew/NEL270706A03.pdf. Accessed March 2019.
[310] Prochazkova J, Sterzl I, Kucerkova H, Bartova J, Stejskal VDM. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters.* 2004; 25: 3. Available from: http://www.nel.edu/pdf_/25_3/NEL250304A07_Prochazkova_.pdf. Accessed March 2019.
[311] Rachmawati D, Buskermolen JK, Scheper RJ, Gibbs S, von Blomberg BM, van Hoogstraten IM. Dental metal-induced innate reactivity in keratinocytes. *Toxicology in Vitro*. 2015; 30(1):325-30. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0887233315002544. Accessed March 2019.
[312] Redhe O, Pleva J. Recovery of amyotrophic lateral sclerosis and from allergy after removal of dental amalgam fillings. *Int J Risk & Safety in Med*. 1994; 4(3): 229-236. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/235899060_Recovery_from_amyotrophic_lateral_sclerosis_and_from_allergy_after_removal_of_dental_amalgam_fillings/links/0fcfd513f4c3e10807000000.pdf. Accessed March 2019.
[313] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Sci Total Environ.* 2011; 409(20):4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.
[314] Rothwell JA, Boyd PJ. Amalgam fillings and hearing loss. *International Journal of Audiology*. 2008; 47(12): 770-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/14992020802311224#.VnH7tkorIgs. Accessed March 2019.
[315] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[316] Seidler A, Hellenbrand W, Robra BP, Vieregge P, Nischan P, Joerg J, Oertel WH, Ulm G, Schneider E. Possible environmental, occupational, and other etiologic factors for Parkinson's disease: a case-control study in Germany. *Neurology*. 1996; 46(5):1275-1284. Abstract available from: https://n.neurology.org/content/46/5/1275.short. Accessed March 2019.
[317] Sharma R, Handa S, De D, Radotra BD, Rattan V. Role of dental restoration materials in oral mucosal lichenoid lesions. *Indian Journal of Dermatology, Venereology, and Leprology*. 2015 ; 81(5):478. Available from: http://www.ijdvl.com/article.asp?issn=0378-6323;year=2015;volume=81;issue=5;spage=478;epage=484;aulast=Sharma. Accessed March 2019.
[318] Siblerud RL, Kienholz E. Evidence that mercury from silver dental fillings may be an etiological factor in multiple sclerosis. *The Science of the Total Environment*. 1994; 142(3): 191-205. Abstract available from: http://www.sciencedirect.com/science/article/pii/0048969794903271. Accessed March 2019.
[319] Siblerud RL, Motl J, Kienholz E. Psychometric evidence that dental amalgam mercury may be an etiological factor in manic depression. *Journal of Orthomolecular Medicine*. 1998; 13(1):31-9. Available from: http://www.orthomolecular.org/library/jom/1998/pdf/1998-v13n01-p031.pdf. Accessed March 2019.
[320] Siblerud RL, Motl J, Kienholz E. Psychometric evidence that mercury from silver dental fillings may be an etiological factor in depression, excessive anger, and anxiety. *Psychol Rep.* 1994; 74(1): 67-80. Abstract available from: https://journals.sagepub.com/doi/abs/10.2466/pr0.1994.74.1.67. Accessed March 2019.

[321] Siblerud RL. A comparison of mental health of multiple sclerosis patients with silver/mercury dental fillings and those with fillings removed. *Psychol Rep*. 1992; 70(3c):1139-51. Abstract available from: https://journals.sagepub.com/doi/abs/10.2466/pr0.1992.70.3c.1139. Accessed March 2019.
[322] Siblerud RL. The relationship between mercury from dental amalgam and the cardiovascular system. *Science of the Total Environment.* 1990; 99(1-2): 23-35. Available from: http://www.sciencedirect.com/science/article/pii/004896979090207B. Accessed March 2019.
[323] Sjursen TT, Lygre GM, Dalen K, Helland V, Laegreid T, Svahn J, Lundekvam BF, Bjorkman L. Changes in health complaints after removal of amalgam fillings. *Journal of Oral Rehabilitation.* 2011; 38(11): 835-848. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2842.2011.02223.x/full. Accessed March 2019.
[324] Skoglund A. Value of epicutaneous patch testing in patients with oral, mucosal lesions of lichenoid character. *European Journal of Oral Sciences*. 1994;102(4):216-22. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1994.tb01183.x. Accessed March 2019.
[325] Skoglund A, Egelrud T. Hypersensitivity reactions to dental materials in patients with lichenoid oral mucosal lesions and in patients with burning mouth syndrome. *European Journal of Oral Sciences*. 1991; 99(4):320-8. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1991.tb01035.x. Accessed March 2019.
[326] Smart ER, Macleod RI, Lawrence CM. Resolution of lichen planus following removal of amalgam restorations in patients with proven allergy to mercury salts: a pilot study. *British Dental Journal*. 1995; 178(3):108. Abstract available from: https://www.nature.com/articles/4808663. Accessed March 2019.
[327] Spencer AJ. Dental amalgam and mercury in dentistry. *Aust Dent J*. 2000; 45(4):224-34. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1834-7819.2000.tb00256.x/pdf. Accessed March 2019.
[328] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014; 16(12):753-8. Available from: http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[329] Stejskal V, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinol Lett.* 1999; 20(5): 289-298. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/11460087. Accessed March 2019.
[330] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuro Endocrinol Lett.* 1999; 20:221-228. Available from: http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[331] Sterzl I, Prochazkova J, Hrda P, Matucha P, Bartova J, Stejskal V. Removal of dental amalgam decreases anti-TPO and anti-Tg autoantibodies in patients with autoimmune thyroiditis. *Neuroendocrinology Letters*. 2006; 27:25-30. Available from: http://www.melisa.org/pdf/Sterzl_Am_2006.pdf. Accessed March 2019.
[332] Summers AO, Wireman J, Vimy MJ, Lorscheider FL, Marshall B, Levy SB, Bennet S, Billard L. Mercury released from dental 'silver' fillings provokes an increase in mercury- and antibiotic- resistant bacteria in oral and intestinal flora of primates. *Antimicrob Agents and Chemother*. 1993; 37(4): 825-834. Available from http://aac.asm.org/content/37/4/825.full.pdf. Accessed March 2019.
[333] Sun YH, Nfor ON, Huang JY, Liaw YP. Association between dental amalgam fillings and Alzheimer's disease: a population-based cross-sectional study in Taiwan. *Alzheimer's Research & Therapy*. 2015; 7(1):1-6. Available from: http://link.springer.com/article/10.1186/s13195-015-0150-1/fulltext.html. Accessed March 2019.
[334] Tomka M, Machovkova A, Pelclova D, Petanova J, Arenbergerova M, Prochazkova J. Orofacial granulomatosis associated with hypersensitivity to dental amalgam. *Science Direct.* 2011; 112(3):335-341. Available from: https://www.researchgate.net/profile/Milan_Tomka/publication/51230248_Orofacial_granulomatosis_associated_with_hypersensitivity_to_dental_amalgam/links/02e7e5269407a8c6d6000000.pdf. Accessed March 2019.
[335] Traub EF, Holmes RH. Dermatitis and stomatitis from the mercury of amalgam fillings. *Arch Derm Syph*. 1938; 38(2):349-57. Available from: http://archderm.jamanetwork.com/article.aspx?articleid=519000. Accessed March 2019.
[336] Venclikova Z, Benada O, Bartova J, Joska L, Mrklas L, Prochazkova J, Stejskal V, Podzimek S. In vivo effects of dental casting alloys. *Neuro Endocrinol Lett*. 2006; 27:61. Abstract available from: http://europepmc.org/abstract/med/16892010. Accessed March 2019.
[337] Weber ME, Yiannias JA, Hougeir FG, Kyle A, Noble BN, Landry AM, Hinni ML. Intraoral metal contact allergy as a possible risk factor for oral squamous cell carcinoma. *Ann Otol Rhinol Laryngol*. 2012; 121(6):389-94. Abstract available from: http://aor.sagepub.com/content/121/6/389.short. Accessed March 2019.
[338] Weiner JA, Nylander M, Berglund F. Does mercury from amalgam restorations constitute a health hazard? *Sci Total Environ.* 1990; 99(1):1-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/004896979090206A. Accessed March 2019.
[339] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett.* 2006; 27(4): 415-423. Abstract available from: http://europepmc.org/abstract/med/16891999. Accessed March 2019.
[340] Wong L, Freeman S. Oral lichenoid lesions (OLL) and mercury in amalgam fillings. *Contact Dermatitis.* 2003; 48(2): 74-79. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1034/j.1600-0536.2003.480204.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.

[341] Zamm A. Dental mercury: a factor that aggravates and induces xenobiotic intolerance. *Journal of Orthomolecular Medicine.* 1991; (6)2. Available from: http://www.orthomolecular.org/library/jom/1991/pdf/1991-v06n02-p067.pdf. Accessed March 2019.
[342] Zamm AV. Candida albicans therapy. Is there ever an end to it? Dental mercury removal: an effective adjunct. *J. Orthomol. Med.* 1986; 1(4): 261-266. Available from: http://www.orthomolecular.org/library/jom/1986/pdf/1986-v01n04-p261.pdf. Accessed March 2019.
[343] Ziff MF. Documented side effects of dental amalgam. *ADR.* September 1992; 6(1):131-134. Available from: https://journals.sagepub.com/doi/abs/10.1177/08959374920060010601. Accessed March 2019.
[344] Merfield DP, Taylor A, Gemmell DM, Parrish JA. Mercury intoxication in a dental surgery following unreported spillage. *British Dental Journal*. 1976; 141(6):179.
[345] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. *Epigenetics, the Environment, and Children's Health across Lifespans.* David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[346] Buchwald H. Exposure of dental workers to mercury. *American Industrial Hygiene Association Journal*. 1972; 33(7): 492-502. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/0002889728506692#.Vnolb_krIgs. Accessed March 2019.
[347] Aaseth J, Hilt B, Bjørklund G. Mercury exposure and health impacts in dental personnel. *Environmental Research*. 2018; 164:65-9. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0013935118300847. Accessed March 2019.
[348] Ahlbom A, Norell S, Rodvall Y, Nylander M. Dentists, dental nurses, and brain tumors. *Br. Med. J.* 1986; 292(6521):662. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1339649/pdf/bmjcred00224-0024.pdf. Accessed March 2019.
[349] Akesson I, Schutz A, Attewell R, Skerfving S, Glantz PO. Status of mercury and selenium in dental personnel: impact of amalgam work and own fillings. *Archives of Environmental Health: An International Journal*. 1991; 46(2):102-9. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1991.9937436. Accessed March 2019.
[350] Anglen J, Gruninger SE, Chou HN, Weuve J, Turyk ME, Freels S, Stayner LT. Occupational mercury exposure in association with prevalence of multiple sclerosis and tremor among US dentists. *The Journal of the American Dental Association.* 2015; 146(9):659-68. Abstract available from: http://jada.ada.org/article/S0002-8177(15)00630-3/abstract. Accessed March 2019.
[351] Bjørklund G, Hilt B, Dadar M, Lindh U, Aaseth J. Neurotoxic effects of mercury exposure in dental personnel. *Basic & Clinical Pharmacology & Toxicology*. 2018: 1-7. Abstract available from: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13199. Accessed March 2019.
[352] Buchwald H. Exposure of dental workers to mercury. *Am Ind Hyg Assoc J.* 1972; 33(7):492-502. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/0002889728506692. Accessed March 2019.
[353] Cooper GS, Parks CG, Treadwell EL, St Clair EW, Gilkeson GS, Dooley MA. Occupational risk factors for the development of systemic lupus erythematosus. *J Rheumatol.* 2004; 31(10):1928-1933. Available from: http://www.jrheum.org/content/31/10/1928.short. Accessed March 2019.
[354] Duplinsky TG, Cicchetti DV. The health status of dentists exposed to mercury from silver amalgam tooth restorations. *International Journal of Statistics in Medical Research*. 2012; 1(1):1-15. Available from: http://www.lifescienceglobal.com/pms/index.php/ijsmr/article/download/433/pdf. Accessed March 2019.
[355] Echeverria D, Aposhian HV, Woods JS, Heyer NJ, Aposhian MM, Bittner AC, Mahurin RK, Cianciola M. Neurobehavioral effects from exposure to dental amalgam Hgo: new distinctions between recent exposure and body burden. *FASEBJ.* 1998; 12(11):971-980. Available from: http://www.fasebj.org/content/12/11/971.long. Accessed March 2019.
[356] Echeverria D, Heyer N, Martin MD, Naleway CA, Woods JS, Bittner AC. Behavioral effects of low-level exposure to Hg0 among dentists. *Neurotoxicol Teratol.* 1995; 17(2):161-8. Abstract available from: http://www.sciencedirect.com/science/article/pii/089203629400049J. Accessed March 2019.
[357] Echeverria D, Woods JS, Heyer NJ, Rohlman D, Farin F, Li T, Garabedian CE. The association between a genetic polymorphism of coproporphyrinogen oxidase, dental mercury exposure and neurobehavioral response in humans. *Neurotoxicol Teratol*. 2006; 28(1):39-48. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001492. Accessed March 2019.
[358] Echeverria D, Woods JS, Heyer NJ, Rohlman DS, Farin FM, Bittner AC, Li T, Garabedian C. Chronic low-level mercury exposure, BDNF polymorphism, and associations with cognitive and motor function. *Neurotoxicology and Teratology*. 2005; 27(6):781-796. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001285. Accessed March 2019.
[359] El-Badry A, Rezk M, El-Sayed H. Mercury-induced oxidative stress may adversely affect pregnancy outcome among dental staff: a cohort study. *The International Journal of Occupational and Environmental Medicine*. 2018; 9(3 July):1181-3. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/1181/985. Accessed March 2019.
[360] Fabrizio E, Vanacore N, Valente M, Rubino A, Meco G. High prevalence of extrapyramidal signs and symptoms in a group of Italian dental technicians. *BMC Neurol.* 2007; 7(1):24. Available from: http://www.biomedcentral.com/1471-2377/7/24. Accessed March 2019.
[361] Fell AKM, Eikeland R, Aaseth JO. A woman in her thirties with cough, tremor, agitation and visual disturbances. *Tidsskr Nor Legeforen.* 2016; 136(14-15):1233. Available from: https://www.researchgate.net/profile/Jan_Aaseth2/publication/306529761_En_kvinne_i_30-arene_med_hoste_tremor_uro_og_synsforstyrrelser/links/57c5cf8b08ae424fb2cf8219.pdf. Accessed March 2019.

[362] Goodrich JM, Wang Y, Gillespie B, Werner R, Franzblau A, Basu N. Methylmercury and elemental mercury differentially associate with blood pressure among dental professionals. *Int J Hyg Environ Health.* 2013; 216(2):195-201. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727420/. Accessed March 2019.
[363] Hilt B, Svendsen K, Syversen T, Aas O, Qvenild T, Sletvold H, Melø I. Occurrence of cognitive symptoms in dental assistants with previous occupational exposure to metallic mercury. *Neurotoxicology.* 2009; 30(6):1202-1206. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0161813X09001119. Accessed March 2019.
[364] Jesus LF, Moreira FR. Impact of exposure to low levels of mercury on the health of dental workers. *Acta Scientiarum. Health Sciences*. 2016; 38(2):219. Available from: https://www.redalyc.org/html/3072/307247622014/. Accessed March 2019.
[365] Johnson KF. Mercury hygiene. *Dental Clinics of North America.* 1978; 22(3):477-89. Abstract available from: http://europepmc.org/abstract/med/277421. Accessed March 2019.
[366] Kanerva L, Lahtinen A, Toikkanen J, Forss H, Estlander T, Susitaival P, Jolanki R. Increase in occupational skin diseases of dental personnel. *Contact Dermatitis.* 1999; 40(2):104-108. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0536.1999.tb06000.x/abstract. Accessed March 2019.
[367] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8):383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.
[368] Lee JY, Yoo JM, Cho BK, Kim HO. Contact dermatitis in Korean dental technicians. *Contact Dermatitis.* 2001; 45(1):13-16. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1034/j.1600-0536.2001.045001013.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[369] Lönnroth EC, Shahnavaz H. Amalgam in dentistry. A survey of methods used at dental clinics in Norrbotten to decrease exposure to mercury vapour. *Swed Dent J.* 1995; 19(1-2):55. Abstract available from: http://europepmc.org/abstract/med/7597632. Accessed March 2019.
[370] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[371] Ngim CH, Foo SC, Boey KW, Jeyaratnem J. Chronic neurobehavioural effects of elemental mercury in dentists. *Br J Ind Med.* 1992; 49(11):782-790. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1039326/pdf/brjindmed00023-0040.pdf. Accessed March 2019.
[372] Nylander M, Friberg L, Eggleston D, Björkman L. Mercury accumulation in tissues from dental staff and controls in relation to exposure. *Swed Dent J*. 1989; 13(6):235-236. Abstract available from: http://europepmc.org/abstract/med/2603127. Accessed March 2019.
[373] Oliveira MT, Constantino HV, Molina GO, Milioli E, Ghizoni JS, Pereira JR. Evaluation of mercury contamination in patients and water during amalgam removal. *The Journal of Contemporary Dental Practice*. 2014; 15(2):165. Abstract available from: https://europepmc.org/abstract/med/25095837. Accessed March 2019.
[374] Parsell DE, Karns L, Buchanan WT, Johnson RB. Mercury release during autoclave sterilization of amalgam. *J Dent Educ.* 1996; 60(5):453-458. Abstract available from: http://www.jdentaled.org/content/60/5/453.short. Accessed March 2019.
[375] Pérez-Gómez B, Aragonés N, Gustavsson P, Plato N, López-Abente G, Pollán, M. Cutaneous melanoma in Swedish women: occupational risks by anatomic site. *Am J Ind Med.* 2005; 48(4):270-281. Available from: https://www.researchgate.net/profile/Beatriz_Perez-Gomez/publication/227715301_Cutaneous_melanoma_in_Swedish_women_Occupational_risks_by_anatomic_site/links/0deec519b27246a598000000.pdf. Accessed March 2019.
[376] Richardson GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.
[377] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6):1519-1531. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/10807030390251010. Accessed March 2019.
[378] Rojas M, Seijas D, Agreda O, Rodríguez M. Biological monitoring of mercury exposure in individuals referred to a toxicological center in Venezuela. *Sci Total Environ*. 2006; 354(2):278-285. Available from: https://www.researchgate.net/profile/David_Seijas/publication/7372790_Biological_monitoring_of_mercury_exposure_in_individuals_referred_to_a_toxicological_center_in_Venezuela/links/0c9605253f5d25bbe9000000.pdf. Accessed March 2019.
[379] Shapiro IM, Cornblath DR, Sumner AJ, Sptiz LK, Uzzell B, Ship II, Bloch P. Neurophysiological and neuropsychological function in mercury-exposed dentists. *Lancet.* 1982; 319(8282):1447-1150. Available from: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(82)92226-7/abstract?cc=y=. Accessed March 2019.
[380] Uzzell BP, Oler J. Chronic low-level mercury exposure and neuropsychological functioning. *J Clin Exp Neuropsychol*. 1986; 8(5):581-593. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/01688638608405177. Accessed March 2019.
[381] Votaw AL, Zey J. Vacuuming a mercury-contaminated dental office may be hazardous to your health. *The Dental Assistant*. 1990; 60(1):27-9. Abstract available from: http://europepmc.org/abstract/med/1860523. Accessed March 2019.
[382] Zahir F, Rizwi SJ, Haq SK, Khan RH. Low dose mercury toxicity and human health. *Environ Toxicol Pharmacol.* 2005; 20(2):351-360. Available from:

https://www.researchgate.net/profile/Soghra_Haq/publication/51515936_Low_dose_mercury_toxicity_and_human_health/links/00b7d51bd5115b6ba9000000.pdf. Accessed March 2019.
[383] de Oliveira MT, Pereira JR, Ghizoni JS, Bittencourt ST, Molina GO. Effects from exposure to dental amalgam on systemic mercury levels in patients and dental school students. *Photomed Laser Surg.* 2010; 28(S2):S-111. Available from: https://www.researchgate.net/profile/Jefferson_Pereira/publication/47369541_Effects_from_exposure_to_dental_amalgam_on_systemic_mercury_levels_in_patients_and_dental_school_students/links/02bfe50f9f8bf8946e000000.pdf. Accessed March 2019.
[384] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.
[385] White RR, Brandt RL. Development of mercury hypersensitivity among dental students. *JADA.* 1976; 92(6):1204-7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817776260320. Accessed March 2019.
[386] El-Badry A, Rezk M, El-Sayed H. Mercury-induced oxidative stress may adversely affect pregnancy outcome among dental staff: a cohort study. *The International Journal of Occupational and Environmental Medicine*. 2018; 9(3 July):1181-3. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/1181/985. Accessed March 2019.
[387] Gelbier S, Ingram J. Possible fetotoxic effects of mercury vapor: a case report. *Public Health.* 1989; 103(1):35-40. Available from: http://www.sciencedirect.com/science/article/pii/S0033350689801003. Accessed March 2019.
[388] Lindbohm ML, Ylöstalo P, Sallmén M, Henriks-Eckerman ML, Nurminen T, Forss H, Taskinen H. Occupational exposure in dentistry and miscarriage. Occupational and environmental medicine. 2007; 64(2):127-33. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2078431/. Accessed March 2019.
[389] Moienafshari R, Bar-Oz B, Koren G. Occupational exposure to mercury. What is a safe level?. *Canadian Family Physician*. 1999; 45:43. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2328063/pdf/canfamphys00035-0045.pdf. Accessed March 2019.
[390] Olfert, SM. Reproductive outcomes among dental personnel: a review of selected exposures. Journal (Canadian Dental Association). 2006; 72(9), 821. Available from: http://www.cda-adc.ca/jcda/vol-72/issue-9/821.pdf. Accessed March 2019.
[391] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[392] Sikorski R, Juszkiewicz T, Paszkowski T, Szprengier-Juszkiewicz T. Women in dental surgeries: reproductive hazards in exposure to metallic mercury. *International Archives of Occupational and Environmental Health.* 1987; 59(6):551-557. Abstract available from: http://link.springer.com/article/10.1007/BF00377918. Accessed March 2019.
[393] Wasylko L, Matsui D, Dykxhoorn SM, Rieder MJ, Weinberg S. A review of common dental treatments during pregnancy: implications for patients and dental personnel. *J Can Dent Assoc*. 1998; 64(6):434-9. Abstract available from: http://europepmc.org/abstract/med/9659813. Accessed March 2019.
[394] Aaseth J, Hilt B, Bjørklund G. Mercury exposure and health impacts in dental personnel. *Environmental Research.* 2018; 164:65-9. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0013935118300847. Accessed March 2019.
[395] Bjørklund G, Hilt B, Dadar M, Lindh U, Aaseth J. Neurotoxic effects of mercury exposure in dental personnel. *Basic & Clinical Pharmacology & Toxicology*. 2018: 1-7. Abstract available from: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13199. Accessed March 2019.
[396] Buchwald H. Exposure of dental workers to mercury. *Am Ind Hyg Assoc J.* 1972; 33(7):492-502. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/0002889728506692. Accessed March 2019.
[397] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[398] Gioda A, Hanke G, Elias-Boneta A, Jiménez-Velez B. A pilot study to determine mercury exposure through vapor and bound to PM10 in a dental school environment. *Toxicology and Industrial Health*. 2007; 23(2):103-13. Available from: https://www.researchgate.net/profile/Braulio_Jimenez-Velez/publication/5647180_A_pilot_study_to_determine_mercury_exposure_through_vapor_and_bound_to_PM10_in_a_dental_school_environment/links/56d9a95308aebabdb40f7bd3/A-pilot-study-to-determine-mercury-exposure-through-vapor-and-bound-to-PM10-in-a-dental-school-environment.pdf. Accessed March 2019.
[399] Jamil N, Baqar M, Ilyas S, Qadir A, Arslan M, Salman M, Ahsan N, Zahid H. Use of mercury in dental silver amalgam: an occupational and environmental assessment. *BioMed Research International*. 2016; 2016. Available from: http://downloads.hindawi.com/journals/bmri/2016/6126385.pdf. Accessed March 2019.
[400] Jesus LF, Moreira FR. Impact of exposure to low levels of mercury on the health of dental workers. *Acta Scientiarum. Health Sciences*. 2016; 38(2):219. Available from: https://www.redalyc.org/html/3072/307247622014/. Accessed March 2019.
[401] Johnson KF. Mercury hygiene. *Dental Clinics of North America.* 1978; 22(3):477-89. Abstract available from: http://europepmc.org/abstract/med/277421. Accessed March 2019.
[402] Kanerva L, Lahtinen A, Toikkanen J, Forss H, Estlander T, Susitaival P, Jolanki R. Increase in occupational skin diseases of dental personnel. Contact Dermatitis. 1999; 40(2):104-108. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0536.1999.tb06000.x/abstract. Accessed March 2019.

[403] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry (Tehran, Iran).* 2010;7(2):55. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[404] Khwaja MA, Abbasi MS, Mehmood FA, Jahangir SE. Study of high levels indoor air mercury contamination from mercury amalgam use in dentistry. *Science Technology and Development.* 2014;33(2):94-106. Available from: http://docsdrive.com/pdfs/std/std/2014/94-106.pdf. Accessed March 2019.
[405] Lönnroth EC, Shahnavaz H. Amalgam in dentistry. A survey of methods used at dental clinics in Norrbotten to decrease exposure to mercury vapour. *Swed Dent J.* 1995; 19(1-2):55. Abstract available from: http://europepmc.org/abstract/med/7597632. Accessed March 2019.
[406] Lönnroth EC, Shahnavaz H. Dental clinics--a burden to environment? *Swed Dent J.* 1996; 20(5):173. Abstract available from: http://europepmc.org/abstract/med/9000326. Accessed March 2019.
[407] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[408] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent.* 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.
[409] Parsell DE, Karns L, Buchanan WT, Johnson RB. Mercury release during autoclave sterilization of amalgam. *J Dent Educ.* 1996; 60(5):453-458. Abstract available from: http://www.jdentaled.org/content/60/5/453.short. Accessed March 2019.
[410] Stonehouse CA, Newman AP. Mercury vapour release from a dental aspirator. *Br Dent J.* 2001; 190(10):558-60. Abstract available from: http://www.nature.com/bdj/journal/v190/n10/full/4801034a.html. Accessed March 2019.
[411] Perim SI, Goldberg AF. Mercury in hospital dentistry. *Special Care in Dentistry*. 1984; 4(2):54-5. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1754-4505.1984.tb00146.x/abstract. Accessed March 2019.
[412] Pleva J. Mercury from dental amalgams: exposure and effects. *The International Journal of Risk & Safety in Medicine*. 1992; 3(1):1-22. Abstract available from: http://europepmc.org/abstract/med/23510804. Accessed March 2019.
[413] Votaw AL, Zey J. Vacuuming a mercury-contaminated dental office may be hazardous to your health. *The Dental Assistant*. 1990; 60(1):27-9. Abstract available from: http://europepmc.org/abstract/med/1860523. Accessed March 2019.
[414] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[415] Health Canada. *The Safety of Dental Amalgam.* 1996: 4. Available from Health Canada Web site: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.
[416] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[417] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8):383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.
[418] Lönnroth EC, Shahnavaz H. Dental clinics--a burden to environment? *Swed Dent J.* 1996; 20(5):173. Abstract available from: http://europepmc.org/abstract/med/9000326. Accessed March 2019.
[419] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[420] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent.* 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.
[421] Oliveira MT, Constantino HV, Molina GO, Milioli E, Ghizoni JS, Pereira JR. Evaluation of mercury contamination in patients and water during amalgam removal. *The Journal of Contemporary Dental Practice*. 2014; 15(2):165. Abstract available from: https://europepmc.org/abstract/med/25095837. Accessed March 2019.
[422] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6): 1519-1531. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/10807030390251010#.VnNn0vkrIgs. Accessed March 2019.
[423] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[424] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.

[425] United States Department of Labor Occupational Safety and Health Administration. Safety and health topics: chemical hazards and toxic substances. Available from: https://www.osha.gov/SLTC/hazardoustoxicsubstances/. Accessed March 2019.
[426] United States Environmental Protection Agency. Dental effluent guidelines. Available from: https://www.epa.gov/eg/dental-effluent-guidelines. Last updated December 1, 2017. Accessed March 2019.
[427] IAOMT. Safe Removal of Amalgam Fillings. Available from: https://iaomt.org/safe-removal-amalgam-fillings/. Accessed March 2019.
[428] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. *Epigenetics, the Environment, and Children's Health across Lifespans.* David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[429] Bergdahl IA, Ahlqwist M, Barregard L, Björkelund C, Blomstrand A, Skerfving S, Sundh V, Wennberg M, Lissner L. Mercury in serum predicts low risk of death and myocardial infarction in Gothenburg women. *Int Arch Occup Environ Health.* 2013; 86(1): 71-77. Abstract available from: http://link.springer.com/article/10.1007/s00420-012-0746-8. Accessed March 2019.
[430] Fakour H, Esmaili-Sari A. Occupational and environmental exposure to mercury among Iranian hairdressers. *Journal of Occupational Health.* 2014; 56(1):56-61. Abstract available from: https://www.jstage.jst.go.jp/article/joh/56/1/56_13-0008-OA/_article. Accessed March 2019.
[431] Geer LA, Persad MD, Palmer CD, Steuerwald AJ, Dalloul M, Abulafia O, Parsons PJ. Assessment of prenatal mercury exposure in a predominately Caribbean immigrant community in Brooklyn, NY. *J Environ Monit.* 2012; 14(3):1035-1043. Available from: https://www.researchgate.net/profile/Laura_Geer/publication/221832284_Assessment_of_prenatal_mercury_exposure_in_a_predominately_Caribbean_immigrant_community_in_Brooklyn_NY/links/540c89680cf2df04e754718a.pdf. Accessed March 2019.
[432] Geier DA, Kern JK, Geier MR. A prospective study of prenatal mercury exposure from dental amalgams and autism severity. *Neurobiolgiae Experimentals Polish Neuroscience Society.* 2009; 69(2): 189-197. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/19593333. Accessed March 2019.
[433] Gibicar D, Horvat M, Logar M, Fajon V, Falnoga I, Ferrara R, Lanzillotta E, Ceccarini C, Mazzolai B, Denby B, Pacyna J. Human exposure to mercury in the vicinity of chlor-alkali plant. *Environ Res.* 2009; 109(4): 355-367. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935109000188. Accessed March 2019.
[434] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. Environmental Science and Pollution Research. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.
[435] Krausß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry.* 1997; 63, (1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515#.VnM7_PkrIgs. Accessed March 2019.
[436] Pesch A, Wilhelm M, Rostek U, Schmitz N, Weishoff-Houben M, Ranft U, et al. Mercury concentrations in urine, scalp hair, and saliva in children from Germany. *J Expo Anal Environ Epidemiol*. 2002; 12(4):252–8. Abstract available from: http://europepmc.org/abstract/med/12087431. Accessed March 2019.
[437] Rothwell JA, Boyd PJ. Amalgam fillings and hearing loss. *International Journal of Audiology.* 2008; 47(12): 770-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/14992020802311224. Accessed March 2019.
[438] Akerstrom M, Barregard L, Lundh T, Sallsten G. Relationship between mercury in kidney, blood, and urine in environmentally exposed individuals, and implications for biomonitoring. *Toxicology and Applied Pharmacology*. 2017; 320:17-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0041008X17300637. Accessed March 2019.
[439] Baek HJ, Kim EK, Lee SG, Jeong SH, Sakong J, Merchant AT, Im SU, Song KB, Choi YH. Dental amalgam exposure can elevate urinary mercury concentrations in children. *International Dental Journal*. 2016; 66(3):136-43. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/idj.12214. Accessed March 2019.
[440] Barregard L, Fabricius-Lagging E, Lundh T, Molne J, Wallin M, Olausson M, Modigh C, Sallsten G. Cadmium, mercury, and lead in kidney cortex of living kidney donors: impact of different exposure sources. *Environ Res.* 2010; 110(1): 47-54. Available from: https://www.researchgate.net/profile/Johan_Moelne/publication/40024474_Cadmium_mercury_and_lead_in_kidney_cortex_of_living_kidney_donors_Impact_of_different_exposure_sources/links/0c9605294e28e1f04d000000.pdf. Accessed March 2019.
[441] Dutton DJ, Fyie K, Faris P, Brunel L, Emery JH. The association between amalgam dental surfaces and urinary mercury levels in a sample of Albertans, a prevalence study. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):22. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-22. Accessed March 2019.
[442] Dye BA, Schober SE, Dillon CF, Jones RL, Fryar C, McDowell M, et al. Urinary mercury concentrations associated with dental restorations in adult women aged 16–49 years: United States, 1999–2000. *Occup Environ Med.* 2005; 62(6):368–75. Abstract available from: http://oem.bmj.com/content/62/6/368.short. Accessed March 2019.
[443] Eggleston DW, Nylander M. Correlation of dental amalgam with mercury in brain tissue. *J Prosthet Dent.* 1987; 58(6): 704-707. Abstract available from: http://www.sciencedirect.com/science/article/pii/0022391387904240. Accessed March 2019.
[444] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. Environmental Science and Pollution Research.

2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.
[445] McGrother CW, Dugmore C, Phillips MJ, Raymond NT, Garrick P, Baird WO. Epidemiology: Multiple sclerosis, dental caries and fillings: a case-control study. *Br Dent J*. 1999; 187(5): 261-264. Available from: http://www.nature.com/bdj/journal/v187/n5/full/4800255a.html. Accessed March 2019.
[446] Pesch A, Wilhelm M, Rostek U, Schmitz N, Weishoff-Houben M, Ranft U, et al. Mercury concentrations in urine, scalp hair, and saliva in children from Germany. *J Expo Anal Environ Epidemiol*. 2002; 12(4):252–8. Abstract available from: http://europepmc.org/abstract/med/12087431. Accessed March 2019.
[447] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Sci Total Environ.* 2011; 409(20):4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.
[448] Rothwell JA, Boyd PJ. Amalgam fillings and hearing loss. *International Journal of Audiology*. 2008; 47(12): 770-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/14992020802311224. Accessed March 2019.
[449] Yin L, Yu K, Lin S, Song X, Yu X. Associations of blood mercury, inorganic mercury, methyl mercury and bisphenol A with dental surface restorations in the US population, NHANES 2003–2004 and 2010–2012. *Ecotoxicology and Environmental Safety*. 2016; 134:213-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0147651316303475. Accessed March 2019.
[450] Bahari, M., Oskoee, P.A., Oskoee, S.S., Pouralibaba, F. and Ahari, A.M. Mercury release of amalgams with various silver contents after exposure to bleaching agent. *Journal of Dental Research, Dental Clinics, Dental Prospects.* 2016; 10(2): 118-123. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4946001/. Accessed March 2019.
[451] Bengtsson UG, Hylander LD. Increased mercury emissions from modern dental amalgams. *BioMetals*. 2017; 30(2):277-83. Available from: https://link.springer.com/article/10.1007/s10534-017-0004-3. Accessed March 2019.
[452] Akerstrom M, Barregard L, Lundh T, Sallsten G. Relationship between mercury in kidney, blood, and urine in environmentally exposed individuals, and implications for biomonitoring. *Toxicology and Applied Pharmacology*. 2017; 320:17-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0041008X17300637. Accessed March 2019.
[453] Gundacker C, Komarnicki G, Zödl B, Forster C, Schuster E, Wittmann K. Whole blood mercury and selenium concentrations in a selected Austrian population: Does gender matter? *Sci Total Environ.* 2006; 372(1): 76-86. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969706006255. Accessed March 2019.
[454] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.
[455] Richardson GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.
[456] Sun YH, Nfor ON, Huang JY, Liaw YP. Association between dental amalgam fillings and Alzheimer's disease: a population-based cross-sectional study in Taiwan. *Alzheimer's Research & Therapy*. 2015; 7(1):1-6. Available from: http://link.springer.com/article/10.1186/s13195-015-0150-1/fulltext.html. Accessed March 2019.
[457] Watson GE, Evans K, Thurston SW, van Wijngaarden E, Wallace JM, McSorley EM, Bonham MP, Mulhern MS, McAfee AJ, Davidson PW, Shamlaye CF, Strain JJ, Love T, Zareba G, Myers GJ. Prenatal exposure to dental amalgam in the Seychelles Child Development Nutrition Study: Associations with neurodevelopmental outcomes at 9 and 30 months. *Neurotoxicology.* 2012. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576043/. Accessed March 2019.
[458] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol*. 2012; 34(5):513-21. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[459] Andreoli V, Sprovieri F. Genetic aspects of susceptibility to mercury toxicity: an overview. *International Journal of Environmental Research and Public Health*. 2017; 14(1):93. Available from: https://www.mdpi.com/1660-4601/14/1/93/pdf. Accessed on March 2019.
[460] Cardenas A, Rifas-Shiman SL, Agha G, Hivert MF, Litonjua AA, DeMeo DL, Lin X, Amarasiriwardena CJ, Oken E, Gillman MW, Baccarelli AA. Persistent DNA methylation changes associated with prenatal mercury exposure and cognitive performance during childhood. Scientific Reports. 2017; 7(1):288. Available from: https://www.nature.com/articles/s41598-017-00384-5. Accessed March 2019.
[461] Echeverria D, Woods JS, Heyer NJ, Rohlman DS, Farin FM, Bittner AC, Li T, Garabedian C. Chronic low-level mercury exposure, BDNF polymorphism, and associations with cognitive and motor function. *Neurotoxicology and Teratology*. 2005; 27(6):781-796. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001285. Accessed March 2019.
[462] Godfrey ME, Wojcik DP, Krone CA. Apolipoprotein E genotyping as a potential biomarker for mercury neurotoxicity. *J Alzheimers Dis.* 2003; 5(3):189-195. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/12897404. Accessed March 2019.
[463] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.

[464] Haley BE. The relationship of the toxic effects of mercury to exacerbation of the medical condition classified as Alzheimer's disease. *Medical Veritas.* 2007; 4(2):1510–1524. Abstract available from: http://www.medicalveritas.com/images/00161.pdf. Accessed March 2019.
[465] Heyer NJ, Echeverria D, Bittner AC, Farin FM, Garabedian CC, Woods JS. Chronic low-level mercury exposure, BDNF polymorphism, and associations with self-reported symptoms and mood. Toxicological Sciences. 2004; 81(2):354-63. Available from: http://toxsci.oxfordjournals.org/content/81/2/354.long. Accessed March 2019.
[466] Homme KG, Kern JK, Haley BE, Geier DA, King PG, Sykes LK, Geier MR. New science challenges old notion that mercury dental amalgam is safe. *BioMetals.* 2014; 27(1); 19-24. Abstract available from: http://link.springer.com/article/10.1007/s10534-013-9700-9/fulltext.html. Accessed March 2019.
[467] Mutter J, Naumann J, Sadaghiani C, Schneider R, Walach H. Alzheimer disease: mercury as pathogenetic factor and apolipoprotein E as a moderator. *Neuro Endocrinol Lett.* 2004; 25(5): 331-339. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/15580166. Accessed March 2019.
[468] Mutter J, Naumann J, Schneider R, Walach H, Haley B. Mercury and autism: accelerating evidence. *Neuro Endocrinol Lett.* 2005: 26(5):439-446. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/16264412. Accessed March 2019.
[469] Mutter J, Yeter D. Kawasaki's disease, acrodynia, and mercury. *Curr Med Chem.* 2008; 15(28):3000-10. Abstract available from: http://www.ingentaconnect.com/content/ben/cmc/2008/00000015/00000028/art00007. Accessed March 2019.
[470] Parajuli RP, Goodrich JM, Chou HN, Gruninger SE, Dolinoy DC, Franzblau A, Basu N. Genetic polymorphisms are associated with hair, blood, and urine mercury levels in the American Dental Association (ADA) study participants. *Environmental Research*. 2015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935115301602. Accessed March 2019.
[471] Richardson, GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.
[472] Stejskal J, Stejskal VD. The role of metals in autoimmunity and the link to neuroendocrinology. *Neuro Endocrinol Lett.* 1999; 20(6):351-366. Abstract available from http://www.ncbi.nlm.nih.gov/pubmed/11458198. Accessed March 2019.
[473] Stejskal VDM, Cederbrant K, Lindvall A, Forsbeck M. MELISA—an in vitro tool for the study of metal allergy. *Toxicology in vitro*. 1994; 8(5):991-1000. Available from: http://www.melisa.org/pdf/MELISA-1994.pdf. Accessed March 2019.
[474] Weiner JA, Nylander M, Berglund F. Does mercury from amalgam restorations constitute a health hazard? *Sci Total Environ.* 1990; 99(1):1-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/004896979090206A. Accessed March 2019.
[475] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett*. 2006; 27(4):415-423. Available from: http://europepmc.org/abstract/med/16891999. Accessed March 2019.
[476] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol*. 2012; 34(5):513-21. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[477] Woods JS, Heyer NJ, Russo JE, Martin MD, Pillai PB, Farin FM. Modification of neurobehavioral effects of mercury by genetic polymorphisms of metallothionein in children. *Neurotoxicology and Teratology*. 2013; 39:36-44. Available from: http://europepmc.org/articles/pmc3795926. Accessed March 2019.
[478] Zamm A. Dental mercury: a factor that aggravates and induces xenobiotic intolerance. *Journal of Orthomolecular Medicine*. 1991; (6)2. Available from: http://orthomolecular.org/library/jom/1991/pdf/1991-v06n02-p067.pdf. Accessed March 2019.
[479] Lyttle HA, Bowden GH. The level of mercury in human dental plaque and interaction in vitro between biofilms of streptococcus mutans and dental amalgam. *Journal of Dental Research.* 1993; 72(9): 1320-1324. Abstract available from: http://jdr.sagepub.com/content/72/9/1320.short. Accessed March 2019.
[480] Mortazavi SM, Daiee E, Yazdi A, Khiabani K, Kavousi A, Vazirinejad R, Behnejad B, Ghasemi M, Mood MB. Mercury release from dental amalgam restorations after magnetic resonance imaging and following mobile phone use. *Pak J Biol Sci*. 2008; 11(8):1142-6. Available from: https://scialert.net/fulltextmobile/?doi=pjbs.2008.1142.1146. Accessed March 2019.
[481] Mortazavi SM, Neghab M, Anoosheh SM, Bahaeddini N, Mortazavi G, Neghab P, Rajaeifard A. High-field MRI and mercury release from dental amalgam fillings. *The International Journal of Occupational and Environmental Medicine*. 2014; 5(2 April):316-101. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/316/469. Accessed March 2019.
[482] Shahidi SH, Bronoosh P, Alavi AA, Zamiri B, Sadeghi AR, Bagheri MH, Javadpour S. Effect of magnetic resonance imaging on microleakage of amalgam restorations: an in vitro study. *Dentomaxillofacial Radiology*. 2009; 38(7):470-4. Available from: https://www.birpublications.org/doi/full/10.1259/dmfr/30077669. Accessed March 2019.
[483] Yilmaz S, Adisen MZ. Ex vivo mercury release from dental amalgam after 7.0-T and 1.5-T MRI. *Radiology*. 2018:172597. Abstract available from: https://pubs.rsna.org/doi/abs/10.1148/radiol.2018172597. Accessed March 2019.
[484] Yilmaz S, Misirlioğlu M. The effect of 3 T MRI on microleakage of amalgam restorations. *Dentomaxillofacial Radiology*. 2013; 42(8):20130072. Available from: https://www.birpublications.org/doi/pdf/10.1259/dmfr.20130072. Accessed March 2019.
[485] Mortazavi SM, Daiee E, Yazdi A, Khiabani K, Kavousi A, Vazirinejad R, Behnejad B, Ghasemi M, Mood MB. Mercury release from dental amalgam restorations after magnetic resonance imaging and following mobile phone use. *Pak J Biol Sci*. 2008; 11(8):1142-6. Available from: https://scialert.net/fulltextmobile/?doi=pjbs.2008.1142.1146. Accessed March 2019.

[486] Hosseini MA, Mehdizadeh A, Sanipour L, Afrasyabi MR, Shiravani MH, Asmarian N, Zamani A. The assessment of mercury released from dental amalgams after exposure to Wi-Fi and X-ray radiation in artificial saliva. *Eurasian Journal of Analytical Chemistry*. 2018; 13(2). Available from: https://www.researchgate.net/profile/Ma_Hosseini/publication/322729777_The_Assessment_of_Mercury_Released_from_Dental_Amalgams_after_Exposure_to_Wi-Fi_and_X-Ray_Radiation_in_Artificial_Saliva/links/5a8693230f7e9b1a95488a87/The-Assessment-of-Mercury-Released-from-Dental-Amalgams-after-Exposure-to-Wi-Fi-and-X-Ray-Radiation-in-Artificial-Saliva.pdf. Accessed March 2019.
[487] Paknahad M, Mortazavi SM, Shahidi S, Mortazavi G, Haghani M. Effect of radiofrequency radiation from Wi-Fi devices on mercury release from amalgam restorations. *Journal of Environmental Health Science and Engineering*. 2016; 14(1):12. Available from: https://jehse.biomedcentral.com/articles/10.1186/s40201-016-0253-z. Accessed March 2019.
[488] Alexandrov PN, Pogue AI, Lukiw WJ. Synergism in aluminum and mercury neurotoxicity. *Integrative Food, Nutrition and Metabolism*. 2018; 5(3). Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6013271/. Accessed March 20, 2019.
[489] Kennedy D, Seneff S, Davidson RM, Oller Jr JW, Haley BE. Environmental toxicants and infant mortality in the USA. *Peertechz J Biol Res Dev*. 2016; 1(1):036-61. Available from: https://www.researchgate.net/profile/Robert_Davidson/publication/311901276_Environmental_Toxicants_and_Infant_Mortality_in_the_USA/links/5862749408aebf17d39554e2/Environmental-Toxicants-and-Infant-Mortality-in-the-USA.pdf. Accessed March 2019.
[490] Kennedy D, Seneff S, Davidson RM, Oller Jr JW, Haley BE. Environmental toxicants and infant mortality in the USA. *Peertechz J Biol Res Dev*. 2016; 1(1):036-61. Available from: https://www.researchgate.net/profile/Robert_Davidson/publication/311901276_Environmental_Toxicants_and_Infant_Mortality_in_the_USA/links/5862749408aebf17d39554e2/Environmental-Toxicants-and-Infant-Mortality-in-the-USA.pdf. Accessed March 2019.
[491] Naguib EA, Abd-el-Rahman HA, Salih SA. Role of fluoride on corrodability of dental amalgams. *Egyptian Dental Journal*. 1994 Oct;40(4):909-18. Abstract available from: https://europepmc.org/abstract/med/9588134. Accessed March 20, 2019.
[492] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.
[493] Haley BE. The relationship of the toxic effects of mercury to exacerbation of the medical condition classified as Alzheimer's disease. *Medical Veritas.* 2007; 4(2):1510–1524. Available from: http://www.medicalveritas.com/images/00161.pdf. Accessed March 2019.
[494] Ingalls TH. Epidemiology, etiology, and prevention of multiple sclerosis. Hypothesis and fact. *Am. J. Forensic Med. Pathol.* 1983; 4(1):55-61. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/6837537. Accessed March 2019.
[495] Kennedy D, Seneff S, Davidson RM, Oller Jr JW, Haley BE. Environmental toxicants and infant mortality in the USA. *Peertechz J Biol Res Dev*. 2016; 1(1):036-61. Available from: https://www.researchgate.net/profile/Robert_Davidson/publication/311901276_Environmental_Toxicants_and_Infant_Mortality_in_the_USA/links/5862749408aebf17d39554e2/Environmental-Toxicants-and-Infant-Mortality-in-the-USA.pdf. Accessed March 2019.
[496] Schubert J, Riley EJ, Tyler SA. Combined effects in toxicology—a rapid systematic testing procedure: Cadmium, mercury, and lead. *Journal of Toxicology and Environmental Health*, Part A Current Issues. 1978; 4(5-6):763-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/15287397809529698. Accessed March 2019.
[497] Kennedy D, Seneff S, Davidson RM, Oller Jr JW, Haley BE. Environmental toxicants and infant mortality in the USA. *Peertechz J Biol Res Dev*. 2016; 1(1):036-61. Available from: https://www.researchgate.net/profile/Robert_Davidson/publication/311901276_Environmental_Toxicants_and_Infant_Mortality_in_the_USA/links/5862749408aebf17d39554e2/Environmental-Toxicants-and-Infant-Mortality-in-the-USA.pdf. Accessed March 2019.
[498] Kuraś R, Janasik B, Stanisławska M, Wąsowicz W. Revision of reciprocal action of mercury and selenium. *International Journal of Occupational Medicine and Environmental Health*. 2018;31(5):1-8. Available from https://ecnis.openrepository.com/bitstream/handle/10146/618243/Revision%20of%20reciprocal.pdf?sequence=1&isAllowed=y. Accessed March 2019.
[499] Raymond LJ, Ralston NVC. Mercury: selenium interactions and health complications. *Seychelles Medical and Dental Journal.* 2004; 7(1): 72-77. Abstract available from: http://darc.cms.udel.edu/SGSFR/Mercury%20selenium%20interactions%20and%20health%20implications.pdf. Accessed March 2019.
[500] Kostial K, Rabar I, Ciganovic M, Simonovic I. Effect of milk on mercury absorption and gut retention in rats. *Bulletin of Environmental Contamination and Toxicology*. 1979; 23(1): 566-571. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/497464. Accessed March 2019.
[501] Mata L, Sanchez L, Calvo, M. Interaction of mercury with human and bovine milk proteins. *Biosci Biotechnol Biochem.* 1997; 61(10): 1641-4. Available from: http://www.tandfonline.com/doi/pdf/10.1271/bbb.61.1641. Accessed March 2019.
[502] Hursh JB, Greenwood MR, Clarkson TW, Allen J, Demuth S. The effect of ethanol on the fate of mercury inhaled by man. *JPET*. 1980; 214(3):520-527. Abstract available from: http://jpet.aspetjournals.org/content/214/3/520.short. Accessed March 2019.

[503] European Food Safety Authority (EFSA) Panel on Contaminants in the Food Chain (CONTAM). *EFSA Journal*. 2012; 10(12):2985 [241 pp., see second to last paragraph for this quote]. doi:10.2903/j.efsa.2012.2985. Available from EFSA Web site: http://www.efsa.europa.eu/en/efsajournal/pub/2985.htm. Accessed March 2019.
[504] Goodrich JM, Chou HN, Gruninger SE, Franzblau A, Basu N. Exposures of dental professionals to elemental mercury and methylmercury. *Journal of Exposure Science and Environmental Epidemiology*. 2016; 26(1):78. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4689636/. Accessed March 2019.
[505] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. *Environmental Science and Pollution Research*. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.
[506] Heintze U, Edwardsson S, Dérand T, Birkhed D. Methylation of mercury from dental amalgam and mercuric chloride by oral streptococci in vitro. *European Journal of Oral Sciences*. 1983; 91(2):150-2. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1983.tb00792.x/abstract. Accessed March 2019.
[507] Leistevuo J, Leistevuo T, Helenius H, Pyy L, Österblad M, Huovinen P, Tenovuo J. Dental amalgam fillings and the amount of organic mercury in human saliva. *Caries Research.* 2001;35(3):163-6. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/11385194. Accessed March 2019.
[508] Liang L, Brooks RJ. Mercury reactions in the human mouth with dental amalgams. *Water, Air, and Soil Pollution.* 1995; 80(1-4):103-7. Abstract available from: https://link.springer.com/chapter/10.1007/978-94-011-0153-0_13. Accessed March 2019.
[509] Rowland IR, Grasso P, Davies MJ. The methylization of mercuric chloride by human intestinal bacteria. *Cellular and Molecular Life Sciences.* 1975; 31(9): 1064-5. http://www.springerlink.com/content/b677m8k193676v17/. Accessed March 2019.
[510] Sellars WA, Sllars R, Liang L, Hefley JD. Methyl mercury in dental amalgams in the human mouth. *Journal of Nutritional & Environmental Medicine.* 1996; 6(1):33-6. Abstract available from http://www.tandfonline.com/doi/abs/10.3109/13590849608999133. Accessed March 2019.
[511] Wang J, Liu Z. [In vitro study of Streptococcus mutans in the plaque on the surface of amalgam fillings on the conversion of inorganic mercury to organic mercury]. Shanghai kou qiang yi xue= *Shanghai Journal of Stomatology*. 2000; 9(2):70-2.Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/15014810. Accessed March 2019.
[512] Barregard L, Sallsten G, Jarvholm B. People with high mercury uptake from their own dental fillings. *Occup Envir Med.* 1995; 52(2): 124-128. Abstract available from: http://oem.bmj.com/content/52/2/124.short. Accessed March 2019
[513] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. *Epigenetics, the Environment, and Children's Health across Lifespans.* David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[514] Redhe O, Pleva J. Recovery of amyotrophic lateral sclerosis and from allergy after removal of dental amalgam fillings. *Int J Risk & Safety in Med.* 1994; 4(3): 229-236. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/235899060_Recovery_from_amyotrophic_lateral_sclerosis_and_from_allergy_after_removal_of_dental_amalgam_fillings/links/0fcfd513f4c3e10807000000.pdf. Accessed March 2019.
[515] Mangelsdorf I, Walach H, Mutter J. Healing of amyotrophic lateral sclerosis: a case report. *Complementary Medicine Research*. 2017;24(3):175-81. Available from: https://www.karger.com/Article/PDF/477397. Accessed March 2019.
[516] Hybenova M, Hrda P, Prochazkova J, Stejskal V, Sterzl I. The role of environmental factors in autoimmune thyroiditis. Neuroendocrinol. Lett. 2010; 31:283-9. Available from: http://www.melisa.org/wp-content/uploads/2016/09/the-role-of-environmental-facotirs-and-autoimmune-throiditis-2.pdf. Accessed March 2019.
[517] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed March 2019.
[518] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[519] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuroendocrinology Letters*. 1999;20(3):221-8. Available from http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[520] Sterzl I, Prochazkova J, Hrda P, Matucha P, Bartova J, Stejskal V. Removal of dental amalgam decreases anti-TPO and anti-Tg autoantibodies in patients with autoimmune thyroiditis. *Neuroendocrinology Letters*. 2006 Dec;27:25-30. Available from http://www.melisa.org/pdf/Sterzl_Am_2006.pdf. Accessed March 2019.
[521]Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014 Dec;16(12):753-8. Available from http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[522] Stejskal VD, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinology Letters.* 1999;20(5):289-98. Available from http://www.melisa.org/pdf/biomark.pdf. Accessed March 2019.
[523] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.

[524] Sterzl I, Prochazkova J, Hrda P, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuroendocrinol Lett.* 1999; 20(3-4):221-228. Available from: http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[525] Valentine-Thon E, Muller K, Guzzi G, Kreisel S, Ohnsorge P, Sandkamp M. LTT-MELISA (R) is clinically relevant for detecting and monitoring metal sensitivity. *Neuroendocrinology Letters.* 2006 Dec 1;27(1):17-24. Available from http://www.melisa.org/pdf/MELISA-is-clinically-relevant.pdf. Accessed March 2019.
[526] Yaqob A, Danersund A, Stejskal VD, Lindvall A, Hudecek R, Lindh U. Metal-specific lymphocyte reactivity is down-regulated after dental metal replacement. *Neuroendocrinology Letters.* 2006 Feb 1;27(1-2):189-97. Available from http://www.melisa.org/pdf/Yaqob_2006.pdf. Accessed March 2019.
[527] Adachia A, Horikawab T, Takashimac T, Ichihashib M. Mercury-induced nummular dermatitis. *Journal of the American Academy of Dermatology.* 2000; 43(2):383-5. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962200452746. Accessed March 2019.
[528] Feuerman EJ. Recurrent contact dermatitis caused by mercury in amalgam dental fillings. *International Journal of Dermatology.* 1975; 14(9):657-60. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-4362.1975.tb00158.x. Accessed March 2019.
[529] Pigatto PDM, Brambilla L, Ferrucci S, Guzzi G. Systemic allergic contact dermatitis due to galvanic couple between mercury amalgam and titanium implant. *Skin Allergy Meeting.* 2010.
[530] Valentine-Thon E, Muller K, Guzzi G, Kreisel S, Ohnsorge P, Sandkamp M. LTT-MELISA (R) is clinically relevant for detecting and monitoring metal sensitivity. *Neuroendocrinology Letters.* 2006 Dec 1;27(1):17-24. Available from http://www.melisa.org/pdf/MELISA-is-clinically-relevant.pdf. Accessed March 2019.
[531] Stejskal V, Öckert K, Bjørklund G. Metal-induced inflammation triggers fibromyalgia in metal-allergic patients. *Neuroendocrinology Letters*. 2013; 34(6). Available from: http://www.melisa.org/wp-content/uploads/2013/04/Metal-induced-inflammation.pdf. Accessed March 2019.
[532] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[533] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014 Dec;16(12):753-8. Available from http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[534] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed March 2019.
[535] Redhe O, Pleva J. Recovery of amyotrophic lateral sclerosis and from allergy after removal of dental amalgam fillings. *Int J Risk & Safety in Med.* 1994; 4(3): 232-233. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/235899060_Recovery_from_amyotrophic_lateral_sclerosis_and_from_allergy_after_removal_of_dental_amalgam_fillings/links/0fcfd513f4c3e10807000000.pdf. Accessed March 2019.
[536] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[537] Finne KAJ, Göransson K, Winckler L. Oral lichen planus and contact allergy to mercury. *International Journal of Oral Surgery.* 1982; 11(4):236-239. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978582800732. Accessed March 2019.
[538] Laeijendecker R, Dekker SK, Burger PM, Mulder PG, Van Joost T, Neumann MH. Oral lichen planus and allergy to dental amalgam restorations. *Archives of Dermatology*. 2004; 140(12):1434-8. Available from: https://jamanetwork.com/journals/jamadermatology/fullarticle/480908. Accessed March 2019.
[539] Lind PO, Hurlen B, Lyberg T, Aas E. Amalgam-related oral lichenoid reaction. *Scand J Dent Res.* 1986; 94(5):448-51. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1986.tb01786.x/abstract. Accessed March 2019.
[540] Lundstrom IM. Allergy and corrosion of dental materials in patients with oral lichen planus. *Int J Oral Surg.* 1984; 13(1):16. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978584800514. Accessed March 2019.
[541] Smart ER, Macleod RI, Lawrence CM. Resolution of lichen planus following removal of amalgam restorations in patients with proven allergy to mercury salts: a pilot study. *British Dental Journal*. 1995; 178(3):108. Abstract available from: https://www.nature.com/articles/4808663. Accessed March 2019.
[542] Stejskal VD, Forsbeck M, Cederbrant KE, Asteman O. Mercury-specific lymphocytes: an indication of mercury allergy in man. Journal of clinical immunology. 1996 Jan 1;16(1):31-40. Available from http://www.melisa.org/pdf/hg-specific-lymph.pdf. Accessed March 2019.
[543] Valentine-Thon E, Muller K, Guzzi G, Kreisel S, Ohnsorge P, Sandkamp M. LTT-MELISA (R) is clinically relevant for detecting and monitoring metal sensitivity. *Neuroendocrinology Letters.* 2006 Dec 1;27(1):17-24. Available from http://www.melisa.org/pdf/MELISA-is-clinically-relevant.pdf. Accessed March 2019.
[544] Camisa C, Taylor JS, Bernat JR, Helm TN. Contact hypersensitivity to mercury in amalgam restorations may mimic oral lichen planus. *Cutis.* 1999; 63(3):189-92. Abstract available from: http://europepmc.org/abstract/med/10190076. Accessed March 2019.
[545] Gönen ZB, Asan CY, Etöz O, Alkan A. Oral leukoplakia associated with amalgam restorations. *Journal of Oral Science*. 2016;58(3):445-8. Available from: https://www.jstage.jst.go.jp/article/josnusd/58/3/58_16-0071/_pdf. Accessed March 2019.

[546] Karatasli B, Karatasli G, Mete O, Erdem MA, Cankaya AB. Healing of oral lichenoid lesions following replacement of dental amalgam restorations with feldspathic ceramic inlay-onlay restorations: clinical results of a follow-up period varied from three months up to five years. *BioMed Research International*. 2018;2018. Available from: http://downloads.hindawi.com/journals/bmri/2018/7918781.pdf. Accessed March 2019.
[547] Koch P, Bahmer FA. Oral lesions and symptoms related to metals used in dental restorations: a clinical, allergological, and histologic study. *Journal of the American Academy of Dermatology*. 1999; 41(3):422-30. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962299701167. Accessed March 2019.
[548] Laine J, Kalimo K, Forssell H, Happonen R. Resolution of oral lichenoid lesions after replacement of amalgam restorations in patients allergic to mercury compounds. *JAMA.* 1992; 267(21):2880. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2133.1992.tb08395.x/abstract. Accessed March 2019.
[549] Laine J, Konttinen YT, Beliaev N, Happonen RP. Immunocompetent cells in amalgam-associated oral lichenoid contact lesions. *Journal of Oral Pathology & Medicine*. 1999; 28(3):117-21. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0714.1999.tb02008.x. Accessed March 2019.
[550] Lynch M, Ryan A, Galvin S, Flint S, Healy CM, O'Rourke N, Lynch K, Rogers S, Collins P. Patch testing in oral lichenoid lesions of uncertain etiology. *Dermatitis*. 2015; 26(2):89-93. Available from: https://journals.lww.com/dermatitis/Fulltext/2015/03000/Patch_Testing_in_Oral_Lichenoid_Lesions_of.5.aspx?WT.mc_id=HPxADx20100319xMP&utm_source=TrendMD&utm_medium=cpc&utm_campaign=Dermatitis_TrendMD_0. Accessed March 2019.
[551] Pang BK, Freeman S. Oral lichenoid lesions caused by allergy to mercury in amalgam fillings. *Contact Dermatitis.* 1995; 33(6):423-7. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0536.1995.tb02079.x/abstract. Accessed March 2019.
[552] Pawar RR, Mattigatti SS, Mahaparale RR, Kamble AP. Lichenoid reaction associated with silver amalgam restoration in a Bombay blood group patient: a case report. *Journal of Conservative Dentistry: JCD*. 2016; 19(3):289. . Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872588/. Accessed March 2019.
[553] Sharma R, Handa S, De D, Radotra BD, Rattan V. Role of dental restoration materials in oral mucosal lichenoid lesions. *Indian Journal of Dermatology, Venereology, and Leprology*. 2015 ; 81(5):478. Available from: http://www.ijdvl.com/article.asp?issn=0378-6323;year=2015;volume=81;issue=5;spage=478;epage=484;aulast=Sharma. Accessed March 2019.
[554] Skoglund A. Value of epicutaneous patch testing in patients with oral, mucosal lesions of lichenoid character. *European Journal of Oral Sciences*. 1994;102(4):216-22. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1994.tb01183.x. Accessed March 2019.
[555] Skoglund A, Egelrud T. Hypersensitivity reactions to dental materials in patients with lichenoid oral mucosal lesions and in patients with burning mouth syndrome. *European Journal of Oral Sciences*. 1991; 99(4):320-8. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1991.tb01035.x. Accessed March 2019.
[556] Suter VG, Warnakulasuriya S. The role of patch testing in the management of oral lichenoid reactions. *Journal of Oral Pathology & Medicine.* 2016 ; 45(1):48-57. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/jop.12328. Accessed March 2019.
[557] Guttman-Yassky E, Weltfriend S, Bergman R. Resolution of orofacial granulomatosis with amalgam removal. *Journal of the European Academy of Dermatology and Venereology*. 2003; 17(3):344-7. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1468-3083.2003.00793.x. Accessed March 2019.
[558] Tomka M, Machovkova A, Pelclova D, Petanova J, Arenbergerova M, Prochazkova J. Orofacial granulomatosis associated with hypersensitivity to dental amalgam. *Science Direct.* 2011; 112(3):335-341. Available from: https://www.researchgate.net/profile/Milan_Tomka/publication/51230248_Orofacial_granulomatosis_associated_with_hypersensitivity_to_dental_amalgam/links/02e7e5269407a8c6d6000000.pdf. Accessed March 2019.
[559] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters*. 2002 Oct 1;23(5-6):459. Available from http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[560] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed March 2019.
[561] Stejskal V, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinol Lett.* 1999; 20(5): 289-298. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/11460087. Accessed March 2019.
[562] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014; 16(12):753-8. Available from: http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[563] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.

[564] Björkman L, Brokstad KA, Moen K, Jonsson R. Minor changes in serum levels of cytokines after removal of amalgam restorations. *Toxicology Letters*. 2012; 211(2):120-5. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0378427412008715. Accessed March 2019.
[565] Björkman L, Sjursen TT, Dalen K, Lygre GB, Berge TL, Svahn J, Lundekvam BF. Long term changes in health complaints after removal of amalgam restorations. *Acta Odontologica Scandinavica*. 2017; 75(3):208-19. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/00016357.2016.1278262. Accessed March 2019.
[566] Hanson, M. Health and amalgam removal: a meta-analysis of 25 studies. *Tf-bladet Bull of the Swedish Association of Dental Mercury Patients.* Tf-bladet no. 2 2004 and SOU 2003:53 appendix 10, Sw. Dept. of Health. 204-216. Available from: https://iaomt.org/wp-content/uploads/article_Hanson-effects-of-amal-removal.pdf. Accessed March 2019.
[567] Huggins HA, Levy TE. Cerebrospinal fluid protein changes in multiple sclerosis after dental amalgam removal. *Altern Med Rev*. 1998; 3(4): 295-300. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/9727079. Accessed March 2019.
[568] Lindqvist B, Mörnstad H. Effects of removing amalgam fillings from patients with diseases affecting the immune system. *Medical Science Research*. 1996; 24(5):355-356.
[569] Kristoffersen AE, Alræk T, Stub T, Hamre HJ, Björkman L, Musial F. Health complaints attributed to dental amalgam: a retrospective survey exploring perceived health changes related to amalgam removal. *The Open Dentistry Journal*. 2016;10:739. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5299553/. Accessed March 2019.
[570] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters*. 2002; 23(5-6):459. Available from: http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[571] Lygre GB, Sjursen TT, Svahn J, Helland V, Lundekvam BF, Dalen K, Björkman L. Characterization of health complaints before and after removal of amalgam fillings—3-year follow-up. *Acta Odontologica Scandinavica*. 2013; 71(3-4):560-9. Abstract available from: http://www.tandfonline.com/doi/abs/10.3109/00016357.2012.697577. Accessed March 2019.
[572] Prochazkova J, Podzimek S, Tomka M, Kucerova H, Mihaljevic M, Hana K, Miksovský M, Sterzl I, Vinsova J. Metal alloys in the oral cavity as a cause of oral discomfort in sensitive patients. *Neuroendocrinology Letters*. 2006; 27:53-8. Available from: http://www.nel.edu/userfiles/articlesnew/NEL270706A03.pdf. Accessed March 2019.
[573] Siblerud RL. A comparison of mental health of multiple sclerosis patients with silver/mercury dental fillings and those with fillings removed. *Psychol Rep*. 1992; 70(3pt 2):1136-51. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/1496084. March 2019.
[574] Siblerud RL, Kienholz E. Evidence that mercury from silver dental fillings may be an etiological factor in multiple sclerosis. *The Science of the Total Environment*. 1994; 142(3): 191-205. Abstract available from: http://www.sciencedirect.com/science/article/pii/0048969794903271. Accessed March 2019.
[575] Sjursen TT, Lygre GM, Dalen K, Helland V, Laegreid T, Svahn J, Lundekvam BF, Bjorkman L. Changes in health complaints after removal of amalgam fillings. *Journal of Oral Rehabilitation.* 2011; 38(11): 835-848. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2842.2011.02223.x/full. Accessed March 2019.
[576] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett.* August 2006; 27(4): 415-423. Abstract available from: http://europepmc.org/abstract/med/16891999. Accessed March 2019.
[577] Zamm AV. Candida albicans therapy. Is there ever an end to it? Dental mercury removal: an effective adjunct. *J. Orthomol. Med.* 1986; 1(4): 261-266. Available from: http://www.orthomolecular.org/library/jom/1986/pdf/1986-v01n04-p261.pdf. Accessed March 2019.
[578] Zwicker JD, Dutton DJ, Emery JC. Longitudinal analysis of the association between removal of dental amalgam, urine mercury and 14 self-reported health symptoms. *Environmental Health*. 2014; 13(1):95. Available from: http://www.biomedcentral.com/content/pdf/1476-069X-13-95.pdf. Accessed March 2019.
[579] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed March 2019.
[580] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[581] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuroendocrinology Letters*. 1999;20(3):221-8. Available from http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[582] Sterzl I, Prochazkova J, Hrda P, Matucha P, Bartova J, Stejskal V. Removal of dental amalgam decreases anti-TPO and anti-Tg autoantibodies in patients with autoimmune thyroiditis. *Neuroendocrinology Letters*. 2006 Dec;27:25-30. Available from http://www.melisa.org/pdf/Sterzl_Am_2006.pdf. Accessed March 2019.
[583] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014 Dec;16(12):753-8. Available from http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.

[584] Stejskal VD, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinology Letters.* 1999;20(5):289-98. Available from http://www.melisa.org/pdf/biomark.pdf. Accessed March 2019.
[585] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[586] Valentine-Thon E, Muller K, Guzzi G, Kreisel S, Ohnsorge P, Sandkamp M. LTT-MELISA (R) is clinically relevant for detecting and monitoring metal sensitivity. *Neuroendocrinology Letters.* 2006 Dec 1;27(1):17-24. Available from http://www.melisa.org/pdf/MELISA-is-clinically-relevant.pdf. Accessed March 2019.
[587] Yaqob A, Danersund A, Stejskal VD, Lindvall A, Hudecek R, Lindh U. Metal-specific lymphocyte reactivity is down-regulated after dental metal replacement. *Neuroendocrinology Letters.* 2006 Feb 1;27(1-2):189-97. Available from http://www.melisa.org/pdf/Yaqob_2006.pdf. Accessed March 2019.
[588] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014 Dec;16(12):753-8. Available from http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[589] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed April 11, 2018.
[590] Valentine-Thon E, Muller K, Guzzi G, Kreisel S, Ohnsorge P, Sandkamp M. LTT-MELISA (R) is clinically relevant for detecting and monitoring metal sensitivity. *Neuroendocrinology Letters.* 2006 Dec 1;27(1):17-24. Available from http://www.melisa.org/pdf/MELISA-is-clinically-relevant.pdf. Accessed March 2019.
[591] Stejskal V, Öckert K, Bjørklund G. Metal-induced inflammation triggers fibromyalgia in metal-allergic patients. *Neuroendocrinology Letters*. 2013 Jan 1;34(6):559-65. Available from http://www.melisa.org/wp-content/uploads/2013/04/Metal-induced-inflammation.pdf. Accessed March 2019.
[592] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[593] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014 Dec;16(12):753-8. Available from http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[594] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[595] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed March 2019.
[596] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters*. 2002 Oct 1;23(5-6):459. Available from http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[597] Valentine-Thon E, Muller K, Guzzi G, Kreisel S, Ohnsorge P, Sandkamp M. LTT-MELISA (R) is clinically relevant for detecting and monitoring metal sensitivity. *Neuroendocrinology Letters.* 2006 Dec 1;27(1):17-24. Available from http://www.melisa.org/pdf/MELISA-is-clinically-relevant.pdf. Accessed March 2019.
[598] Stejskal VD, Forsbeck M, Cederbrant KE, Asteman O. Mercury-specific lymphocytes: an indication of mercury allergy in man. Journal of clinical immunology. 1996 Jan 1;16(1):31-40. Available from http://www.melisa.org/pdf/hg-specific-lymph.pdf. Accessed March 2019.
[599] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[600] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014 Dec;16(12):753-8. Available from http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[601] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed March 2019.
[602] Health Canada. *The Safety of Dental Amalgam.* 1996: 4. Available from Health Canada Web site: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.
[603] Brune D, Hensten-Pettersen AR, Beltesbrekke H. Exposure to mercury and silver during removal of amalgam restorations. *European Journal of Oral Sciences*. 1980; 88(5):460-3. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1980.tb01254.x. Accessed March 2019.
[604] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[605] Gioda A, Hanke G, Elias-Boneta A, Jiménez-Velez B. A pilot study to determine mercury exposure through vapor and bound to PM10 in a dental school environment. Toxicology and Industrial health. 2007; 23(2):103-13. Available from:

https://www.researchgate.net/profile/Braulio_Jimenez-Velez/publication/5647180_A_pilot_study_to_determine_mercury_exposure_through_vapor_and_bound_to_PM10_in_a_dental_school_environment/links/56d9a95308aebabdb40f7bd3/A-pilot-study-to-determine-mercury-exposure-through-vapor-and-bound-to-PM10-in-a-dental-school-environment.pdf. Accessed March 2019.

[606] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8):383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.

[607] Lönnroth EC, Shahnavaz H. Dental clinics--a burden to environment? *Swed Dent J.* 1996; 20(5):173. Abstract available from: http://europepmc.org/abstract/med/9000326. Accessed March 2019.

[608] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.

[609] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent.* 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.

[610] Oliveira MT, Constantino HV, Molina GO, Milioli E, Ghizoni JS, Pereira JR. Evaluation of mercury contamination in patients and water during amalgam removal. *The Journal of Contemporary Dental Practice*. 2014; 15(2):165. Available from: https://pdfs.semanticscholar.org/6d0e/2795983e3177de35351e61923af7cde472b5.pdf. Accessed March 2019.

[611] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6): 1519-1531. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/1080703039025101O#.VnNn0vkrIgs. Accessed March 2019.

[612] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[613] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.

[614] American Dental Association. Oral health topics: Amalgam waste best management. Available from: http://www.ada.org/en/member-center/oral-health-topics/amalgam-waste-best-management. Accessed March 2019.

[615] IAOMT. Safe Removal of Amalgam Fillings. Available from: https://iaomt.org/safe-removal-amalgam-fillings/. Accessed March 2019.

[616] United States Environmental Protection Agency. Dental effluent guidelines. Available from: https://www.epa.gov/eg/dental-effluent-guidelines. Last updated December 1, 2017. Accessed March 2019.

[617] Adegbembo AO, Watson PA, Lugowski SJ. The weight of wastes generated by removal of dental amalgam restorations and the concentration of mercury in dental wastewater. *Journal-Canadian Dental Association.* 2002; 68(9):553-8. Available from: https://pdfs.semanticscholar.org/9759/35fac90f7abd015be12da55d5762a4616860.pdf. Accessed March 2019.

[618] al-Shraideh M, al-Wahadni A, Khasawneh S, al-Shraideh MJ. The mercury burden in waste water released from dental clinics. *SADJ: Journal of the South African Dental Association (Tydskrif van die Suid-Afrikaanse Tandheelkundige Vereniging).* 2002; 57(6):213-5. Abstract available from: https://europepmc.org/abstract/med/12229075. Accessed March 2019.

[619]Alothmani O. Air quality in the endodontist's dental surgery. New Zealand Endodontic Journal. 2009; 39: 12. Available at: http://www.nzse.org.nz/docs/Vol.%2039%20January%202009.pdf. Accessed March 2019.

[620] Arenholt-Bindslev D. Dental amalgam—environmental aspects. *Advances in Dental Research*. 1992; 6(1):125-30. Available from: https://www.researchgate.net/publication/21864156_Dental_amalgam_-_Environmental_aspects. Accessed March 2019.

[621] Arenholt-Bindslev D, Larsen AH. Mercury levels and discharge in waste water from dental clinics. *Water, Air, and Soil Pollution.* 1996; 86(1-4):93-9. Abstract available at: http://link.springer.com/article/10.1007/BF00279147. Accessed March 2019.

[622] Batchu H, Rakowski D, Fan PL, Meyer DM. Evaluating amalgam separators using an international standard. *The Journal of the American Dental Association*. 2006; 137(7):999-1005. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/16803827. Accessed March 2019.

[623] Chou HN, Anglen J. An evaluation of amalgam separators. *ADA Professional Product Review.* 2012; 7(2): 2-7.

[624] Fan PL, Batchu H, Chou HN, Gasparac W, Sandrik J, Meyer DM. Laboratory evaluation of amalgam separators. *The Journal of the American Dental Association*. 2002; 133(5):577-89. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/12036162. Accessed March 2019.

[625] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.

[626] Hylander LD, Lindvall A, Uhrberg R, Gahnberg L, Lindh U. Mercury recovery in situ of four different dental amalgam separators. *Science of the Total Environment.* 2006; 366(1):320-36. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/16182343. Accessed March 2019.

[627] Khwaja MA, Nawaz S, Ali SW. Mercury exposure in the work place and human health: dental amalgam use in dentistry at dental teaching institutions and private dental clinics in selected cities of Pakistan. *Reviews on Environmental Health.* 2016. Available from: https://www.researchgate.net/publication/291390990_Mercury_exposure_in_the_work_place_and_human_health_Dental_amalgam_use_in_dentistry_at_dental_teaching_institutions_and_private_dental_clinics_in_selected_cities_of_Pakistan. Accessed March 2019.
[628] Stone ME, Cohen ME, Berry DL, Ragain JC. Design and evaluation of a filter-based chairside amalgam separation system. *Science of the Total Environment*. 2008; 396(1):28-33. Abstract available from: https://europepmc.org/abstract/med/18394681. Accessed March 2019.
[629] Vandeven J, McGinnis S. An assessment of mercury in the form of amalgam in dental wastewater in the United States. Water, Air and Soil Pollution. 2005; 164: 349-366. DCN 0469. Abstract available from: https://link.springer.com/article/10.1007/s11270-005-4008-1. Accessed March 2019.
[630] Directorate of Health [Oslo, Norway]. Nasjonale faglige retningslinjer for utredning og behandling ved mistanke om bivirkninger fra odontologiske biomaterialer [National guidelines for assessment and treatment for suspected adverse effects from dental biomaterials]. Oslo: Hesedirektoratet, avdeling omsorg og Tannhelse. November 2008. Available from: https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/488/Nasjonal-faglig-retningslinje-om-bivirkninger-fra-odontologiske-biomaterialer-IS-1481.pdf. Accessed March 2019.
[631] Huggins HA, Levy TE. Cerebrospinal fluid protein changes in multiple sclerosis after dental amalgam removal. *Alternative Medicine Review*. 1998; 3:295-300. Available from: https://pdfs.semanticscholar.org/322b/68ad8d960f16fc6d82daeff164e782653cfb.pdf. Accessed March 2019.
[632] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry of Tehran University of Medical Sciences*. 2010; 7(2):55-63. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[633] Reinhardt JW, Chan KC, Schulein TM. Mercury vaporization during amalgam removal. *The Journal of Prosthetic Dentistry*. 1983; 50(1):62-4. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90167-1/pdf. Accessed March 2019.
[634] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2393. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[635] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[636] Agency for Toxic Substances and Disease Registry. Mercury Quick Facts. Cleaning up spills in your house. February 2009. Available at: http://www.atsdr.cdc.gov/mercury/docs/Residential_Hg_Spill_Cleanup.pdf. Accessed March 2019.
[637] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2393. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[638] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry of Tehran University of Medical Sciences*. 2010; 7(2):55-63. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[639] Merfield DP, Taylor A, Gemmell DM, Parrish JA. Mercury intoxication in a dental surgery following unreported spillage. *British Dental Journal*. 1976; 141(6):179.
[640] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392, 2393. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[641] Colson DG. A safe protocol for amalgam removal. *Journal of Environmental and Public Health;* 2012. Page 2. doi:10.1155/2012/517391. Available at: http://downloads.hindawi.com/journals/jeph/2012/517391.pdf. Accessed March 2019.
[642] Mercola J, Klinghardt D. Mercury toxicity and systemic elimination agents. *Journal of Nutritional & Environmental Medicine*. 2001;11(1):53-62. Available from: https://pdfs.semanticscholar.org/957a/c002e59df5e69605c3d2126cc53ce84f063b.pdf. Accessed March 2019.
[643] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[644] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[645] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from:

https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.

[646] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[647] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[648] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent*. 1990; 63(2):228-33. Abstract available at: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.

[649] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[650] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[651] Warwick R, O'Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *J Occup Med Toxicol*. 2013; 8(1):27. Available from: http://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.

[652] LBNL (Lawrence Berkley National Laboratory). *Pick The Right Gloves for The Chemicals You Handle*. Berkley, CA: Lawrence Berkley National Laboratory, US Department of Energy. Undated. Available from: http://amo-csd.lbl.gov/downloads/Chemical%20Resistance%20of%20Gloves.pdf. Accessed March 2019.

[653] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.

[654] Rego A, Roley L. In-use barrier integrity of gloves: latex and nitrile superior to vinyl. American *Journal of Infection Control.* 1999; 27(5):405-10. Abstract available at: http://www.ajicjournal.org/article/S0196-6553(99)70006-4/fulltext?refuid=S1538-5442(01)70020-X&refissn=0045-9380&mobileUi=0. Accessed March 2019.

[655] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[656] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.

[657] Colson DG. A safe protocol for amalgam removal. *Journal of Environmental and Public Health;* 2012. Page 3. doi:10.1155/2012/517391. Available at: http://downloads.hindawi.com/journals/jeph/2012/517391.pdf. Accessed March 2019.

[658] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[659] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.

[660] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent*. 1990; 63(2):228-33. Abstract available at: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.

[661] Reinhardt JW, Chan KC, Schulein TM. Mercury vaporization during amalgam removal. *The Journal of Prosthetic Dentistry*. 1983; 50(1):62-4.

[662] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.

[663] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.

[664] Colson DG. A safe protocol for amalgam removal. *Journal of Environmental and Public Health;* 2012. Pages2-3. doi:10.1155/2012/517391. Available at: http://downloads.hindawi.com/journals/jeph/2012/517391.pdf. Accessed March 2019.
[665] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[666] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[667] Colson DG. A safe protocol for amalgam removal. *Journal of Environmental and Public Health;* 2012. Page 3. doi:10.1155/2012/517391. Available at: http://downloads.hindawi.com/journals/jeph/2012/517391.pdf. Accessed March 2019.
[668] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[669] Directorate of Health [Oslo, Norway]. Nasjonale faglige retningslinjer for utredning og behandling ved mistanke om bivirkninger fra odontologiske biomaterialer [National guidelines for assessment and treatment for suspected adverse effects from dental biomaterials]. Oslo: Hesedirektoratet, avdeling omsorg og Tannhelse. November 2008. Available from: https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/488/Nasjonal-faglig-retningslinje-om-bivirkninger-fra-odontologiske-biomaterialer-IS-1481.pdf. Accessed March 2019.
[670] Berglund A, Molin M. Mercury levels in plasma and urine after removal of all amalgam restorations: the effect of using rubber dams. *Dental Materials*. 1997; 13(5):297-304. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/9823089. Accessed March 2019.
[671] Halbach S, Kremers L, Willruth H, Mehl A, Welzl G, Wack FX, Hickel R, Greim H. Systemic transfer of mercury from amalgam fillings before and after cessation of emission. *Environmental Research*. 1998; 77(2):115-23. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/9600804. Accessed March 2019.
[672] Huggins HA, Levy TE. Cerebrospinal fluid protein changes in multiple sclerosis after dental amalgam removal. *Alternative Medicine Review*. 1998; 3:295-300. Available from: https://pdfs.semanticscholar.org/322b/68ad8d960f16fc6d82daeff164e782653cfb.pdf. Accessed March 2019.
[673] Reinhardt JW, Boyer DB, Svare CW, Frank CW, Cox RD, Gay DD. Exhaled mercury following removal and insertion of amalgam restorations. *The Journal of Prosthetic Dentistry*. 1983;49(5):652-6. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90391-8/pdf. Accessed March 2019.
[674] Reinhardt JW, Chan KC, Schulein TM. Mercury vaporization during amalgam removal. *The Journal of Prosthetic Dentistry*. 1983; 50(1):62-4. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90167-1/pdf. Accessed March 2019.
[675] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. Neuro Endocrinol Lett. 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[676] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[677] Rego A, Roley L. In-use barrier integrity of gloves: latex and nitrile superior to vinyl. American *Journal of Infection Control.* 1999; 27(5):405-10. Abstract available at: http://www.ajicjournal.org/article/S0196-6553(99)70006-4/fulltext?refuid=S1538-5442(01)70020-X&refissn=0045-9380&mobileUi=0. Accessed March 2019.
[678] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[679] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[680] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[681] Erdinger L., Rezvani P., Hammes F., Sonntag HG. Improving indoor air quality in hospital environments and dental practices with modular stand-alone air cleaning devices. *Research Report of the Institute of Hygiene, University of Heidelberg, Germany* published during the proceedings of the 8th International Conference on Indoor Air Quality and Climate Indoor Air 99 in Edinburgh, Scotland, August 1999. Available from: https://www.iqair.com/sites/default/files/pdf/Research-Report-Improving-Indoor-Air-Quality-in-Dental-Practices_v2.pdf. Accessed March 2019.
[682] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019

Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[683] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. Neuro Endocrinol Lett. 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[684] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[685] Directorate of Health [Oslo, Norway]. Nasjonale faglige retningslinjer for utredning og behandling ved mistanke om bivirkninger fra odontologiske biomaterialer [National guidelines for assessment and treatment for suspected adverse effects from dental biomaterials]. Oslo: Hesedirektoratet, avdeling omsorg og Tannhelse. November 2008. Available from: https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/488/Nasjonal-faglig-retningslinje-om-bivirkninger-fra-odontologiske-biomaterialer-IS-1481.pdf. Accessed March 2019.
[686] Brune D, Hensten-Pettersen AR, Beltesbrekke H. Exposure to mercury and silver during removal of amalgam restorations. *European Journal of Oral Sciences*. 1980; 88(5):460-3. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1980.tb01254.x. Accessed March 2019.
[687] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[688] Pleva J. Mercury from dental amalgams: exposure and effects. *International Journal of Risk & Safety in Medicine*. 1992; 3(1):1-22. Abstract available from: https://content.iospress.com/articles/international-journal-of-risk-and-safety-in-medicine/jrs3-1-01. Accessed March 2019.
[689] Reinhardt JW, Boyer DB, Svare CW, Frank CW, Cox RD, Gay DD. Exhaled mercury following removal and insertion of amalgam restorations. *The Journal of Prosthetic Dentistry*. 1983; 49(5):656. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90391-8/pdf. Accessed March 2019.
[690] Richards JM, Warren PJ. Mercury vapour released during the removal of old amalgam restorations. *British Dental Journal*. 1985; 159(7):231.
[691] Reinhardt JW, Chan KC, Schulein TM. Mercury vaporization during amalgam removal. *The Journal of Prosthetic Dentistry*. 1983; 50(1):62-4. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90167-1/pdf. Accessed March 2019.
[692] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[693] Directorate of Health [Oslo, Norway]. Nasjonale faglige retningslinjer for utredning og behandling ved mistanke om bivirkninger fra odontologiske biomaterialer [National guidelines for assessment and treatment for suspected adverse effects from dental biomaterials]. Oslo: Hesedirektoratet, avdeling omsorg og Tannhelse. November 2008. Available from: https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/488/Nasjonal-faglig-retningslinje-om-bivirkninger-fra-odontologiske-biomaterialer-IS-1481.pdf. Accessed March 2019.
[694] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[695] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[696] Huggins HA, Levy TE. Cerebrospinal fluid protein changes in multiple sclerosis after dental amalgam removal. *Alternative Medicine Review*. 1998; 3:295-300. Available from: https://pdfs.semanticscholar.org/322b/68ad8d960f16fc6d82daeff164e782653cfb.pdf. Accessed March 2019.
[697] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry (Tehran, Iran).* 2010;7(2):55. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[698] Pleva J. Mercury from dental amalgams: exposure and effects. *International Journal of Risk & Safety in Medicine*. 1992; 3(1):1-22. Abstract available from: https://content.iospress.com/articles/international-journal-of-risk-and-safety-in-medicine/jrs3-1-01. Accessed March, 2019.
[699] Reinhardt JW, Boyer DB, Svare CW, Frank CW, Cox RD, Gay DD. Exhaled mercury following removal and insertion of amalgam restorations. *The Journal of Prosthetic Dentistry*. 1983;49(5):652-6. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90391-8/pdf. Accessed March 2019.
[700] Reinhardt JW, Chan KC, Schulein TM. Mercury vaporization during amalgam removal. *The Journal of Prosthetic Dentistry*. 1983; 50(1):62-4. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90167-1/pdf. Accessed March 2019.
[701] Richards JM, Warren PJ. Mercury vapour released during the removal of old amalgam restorations. *British Dental Journal*. 1985; 159(7):231.

[702] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[703] Warwick R, O'Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *J Occup Med Toxicol*. 2013; 8(1):27. Available at: http://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.
[704] Directorate of Health [Oslo, Norway]. Nasjonale faglige retningslinjer for utredning og behandling ved mistanke om bivirkninger fra odontologiske biomaterialer [National guidelines for assessment and treatment for suspected adverse effects from dental biomaterials]. Oslo: Hesedirektoratet, avdeling omsorg og Tannhelse. November 2008. Available from: https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/488/Nasjonal-faglig-retningslinje-om-bivirkninger-fra-odontologiske-biomaterialer-IS-1481.pdf. Accessed March 2019.
[705] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2393. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[706] Colson DG. A safe protocol for amalgam removal. *Journal of Environmental and Public Health;* 2012. Page 3. doi:10.1155/2012/517391. Available at: http://downloads.hindawi.com/journals/jeph/2012/517391.pdf. Accessed March 2019.
[707] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[708] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry of Tehran University of Medical Sciences*. 2010; 7(2):55-63. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[709] Reinhardt JW, Boyer DB, Svare CW, Frank CW, Cox RD, Gay DD. Exhaled mercury following removal and insertion of amalgam restorations. *The Journal of Prosthetic Dentistry*. 1983; 49(5):656. Abstract available from: https://www.thejpd.org/article/0022-3913(83)90391-8/pdf. Accessed March 2019.
[710] Cabaña-Muñoz ME, Parmigiani-Izquierdo JM, Parmigiani-Cabaña JM, Merino JJ. Safe removal of amalgam fillings in dental clinic: use of synergic nasal filters (active carbon) and phytonaturals. *International Journal of Science and Research (IJSR).* 2015; 4(3): 2392, 2393. Available at: http://www.ijsr.net/archive/v4i3/SUB152554.pdf. Accessed March 2019.
[711] Colson DG. A safe protocol for amalgam removal. *Journal of Environmental and Public Health;* 2012. Page 3. doi:10.1155/2012/517391. Available at: http://downloads.hindawi.com/journals/jeph/2012/517391.pdf. Accessed March 2019.
[712] Mercola J, Klinghardt D. Mercury toxicity and systemic elimination agents. *Journal of Nutritional & Environmental Medicine*. 2001;11(1):53-62. Available from: https://pdfs.semanticscholar.org/957a/c002e59df5e69605c3d2126cc53ce84f063b.pdf. Accessed March 2019.
[713] Ramesh KK, Ramesh M, Krishnan R. Management and disposal of mercury and amalgam in the dental clinics of South India: A cross-sectional study. *Journal of Pharmacy & Bioallied Sciences*. 2019 May;11(Suppl 2):S151. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6555386/. Accessed July 22, 2019.
[714] Laske M, Opdam NJ, Bronkhorst EM, Braspenning JC, Huysmans MC. Longevity of direct restorations in Dutch dental practices. Descriptive study out of a practice based research network. *Journal of Dentistry*. 2016 Mar 1;46:12-7. Available from: https://repository.ubn.ru.nl/bitstream/handle/2066/201886/201886.pdf?sequence=1#page=21. Accessed March 2019.
[715] McCracken MS, Gordan VV, Litaker MS, Funkhouser E, Fellows JL, Shamp DG, Qvist V, Meral JS, Gilbert GH. A 24-month evaluation of amalgam and resin-based composite restorations: Findings from The National Dental Practice-Based Research Network. *The Journal of the American Dental Association*. 2013; 144(6):583-93. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3694730/. Accessed March 2019.
[716] Laccabue M, Ahlf RL, Simecek JW. Frequency of restoration replacement in posterior teeth for US Navy and Marine Corps personnel. Operative dentistry. 2014; 39(1):43-9. Abstract available from: http://www.jopdentonline.org/doi/abs/10.2341/12-406-C. Accessed March 2019.
[717] Vieira AR, Silva MB, Souza KK, Arnôldo Filho VA, Rosenblatt A, Modesto A. A pragmatic study shows failure of dental composite fillings is genetically determined: a contribution to the discussion on dental amalgams. *Frontiers in Medicine*. 2017; 4:186. Available from: https://www.frontiersin.org/articles/10.3389/fmed.2017.00186/full. Accessed March 2019.
[718] Pallesen U, van Dijken JW. A randomized controlled 30 years follow up of three conventional resin composites in Class II restorations. *Dental Materials*. 2015; 31(10):1232-44. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0109564115003607. Accessed March 2019.
[719] Opdam NJ, van de Sande FH, Bronkhorst E, Cenci MS, Bottenberg P, Pallesen U, Gaengler P, Lindberg A, Huysmans MC, van Dijken JW. Longevity of Posterior Composite Restorations: A Systematic Review and Meta-analysis. *Journal of Dental Research*. 2014; 93(10):943-9. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4293707/. Accessed March 2019.
[720] Rodolpho PAD, Donassollo TA, Cenci MS, Loguércio AD, Moraes RR, Bronkhorst EM, Opdam NJ, Demarco FF. 22-Year clinical evaluation of the performance of two posterior composites with different filler characteristics. *Dental Materials*. 2011; 27(10):955-63. Available from: https://www.researchgate.net/profile/Rafael_Moraes6/publication/51496272_22-

Year_clinical_evaluation_of_the_performance_of_two_posterior_composites_with_different_filler_characteristics/links/00b7d531750b429121000000.pdf. Accessed March 2019.
[721] Richardson GM, Clemow SR, Peters RE, James KJ, Siciliano SD. Assessment of exposures and potential risks to the US adult population from wear (attrition and abrasion) of gold and ceramic dental restorations. *Journal of Exposure Science and Environmental Epidemiology*. 2016 Jan 1;26(1):70-7. Abstract available from: https://www.nature.com/articles/jes201517. Accessed March 2019.
[722] See Admira Fusion on the VOCO website at http://www.voco.com/us/product/admira_fusion/index.html. Accessed March 2019.
[723] See Admira Fusion X-tra on the VOCO website at http://www.voco.com/us/product/admira_fusion_xtra/index.html. Accessed March 2019
[724] See Admira/Admira Fusion X-tra News on VOCO website at http://www.voco.com/en/company/news/Admira_Fusion-Admira_Fusion_x-tra/index.html. Accessed March 2019.
[725] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. *Epigenetics, the Environment, and Children's Health across Lifespans.* David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[726] Ko JW, Nicholson TA, Hoffler CE, Williams Jr G, Getz C. Metal allergy as a cause of implant failure in shoulder arthroplasty. *Orthopedics.* 2017 Oct 10;40(5):e844-8. Abstract available from https://www.ncbi.nlm.nih.gov/pubmed/28776630. Accessed March 2019.
[727] Dry J, Leynadier F, Bennani A, Piquet P, Salat J. Intrauterine copper contraceptive devices and allergy to copper and nickel. *Annals of Allergy*. 1978 Sep;41(3):194. Abstract available from https://www.ncbi.nlm.nih.gov/pubmed/686515. Accessed March 2019.
[728] Schalock PC, Menné T, Johansen JD, Taylor JS, Maibach HI, Lidén C, Bruze M, Thyssen JP. Hypersensitivity reactions to metallic implants–diagnostic algorithm and suggested patch test series for clinical use. *Contact Dermatitis*. 2012 Jan 1;66(1):11. Available from https://onlinelibrary.wiley.com/doi/full/10.1111/j.1600-0536.2011.01971.x. Accessed March 2019.
[729] Stejskal VD, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinology Letters.* 1999;20(5):289-98. Available from http://www.melisa.org/pdf/biomark.pdf. Accessed March 2019.
[730] Stejskal V, Öckert K, Bjørklund G. Metal-induced inflammation triggers fibromyalgia in metal-allergic patients. *Neuroendocrinology Letters*. 2013 Jan 1;34(6):559-65. Available from http://www.melisa.org/wp-content/uploads/2013/04/Metal-induced-inflammation.pdf. Accessed March 2019.
[731] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuroendocrinology Letters*. 1999;20(3):221-8. Available from http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[732] Teo ZW, Schalock PC. Hypersensitivity reactions to implanted metal devices: facts and fictions. *J Investig Allergol Clin Immunol*. 2016 Jan 1;26(5):280. Available from https://pdfs.semanticscholar.org/698e/e81a0e73f24113646ef6e9d0ec9f34b7e135.pdf. Accessed March 2019.
[733] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[734] Stejskal VD, Cederbrant K, Lindvall A, Forsbeck M. MELISA—an in vitro tool for the study of metal allergy. *Toxicology in vitro*. 1994 Oct 1;8(5):991-1000. Available from http://www.melisa.org/pdf/MELISA-1994.pdf. Accessed March 2019.
[735] ELISA/ACT Biotechnologies Website is https://www.elisaact.com/. Accessed March 2019.
[736] Koral S. A practical guide to compatibility testing for dental materials. IAOMT. Available from: http://iaomt.org/practical-guide-compatibility-testing-dental-materials/. Accessed March 2019.
[737] Biocomp Laboratories Website is https://biocomplabs.com/. Accessed March 2019.
[738] Clifford Consulting and Research Website is http://www.ccrlab.com/. Accessed March 2019.
[739] Aaseth J, Hilt B, Bjørklund G. Mercury exposure and health impacts in dental personnel. *Environmental Research*. 2018; 164:65-9. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0013935118300847. Accessed March 2019.
[740] Ahlbom A, Norell S, Rodvall Y, Nylander M. Dentists, dental nurses, and brain tumors. *Br. Med. J.* 1986; 292(6521):662. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1339649/pdf/bmjcred00224-0024.pdf. Accessed March 2019.
[741] Akesson I, Schutz A, Attewell R, Skerfving S, Glantz PO. Status of mercury and selenium in dental personnel: impact of amalgam work and own fillings. *Archives of Environmental Health: An International Journal*. 1991; 46(2):102-9. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1991.9937436. Accessed March 2019.
[742] Al-Amodi HS, Zaghloul A, ALrefai AA, Adly HM. The hematological changes in dental staff: their relation to mercury vapor. *International Journal of Pharmaceutical Research & Allied Sciences*. 2018; 7(2). Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/08958378.2017.1369601. Accessed March 2019.
[743] Al-Zubaidi ES, Rabee AM. The risk of occupational exposure to mercury vapor in some public dental clinics of Baghdad city, Iraq. *Inhalation Toxicology*. 2017; 29(9):397-403. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/08958378.2017.1369601. Accessed March 2019.

[744] Anglen J, Gruninger SE, Chou HN, Weuve J, Turyk ME, Freels S, Stayner LT. Occupational mercury exposure in association with prevalence of multiple sclerosis and tremor among US dentists. *The Journal of the American Dental Association.* 2015; 146(9):659-68. Abstract available from: http://jada.ada.org/article/S0002-8177(15)00630-3/abstract. Accessed March 2019.
[745] Bjørklund G, Hilt B, Dadar M, Lindh U, Aaseth J. Neurotoxic effects of mercury exposure in dental personnel. *Basic & Clinical Pharmacology & Toxicology*. 2018: 1-7. Abstract available from: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13199. Accessed March 2019.
[746] Buchwald H. Exposure of dental workers to mercury. *Am Ind Hyg Assoc J.* 1972; 33(7):492-502. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/0002889728506692. Accessed March 2019.
[747] Cooper GS, Parks CG, Treadwell EL, St Clair EW, Gilkeson GS, Dooley MA. Occupational risk factors for the development of systemic lupus erythematosus. *J Rheumatol*. 2004; 31(10):1928-1933. Available from: http://www.jrheum.org/content/31/10/1928.short. Accessed March 2019.
[748] de Oliveira MT, Pereira JR, Ghizoni JS, Bittencourt ST, Molina GO. Effects from exposure to dental amalgam on systemic mercury levels in patients and dental school students. *Photomed Laser Surg.* 2010; 28(S2):S-111. Abstract available from: https://www.researchgate.net/profile/Jefferson_Pereira/publication/47369541_Effects_from_exposure_to_dental_amalgam_on_systemic_mercury_levels_in_patients_and_dental_school_students/links/02bfe50f9f8bf8946e000000.pdf. Accessed March 2019.
[749] Duplinsky TG, Cicchetti DV. The health status of dentists exposed to mercury from silver amalgam tooth restorations. *International Journal of Statistics in Medical Research*. 2012; 1(1):1-15. Available from: http://www.lifesciencesglobal.com/pms/index.php/ijsmr/article/download/433/pdf. Accessed March 2019.
[750] Echeverria D, Aposhian HV, Woods JS, Heyer NJ, Aposhian MM, Bittner AC, Mahurin RK, Cianciola M. Neurobehavioral effects from exposure to dental amalgam Hgo: new distinctions between recent exposure and body burden. *FASEBJ*. 1998; 12(11):971-980. Available from: http://www.fasebj.org/content/12/11/971.long. Accessed March 2019.
[751] Echeverria D, Heyer N, Martin MD, Naleway CA, Woods JS, Bittner AC. Behavioral effects of low-level exposure to Hg0 among dentists. *Neurotoxicol Teratol.* 1995; 17(2):161-8. Abstract available from: http://www.sciencedirect.com/science/article/pii/089203629400049J. Accessed March 2019.
[752] Echeverria D, Woods JS, Heyer NJ, Rohlman D, Farin F, Li T, Garabedian CE. The association between a genetic polymorphism of coproporphyrinogen oxidase, dental mercury exposure and neurobehavioral response in humans. *Neurotoxicol Teratol*. 2006; 28(1):39-48. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001492. Accessed March 2019.
[753] Echeverria D, Woods JS, Heyer NJ, Rohlman DS, Farin FM, Bittner AC, Li T, Garabedian C. Chronic low-level mercury exposure, BDNF polymorphism, and associations with cognitive and motor function. *Neurotoxicology and Teratology*. 2005; 27(6):781-796. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001285. Accessed March 2019.
[754] El-Badry A, Rezk M, El-Sayed H. Mercury-induced oxidative stress may adversely affect pregnancy outcome among dental staff: a cohort study. *The International Journal of Occupational and Environmental Medicine*. 2018; 9(3 July):1181-3. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/1181/985. Accessed March 2019.
[755] Fabrizio E, Vanacore N, Valente M, Rubino A, Meco G. High prevalence of extrapyramidal signs and symptoms in a group of Italian dental technicians. *BMC Neurol*. 2007; 7(1):24. Available from: http://www.biomedcentral.com/1471-2377/7/24. Accessed March 2019.
[756] Fell AKM, Eikeland R, Aaseth JO. A woman in her thirties with cough, tremor, agitation and visual disturbances. *Tidsskr Nor Legeforen*. 2016; 136(14-15):1233. Available from: https://www.researchgate.net/profile/Jan_Aaseth2/publication/306529761_En_kvinne_i_30-arene_med_hoste_tremor_uro_og_synsforstyrrelser/links/57c5cf8b08ae424fb2cf8219.pdf. Accessed March 2019.
[757] Galligan C, Sama S, Brouillette N. Occupational Exposure to Elemental Mercury in Odontology/Dentistry. Lowell, MA: University of Massachusetts; 2012. Available from: https://www.uml.edu/docs/Occupational%20Exposure%20to%20Elemental%20Mercury%20in%20Dentistry_tcm18-232339.pdf. Accessed March 2019.
[758] Gelbier S, Ingram J. Possible fetotoxic effects of mercury vapor: a case report. *Public Health.* 1989; 103(1):35-40. Available from: http://www.sciencedirect.com/science/article/pii/S0033350689801003. Accessed March 2019.
[759] Gioda A, Hanke G, Elias-Boneta A, Jiménez-Velez B. A pilot study to determine mercury exposure through vapor and bound to PM10 in a dental school environment. *Toxicology and Industrial Health*. 2007; 23(2):103-13. Available from: https://www.researchgate.net/profile/Braulio_Jimenez-Velez/publication/5647180_A_pilot_study_to_determine_mercury_exposure_through_vapor_and_bound_to_PM10_in_a_dental_school_environment/links/56d9a95308aebabdb40f7bd3/A-pilot-study-to-determine-mercury-exposure-through-vapor-and-bound-to-PM10-in-a-dental-school-environment.pdf. Accessed March 2019.
[760] Goodrich JM, Wang Y, Gillespie B, Werner R, Franzblau A, Basu N. Methylmercury and elemental mercury differentially associate with blood pressure among dental professionals. *Int J Hyg Environ Health.* 2013; 216(2):195-201. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727420/. Accessed March 2019.
[761] Hilt B, Svendsen K, Syversen T, Aas O, Qvenild T, Sletvold H, Melø I. Occurrence of cognitive symptoms in dental assistants with previous occupational exposure to metallic mercury. *Neurotoxicology.* 2009; 30(6):1202-1206. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0161813X09001119. Accessed March 2019.

[762] Jamil N, Baqar M, Ilyas S, Qadir A, Arslan M, Salman M, Ahsan N, Zahid H. Use of mercury in dental silver amalgam: an occupational and environmental assessment. *BioMed Research International*. 2016; 2016. Available from: http://downloads.hindawi.com/journals/bmri/2016/6126385.pdf. Accessed March 2019.
[763] Jesus LF, Moreira FR. Impact of exposure to low levels of mercury on the health of dental workers. *Acta Scientiarum. Health Sciences*. 2016; 38(2):219. Available from: https://www.redalyc.org/html/3072/307247622014/. Accessed March 2019.
[764] Johnson KF. Mercury hygiene. *Dental Clinics of North America.* 1978; 22(3):477-89. Abstract available from: http://europepmc.org/abstract/med/277421. Accessed March 2019.
[765] Kanerva L, Lahtinen A, Toikkanen J, Forss H, Estlander T, Susitaival P, Jolanki R. Increase in occupational skin diseases of dental personnel. *Contact Dermatitis.* 1999; 40(2):104-108. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0536.1999.tb06000.x/abstract. Accessed March 2019.
[766] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8):383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.
[767] Kasraei S, Mortazavi H, Vahedi M, Vaziri PB, Assary MJ. Blood mercury level and its determinants among dental practitioners in Hamadan, Iran. *Journal of Dentistry (Tehran, Iran).* 2010;7(2):55. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184749/. Accessed March 2019.
[768] Khwaja MA, Abbasi MS, Mehmood FA, Jahangir SE. Study of high levels indoor air mercury contamination from mercury amalgam use in dentistry. *Science Technology and Development*. 2014;33(2):94-106. Available from: http://docsdrive.com/pdfs/std/std/2014/94-106.pdf. Accessed March 2019.
[769] Lee JY, Yoo JM, Cho BK, Kim HO. Contact dermatitis in Korean dental technicians. *Contact Dermatitis.* 2001; 45(1):13-16. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1034/j.1600-0536.2001.045001013.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[770] Lindbohm ML, Ylöstalo P, Sallmén M, Henriks-Eckerman ML, Nurminen T, Forss H, Taskinen H. Occupational exposure in dentistry and miscarriage. Occupational and environmental medicine. 2007; 64(2):127-33. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2078431/. Accessed March 2019.
[771] Lönnroth EC, Shahnavaz H. Amalgam in dentistry. A survey of methods used at dental clinics in Norrbotten to decrease exposure to mercury vapour. *Swed Dent J.* 1995; 19(1-2):55. Abstract available from: http://europepmc.org/abstract/med/7597632. Accessed March 2019.
[772] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[773] Ngim CH, Foo SC, Boey KW, Jeyaratnem J. Chronic neurobehavioural effects of elemental mercury in dentists. *Br J Ind Med.* 1992; 49(11):782-790. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1039326/pdf/brjindmed00023-0040.pdf. Accessed March 2019.
[774] Nylander M, Friberg L, Eggleston D, Björkman L. Mercury accumulation in tissues from dental staff and controls in relation to exposure. *Swed Dent J*. 1989; 13(6):235-236. Abstract available from: http://europepmc.org/abstract/med/2603127. Accessed March 2019.
[775] Olfert, SM. Reproductive outcomes among dental personnel: a review of selected exposures. Journal (Canadian Dental Association). 2006; 72(9), 821. Available from: https://pdfs.semanticscholar.org/194c/a58b22b26596adaacabd72dedc8ae92ccf1b.pdf. Accessed March 2019.
[776] Oliveira MT, Constantino HV, Molina GO, Milioli E, Ghizoni JS, Pereira JR. Evaluation of mercury contamination in patients and water during amalgam removal. *The Journal of Contemporary Dental Practice*. 2014; 15(2):165. Abstract available from: https://europepmc.org/abstract/med/25095837. Accessed March 2019.
[777] Parsell DE, Karns L, Buchanan WT, Johnson RB. Mercury release during autoclave sterilization of amalgam. *J Dent Educ.* 1996; 60(5):453-458. Abstract available from: http://www.jdentaled.org/content/60/5/453.short. Accessed March 2019.
[778] Pérez-Gómez B, Aragonés N, Gustavsson P, Plato N, López-Abente G, Pollán, M. Cutaneous melanoma in Swedish women: occupational risks by anatomic site. *Am J Ind Med.* 2005; 48(4):270-281. Available from: https://www.researchgate.net/profile/Beatriz_Perez-Gomez/publication/227715301_Cutaneous_melanoma_in_Swedish_women_Occupational_risks_by_anatomic_site/links/0deec519b27246a598000000.pdf. Accessed March 2019.
[779] Richardson GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.
[780] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6):1519-1531. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/10807030390251010. Accessed March 2019.
[781] Rojas M, Seijas D, Agreda O, Rodríguez M. Biological monitoring of mercury exposure in individuals referred to a toxicological center in Venezuela. *Sci Total Environ.* 2006; 354(2):278-285. Available from: https://www.researchgate.net/profile/David_Seijas/publication/7372790_Biological_monitoring_of_mercury_exposure_in_individuals_referred_to_a_toxicological_center_in_Venezuela/links/0c9605253f5d25bbe9000000.pdf. Accessed March 2019.

[782] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[783] Shapiro IM, Cornblath DR, Sumner AJ, Sptiz LK, Uzzell B, Ship II, Bloch P. Neurophysiological and neuropsychological function in mercury-exposed dentists. *Lancet.* 1982; 319(8282):1447-1150. Available from: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(82)92226-7/abstract?cc=y=. Accessed March 2019.
[784] Sikorski R, Juszkiewicz T, Paszkowski T, Szprengier-Juszkiewicz T. Women in dental surgeries: reproductive hazards in exposure to metallic mercury. *International Archives of Occupational and Environmental Health.* 1987; 59(6):551-557. Abstract available from: http://link.springer.com/article/10.1007/BF00377918. Accessed March 2019.
[785] Uzzell BP, Oler J. Chronic low-level mercury exposure and neuropsychological functioning. *J Clin Exp Neuropsychol*. 1986; 8(5):581-593. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/01688638608405177. Accessed March 2019.
[786] Votaw AL, Zey J. Vacuuming a mercury-contaminated dental office may be hazardous to your health. *The Dental Assistant*. 1990; 60(1):27-9. Abstract available from: http://europepmc.org/abstract/med/1860523. Accessed March 2019.
[787] Warwick D, Young M, Palmer J, Ermel RW. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill–a significant source of exposure. *Journal of Occupational Medicine and Toxicology*. 2019 Dec;14(1):22. Available from: https://occup-med.biomedcentral.com/track/pdf/10.1186/s12995-019-0240-2. Accessed July 22, 2019.
[788] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.
[789] Wasylko L, Matsui D, Dykxhoorn SM, Rieder MJ, Weinberg S. A review of common dental treatments during pregnancy: implications for patients and dental personnel. *J Can Dent Assoc*. 1998; 64(6):434-9. Abstract available from: http://europepmc.org/abstract/med/9659813. Accessed March 2019.
[790] White RR, Brandt RL. Development of mercury hypersensitivity among dental students. *JADA.* 1976; 92(6):1204-7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817776260320. Accessed March 2019.
[791] Zahir F, Rizwi SJ, Haq SK, Khan RH. Low dose mercury toxicity and human health. *Environ Toxicol Pharmacol.* 2005; 20(2):351-360. Available from: https://www.researchgate.net/profile/Soghra_Haq/publication/51515936_Low_dose_mercury_toxicity_and_human_health/links/00b7d51bd5115b6ba9000000.pdf. Accessed March 2019.
[792] Gelbier S, Ingram J. Possible fetotoxic effects of mercury vapor: a case report. *Public Health.* 1989; 103(1):35-40. Available from: http://www.sciencedirect.com/science/article/pii/S0033350689801003. Accessed March 2019.
[793] El-Badry A, Rezk M, El-Sayed H. Mercury-induced oxidative stress may adversely affect pregnancy outcome among dental staff: a cohort study. The International Journal of Occupational and Environmental Medicine. 2018; 9(3 July):1181-3. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/1181/985. Accessed March 2019.
[794] Lindbohm ML, Ylöstalo P, Sallmén M, Henriks-Eckerman ML, Nurminen T, Forss H, Taskinen H. Occupational exposure in dentistry and miscarriage. Occupational and environmental medicine. 2007; 64(2):127-33. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2078431/. Accessed March 2019.
[795] Olfert, SM. Reproductive outcomes among dental personnel: a review of selected exposures. Journal (Canadian Dental Association). 2006; 72(9), 821. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/17109802. Accessed March 2019.
[796] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[797] Sikorski R, Juszkiewicz T, Paszkowski T, Szprengier-Juszkiewicz T. Women in dental surgeries: reproductive hazards in exposure to metallic mercury. *International Archives of Occupational and Environmental Health.* 1987; 59(6):551-557. Abstract available from: http://link.springer.com/article/10.1007/BF00377918. Accessed March 2019.
[798] Wasylko L, Matsui D, Dykxhoorn SM, Rieder MJ, Weinberg S. A review of common dental treatments during pregnancy: implications for patients and dental personnel. *J Can Dent Assoc*. 1998; 64(6):434-9. Abstract available from: http://europepmc.org/abstract/med/9659813. Accessed March 2019.
[799] Barregård L. Biological monitoring of exposure to mercury vapor. *Scandinavian Journal of Work, Environment & Health*. 1993:45-9. Available from: http://www.sjweh.fi/download.php?abstract_id=1532&%3Bfile_nro=1&origin=publication_detail. Accessed March 2019.
[800] Fredin B. Mercury release from dental amalgam fillings. *Int J Risk Saf Med.* 1994; 4(3): 197-208. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/23511257. Accessed March 2019.
[801] Gay DD, Cox RD, Reinhardt JW: Chewing releases mercury from fillings. *Lancet.* 1979; 1(8123):985-6.
[802] Goldschmidt PR, Cogan RB, Taubman SB. Effects of amalgam corrosion products on human cells. *J Period Res*. 1976; 11(2):108-15. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0765.1976.tb00058.x/abstract. Accessed March 2019.

[803] Hahn LJ, Kloiber R, Vimy MJ, Takahashi Y, Lorscheider FL. Dental" silver" tooth fillings: a source of mercury exposure revealed by whole-body image scan and tissue analysis. *The FASEB Journal*. 1989; 3(14):2641-6. Available from: http://www.fasebj.org/content/3/14/2641.full.pdf. Accessed March 2019.
[804] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas*. 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.
[805] Hanson M, Pleva J. The dental amalgam issue. A review. *Experientia*. 1991; 47(1):9-22. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/21157262_The_dental_amalgam_issue._A_review/links/00b7d513fabdda29fa000000.pdf. Accessed March 2019.
[806] Krausß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry*. 1997; 63(1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515. Accessed March 2019.
[807] Leistevuo J, Leistevuo T, Helenius H, Pyy L, Osterblad M, Huovinen P, Tenovuo J. Dental amalgam fillings and the amount of organic mercury in human saliva. *Caries Res*. 2001; 35(3):163-6. Abstract available from: http://www.karger.com/Article/Abstract/47450. Accessed March 2019.
[808] Lönnroth EC, Shahnavaz H. Amalgam in dentistry. A survey of methods used at dental clinics in Norrbotten to decrease exposure to mercury vapour. *Swed Dent J*. 1995; 19(1-2): 55. Abstract available from: http://europepmc.org/abstract/med/7597632. Accessed March 2019.
[809] Mahler DB, Adey JD, Fleming MA. Hg emission from dental amalgam as related to the amount of Sn in the Ag-Hg Phase. *J Dent Res*. 1994; 73(10):1663-8. Abstract available from: http://jdr.sagepub.com/content/73/10/1663.short. Accessed March 2019.
[810] Molin M, Bergman B, Marklund SL, Schutz A, Skerfving S. Mercury, selenium, and glutathione peroxidase before and after amalgam removal in man. *Acta Odontol Scand*. 1990; 48(3): 189-202. Abstract available from: http://www.tandfonline.com/doi/abs/10.3109/00016359009005875?journalCode=iode20. Accessed March 2019.
[811] Mortada WL, Sobh MA, El-Defrawi, MM, Farahat SE. Mercury in dental restoration: is there a risk of nephrotoxity? *J Nephrol*. 2002; 15(2): 171-176. Abstract available from: http://europepmc.org/abstract/med/12018634. Accessed March 2019.
[812] Mutter J. Is dental amalgam safe for humans? The opinion of the scientific committee of the European Commission. *Journal of Occupational Medicine and Toxicology*. 2011; 6:2. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025977/. Accessed March 2019.
[813] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent*. 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.
[814] Nylander M, Friberg L, Lind B. Mercury concentrations in the human brain and kidneys in relation to exposure from dental amalgam fillings. *Swed Dent J*. 1987; 11(5): 179-187. Abstract available from: http://europepmc.org/abstract/med/3481133. Accessed March 2019.
[815] Redhe O, Pleva J. Recovery of amyotrophic lateral sclerosis and from allergy after removal of dental amalgam fillings. *Int J Risk & Safety in Med*. 1994; 4(3): 229-236. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/235899060_Recovery_from_amyotrophic_lateral_sclerosis_and_from_allergy_after_removal_of_dental_amalgam_fillings/links/0fcfd513f4c3e10807000000.pdf. Accessed March 2019.
[816] Reinhardt JW. Side-effects: Mercury contribution to body burden from dental amalgam. *Adv Dent Res*. 1992; 6(1):110-3. Abstract available from: http://adr.sagepub.com/content/6/1/110.short. Accessed March 2019.
[817] Richardson GM, Brecher RW, Scobie H, Hamblen J, Samuelian J, Smith C. Mercury vapour (Hg(0)): Continuing toxicological uncertainties, and establishing a Canadian reference exposure level. *Regul Toxicol Pharmicol*. 2009; 53(1):32-38. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0273230008002304. Accessed March 2019.
[818] Stock A. [Zeitschrift fuer angewandte Chemie, 29. Jahrgang, 15. April 1926, Nr. 15, S. 461-466, *Die Gefaehrlichkeit des Quecksilberdampfes*, von Alfred Stock (1926).] The Dangerousness of Mercury Vapor. Translated by Birgit Calhoun. Available from: http://www.stanford.edu/~bcalhoun/AStock.htm. Accessed March 2019.
[819] Vahter M, Akesson A, Lind B, Bjors U, Schutz A, Berglund M. Longitudinal study of methylmercury and inorganic mercury in blood and urine of pregnant and lactating women, as well as in umbilical cord blood. *Environ Res*. 2000; 84(2):186-94. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935100940982. Accessed March 2019.
[820] Vimy MJ, Lorscheider FL. Intra-oral air mercury released from dental amalgam. *J Den Res*. 1985; 64(8):1069-71. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/3860538. Accessed March 2019.
[821] Vimy MJ, Lorscheider FL: Serial measurements of intra-oral air mercury; Estimation of daily dose from dental amalgam. *J Dent Res*. 1985; 64(8):1072-5. Abstract available from: http://jdr.sagepub.com/content/64/8/1072.short. Accessed March 2019.
[822] Vimy MJ, Luft AJ, Lorscheider FL. Estimation of mercury body burden from dental amalgam computer simulation of a metabolic compartment model. *J. Dent. Res*. 1986; 65(12):1415-1419. Abstract available from: http://jdr.sagepub.com/content/65/12/1415.short. Accessed March 2019.
[823] Weiner JA, Nylander M, Berglund F. Does mercury from amalgam restorations constitute a health hazard? *Sci Total Environ*. 1990; 99(1-2):1-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/004896979090206A. Accessed March 2019.
[824] Zahir F, Rizwi SJ, Haq SK, Khan RH. Low dose mercury toxicity and human health. *Environ Toxicol Pharmacol*. 2005; 20(2): 351-360. Available from:

https://www.researchgate.net/profile/Soghra_Haq/publication/51515936_Low_dose_mercury_toxicity_and_human_health/links/00b7d51bd5115b6ba9000000.pdf. Accessed March 2019.

[825] Bergdahl IA, Ahlqwist M, Barregard L, Björkelund C, Blomstrand A, Skerfving S, Sundh V, Wennberg M, Lissner L. Mercury in serum predicts low risk of death and myocardial infarction in Gothenburg women. *Int Arch Occup Environ Health.* 2013; 86(1): 71-77. Abstract available from: http://link.springer.com/article/10.1007/s00420-012-0746-8. Accessed March 2019.

[826] Fakour H, Esmaili-Sari A. Occupational and environmental exposure to mercury among Iranian hairdressers. *Journal of Occupational Health.* 2014; 56(1):56-61. Abstract available from: https://www.jstage.jst.go.jp/article/joh/56/1/56_13-0008-OA/_article. Accessed March 2019.

[827] Geer LA, Persad MD, Palmer CD, Steuerwald AJ, Dalloul M, Abulafia O, Parsons PJ. Assessment of prenatal mercury exposure in a predominately Caribbean immigrant community in Brooklyn, NY. *J Environ Monit.* 2012; 14(3):1035-1043. Available from: https://www.researchgate.net/profile/Laura_Geer/publication/221832284_Assessment_of_prenatal_mercury_exposure_in_a_predominately_Caribbean_immigrant_community_in_Brooklyn_NY/links/540c89680cf2df04e754718a.pdf. Accessed March 2019.

[828] Geier DA, Kern JK, Geier MR. A prospective study of prenatal mercury exposure from dental amalgams and autism severity. *Neurobiolgiae Experimentals Polish Neuroscience Society.* 2009; 69(2): 189-197. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/19593333. Accessed March 2019.

[829] Gibicar D, Horvat M, Logar M, Fajon V, Falnoga I, Ferrara R, Lanzillotta E, Ceccarini C, Mazzolai B, Denby B, Pacyna J. Human exposure to mercury in the vicinity of chlor-alkali plant. *Environ Res.* 2009; 109(4): 355-367. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935109000188. Accessed March 2019.

[830] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. Environmental Science and Pollution Research. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.

[831] Krausß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry.* 1997; 63, (1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515#.VnM7_PkrIgs. Accessed March 2019.

[832] Pesch A, Wilhelm M, Rostek U, Schmitz N, Weishoff-Houben M, Ranft U, et al. Mercury concentrations in urine, scalp hair, and saliva in children from Germany. *J Expo Anal Environ Epidemiol*. 2002; 12(4):252–8. Abstract available from: http://europepmc.org/abstract/med/12087431. Accessed March 2019.

[833] Rothwell JA, Boyd PJ. Amalgam fillings and hearing loss. *International Journal of Audiology.* 2008; 47(12): 770-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/14992020802311224. Accessed March 2019.

[834] Akerstrom M, Barregard L, Lundh T, Sallsten G. Relationship between mercury in kidney, blood, and urine in environmentally exposed individuals, and implications for biomonitoring. *Toxicology and Applied Pharmacology*. 2017; 320:17-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0041008X17300637. Accessed March 2019.

[835] Baek HJ, Kim EK, Lee SG, Jeong SH, Sakong J, Merchant AT, Im SU, Song KB, Choi YH. Dental amalgam exposure can elevate urinary mercury concentrations in children. *International Dental Journal*. 2016; 66(3):136-43. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/idj.12214. Accessed March 2019.

[836] Barregard L, Fabricius-Lagging E, Lundh T, Molne J, Wallin M, Olausson M, Modigh C, Sallsten G. Cadmium, mercury, and lead in kidney cortex of living kidney donors: impact of different exposure sources. *Environ Res.* 2010; 110(1): 47-54. Available from: https://www.researchgate.net/profile/Johan_Moelne/publication/40024474_Cadmium_mercury_and_lead_in_kidney_cortex_of_living_kidney_donors_Impact_of_different_exposure_sources/links/0c9605294e28e1f04d000000.pdf. Accessed March 2019.

[837] Dutton DJ, Fyie K, Faris P, Brunel L, Emery JH. The association between amalgam dental surfaces and urinary mercury levels in a sample of Albertans, a prevalence study. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):22. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-22. Accessed March 2019.

[838] Dye BA, Schober SE, Dillon CF, Jones RL, Fryar C, McDowell M, et al. Urinary mercury concentrations associated with dental restorations in adult women aged 16–49 years: United States, 1999–2000. *Occup Environ Med.* 2005; 62(6):368–75. Abstract available from: http://oem.bmj.com/content/62/6/368.short. Accessed March 2019.

[839] Eggleston DW, Nylander M. Correlation of dental amalgam with mercury in brain tissue. *J Prosthet Dent.* 1987; 58(6): 704-707. Abstract available from: http://www.sciencedirect.com/science/article/pii/0022391387904240. Accessed March 2019.

[840] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. Environmental Science and Pollution Research. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.

[841] McGrother CW, Dugmore C, Phillips MJ, Raymond NT, Garrick P, Baird WO. Epidemiology: Multiple sclerosis, dental caries and fillings: a case-control study. *Br Dent J.* 1999; 187(5): 261-264. Available from: http://www.nature.com/bdj/journal/v187/n5/full/4800255a.html. Accessed March 2019.

[842] Pesch A, Wilhelm M, Rostek U, Schmitz N, Weishoff-Houben M, Ranft U, et al. Mercury concentrations in urine, scalp hair, and saliva in children from Germany. *J Expo Anal Environ Epidemiol*. 2002; 12(4):252–8. Abstract available from: http://europepmc.org/abstract/med/12087431. Accessed March 2019.

[843] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Sci Total Environ.* 2011; 409(20):4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.
[844] Rothwell JA, Boyd PJ. Amalgam fillings and hearing loss. *International Journal of Audiology*. 2008; 47(12): 770-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/14992020802311224. Accessed March 2019.
[845] Yin L, Yu K, Lin S, Song X, Yu X. Associations of blood mercury, inorganic mercury, methyl mercury and bisphenol A with dental surface restorations in the US population, NHANES 2003–2004 and 2010–2012. *Ecotoxicology and Environmental Safety*. 2016; 134:213-25. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0147651316303475. Accessed March 2019.
[846] Bahari, M., Oskoee, P.A., Oskoee, S.S., Pouralibaba, F. and Ahari, A.M. Mercury release of amalgams with various silver contents after exposure to bleaching agent. *Journal of Dental Research, Dental Clinics, Dental Prospects.* 2016; 10(2): 118-123. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4946001/. Accessed March 2019.
[847] Bengtsson UG, Hylander LD. Increased mercury emissions from modern dental amalgams. *BioMetals*. 2017; 30(2):277-83. Available from: https://link.springer.com/article/10.1007/s10534-017-0004-3. Accessed March 2019.
[848] Abraham JE, Svare CW, Frank CW. The effect of dental amalgam restorations on blood mercury levels. *J Dent Res*. 1984; 63(1):71-3. Abstract available from: http://jdr.sagepub.com/content/63/1/71.short. Accessed March 2019.
[849] Björkman L, Lind B. Factors influencing mercury evaporation rate from dental amalgam fillings. *Scand J Dent Res.* 1992; 100(6):354–60. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1992.tb01086.x/abstract. Accessed March 2019.
[850] Dunn JE, Trachtenberg FL, Barregard L, Bellinger D, McKinlay S. Scalp hair and urine mercury content of children in the Northeast United States: the New England Children's Amalgam Trial. *Environmental Research*. 2008; 107(1):79-88. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464356/. Accessed March 2019.
[851] Fredin B. Mercury release from dental amalgam fillings. *Int J Risk Saf Med.* 1994; 4(3): 197-208. Abstract available from: http://europepmc.org/abstract/med/23511257. Accessed March 2019.
[852] Gay DD, Cox RD, Reinhardt JW. Chewing releases mercury from fillings. *Lancet.* 1979; 313(8123):985-6.
[853] Health Canada. *The Safety of Dental Amalgam.* 1996: 4. Available from Health Canada Web site: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/md-im/dent_amalgam-eng.pdf. Accessed March 2019.
[854] Isacsson G, Barregård L, Seldén A, Bodin L. Impact of nocturnal bruxism on mercury uptake from dental amalgams. *European Journal of Oral Sciences.* 1997; 105(3):251-7. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1997.tb00208.x/abstract. Accessed March 2019.
[855] Karahalil B, Rahravi H, Ertas N. Examination of urinary mercury levels in dentists in Turkey. *Hum Exp Toxicol.* 2005; 24(8):383-388. Abstract available from: http://het.sagepub.com/content/24/8/383.short. Accessed March 2019.
[856] Krauß P, Deyhle M, Maier KH, Roller E, Weiß HD, Clédon P. Field study on the mercury content of saliva. *Toxicological & Environmental Chemistry.* 1997; 63(1-4):29-46. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/02772249709358515#.VnnujPkrIgs. Accessed March 2019.
[857] Lönnroth EC, Shahnavaz H. Dental clinics--a burden to environment? *Swed Dent J.* 1996; 20(5):173. Abstract available from: http://europepmc.org/abstract/med/9000326. Accessed March 2019.
[858] Martin MD, Naleway C, Chou HN. Factors contributing to mercury exposure in dentists. *J Am Dent Assoc*. 1995; 126(11):1502-1511. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817715607851. Accessed March 2019.
[859] Nimmo A, Werley MS, Martin JS, Tansy MF. Particulate inhalation during the removal of amalgam restorations. *J Prosth Dent.* 1990; 63(2):228-33. Abstract available from: http://www.sciencedirect.com/science/article/pii/002239139090110X. Accessed March 2019.
[860] Oliveira MT, Constantino HV, Molina GO, Milioli E, Ghizoni JS, Pereira JR. Evaluation of mercury contamination in patients and water during amalgam removal. *The Journal of Contemporary Dental Practice*. 2014; 15(2):165. Abstract available from: https://europepmc.org/abstract/med/25095837. Accessed March 2019.
[861] Richardson GM. Inhalation of mercury-contaminated particulate matter by dentists: an overlooked occupational risk. *Human and Ecological Risk Assessment.* 2003; 9(6): 1519-1531. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/10807030390251010. Accessed March 2019.
[862] Sällsten G, Thoren J, Barregård L, Schütz A, Skarping G. Long-term use of nicotine chewing gum and mercury exposure from dental amalgam fillings. *Journal of Dental Research*. 1996; 75(1):594-8. Abstract available from: http://jdr.sagepub.com/content/75/1/594.short. Accessed March 2019.
[863] Sandborgh-Englund G, Elinder CG, Langworth S, Schutz A, Ekstrand J. Mercury in biological fluids after amalgam removal. *J Dent Res.* 1998; 77(4):615-24. Abstract available from: https://www.researchgate.net/profile/Gunilla_Sandborgh-Englund/publication/51331635_Mercury_in_biological_fluids_after_amalgam_removal/links/0fcfd50d1ea80e1d3a000000.pdf. Accessed March 2019.
[864] Svare CW, Peterson LC, Reinhardt JW, Boyer DB, Frank CW, Gay DD, et al. The effect of dental amalgams on mercury levels in expired air. *J Dent Res*. 1981; 60:1668–71. Abstract available from: http://jdr.sagepub.com/content/60/9/1668.short. Accessed March 2019.
[865] Vimy MJ, Lorscheider FL. Clinical Science Intra-oral Air Mercury Released from Dental Amalgam. *Journal of Dental Research.* 1985; 64(8):1069-71. Abstract available from: http://jdr.sagepub.com/content/64/8/1069.short. Accessed March 2019.

[866] Vimy MJ, Lorscheider FL. Serial measurements of intra-oral air mercury: estimation of daily dose from dental amalgam. *Journal of Dental Research*. 1985; 64(8):1072-5. Abstract available from: http://jdr.sagepub.com/content/64/8/1072.short. Accessed March 2019.
[867] Warwick R, O Connor A, Lamey B. Mercury vapour exposure during dental student training in amalgam removal. *Journal of Occupational Medicine and Toxicology*. 2013; 8(1):27. 2015. Available from: https://occup-med.biomedcentral.com/articles/10.1186/1745-6673-8-27. Accessed March 2019.
[868] Echeverria D, Woods JS, Heyer NJ, Rohlman D, Farin FM, Li T, Garabedian CE. The association between a genetic polymorphism of coproporphyrinogen oxidase, dental mercury exposure and neurobehavioral response in humans. *Neurotoxicology and Teratology*. 2006; 28(1):39-48. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001492. Accessed March 2019.
[869] Parajuli RP, Goodrich JM, Chou HN, Gruninger SE, Dolinoy DC, Franzblau A, Basu N. Genetic polymorphisms are associated with hair, blood, and urine mercury levels in the American Dental Association (ADA) study participants. *Environmental Research*. 2015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935115301602. Accessed March 2019.
[870] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol.* 2012; 34(5):513-21. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[871] Godfrey ME, Wojcik DP, Krone CA. Apolipoprotein E genotyping as a potential biomarker for mercury neurotoxicity. *J Alzheimers Dis.* 2003; 5(3):189-195. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/12897404. Accessed March 2019.
[872] Haley BE. The relationship of the toxic effects of mercury to exacerbation of the medical condition classified as Alzheimer's disease. *Medical Veritas.* 2007; 4(2):1510–1524. Abstract available from: http://www.medicalveritas.com/images/00161.pdf. Accessed March 2019.
[873] Mutter J, Naumann J, Sadaghiani C, Schneider R, Walach H. Alzheimer disease: mercury as pathogenetic factor and apolipoprotein E as a moderator. *Neuro Endocrinol Lett.* 2004; 25(5): 331-339. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/15580166. Accessed March 2019.
[874] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett*. 2006; 27(4):415-423. Available from: http://europepmc.org/abstract/med/16891999. Accessed March 2019.
[875] Echeverria D, Woods JS, Heyer NJ, Rohlman DS, Farin FM, Bittner AC, Li T, Garabedian C. Chronic low-level mercury exposure, BDNF polymorphism, and associations with cognitive and motor function. *Neurotoxicology and Teratology*. 2005; 27(6):781-796. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0892036205001285. Accessed March 2019.
[876] Heyer NJ, Echeverria D, Bittner AC, Farin FM, Garabedian CC, Woods JS. Chronic low-level mercury exposure, BDNF polymorphism, and associations with self-reported symptoms and mood. Toxicological Sciences. 2004; 81(2):354-63. Available from: http://toxsci.oxfordjournals.org/content/81/2/354.long. Accessed March 2019.
[877] Parajuli RP, Goodrich JM, Chou HN, Gruninger SE, Dolinoy DC, Franzblau A, Basu N. Genetic polymorphisms are associated with hair, blood, and urine mercury levels in the American Dental Association (ADA) study participants. *Environmental Research*. 2015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935115301602. Accessed March 2019.
[878] Homme KG, Kern JK, Haley BE, Geier DA, King PG, Sykes LK, Geier MR. New science challenges old notion that mercury dental amalgam is safe. *BioMetals.* 2014; 27(1); 19-24. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3905169/. Accessed March 2019.
[879] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol*. 2012; 34(5):513-21. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[880] Parajuli RP, Goodrich JM, Chou HN, Gruninger SE, Dolinoy DC, Franzblau A, Basu N. Genetic polymorphisms are associated with hair, blood, and urine mercury levels in the American Dental Association (ADA) study participants. *Environmental Research*. 2015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935115301602. Accessed March 2019.
[881] Woods JS, Heyer NJ, Russo JE, Martin MD, Pillai PB, Farin FM. Modification of neurobehavioral effects of mercury by genetic polymorphisms of metallothionein in children. *Neurotoxicology and Teratology*. 2013; 39:36-44. Available from: http://europepmc.org/articles/pmc3795926. Accessed March 2019.
[882] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol*. 2012; 34(5):513-21. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[883] Austin DW, Spolding B, Gondalia S, Shandley K, Palombo EA, Knowles S, Walder K. Genetic variation associated with hypersensitivity to mercury. *Toxicology International.* 2014; 21(3):236. Abstract available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4413404/. Accessed March 2019.
[884] Cardenas A, Rifas-Shiman SL, Agha G, Hivert MF, Litonjua AA, DeMeo DL, Lin X, Amarasiriwardena CJ, Oken E, Gillman MW, Baccarelli AA. Persistent DNA methylation changes associated with prenatal mercury exposure and cognitive performance

during childhood. *Scientific Reports*. 2017; 7(1):288. Available from: https://www.nature.com/articles/s41598-017-00384-5. Accessed March 2019.
[885] Andreoli V, Sprovieri F. Genetic aspects of susceptibility to mercury toxicity: an overview. *International Journal of Environmental Research and Public Health*. 2017; 14(1):93. Available from: https://www.mdpi.com/1660-4601/14/1/93/pdf. Accessed on March 2019.
[886] Homme KG, Kern JK, Haley BE, Geier DA, King PG, Sykes LK, Geier MR. New science challenges old notion that mercury dental amalgam is safe. *BioMetals.* 2014; 27(1); 19-24. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3905169/. Accessed March 2019.
[887] Parajuli RP, Goodrich JM, Chou HN, Gruninger SE, Dolinoy DC, Franzblau A, Basu N. Genetic polymorphisms are associated with hair, blood, and urine mercury levels in the American Dental Association (ADA) study participants. *Environmental Research*. 2015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935115301602. Accessed March 2019.
[888] Bedir Findik R, Celik HT, Ersoy AO, Tasci Y, Moraloglu O, Karakaya J. Mercury concentration in maternal serum, cord blood, and placenta in patients with amalgam dental fillings: effects on fetal biometric measurements. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2016 ; 29(22):3665-9. Available from: https://www.researchgate.net/profile/Hueseyin_Celik/publication/295686928_Mercury_concentration_in_maternal_serum_cord_blood_and_placenta_in_patients_with_amalgam_dental_fillings_effects_on_fetal_biometric_measurements/links/5ac8859d4585151e80a57417/Mercury-concentration-in-maternal-serum-cord-blood-and-placenta-in-patients-with-amalgam-dental-fillings-effects-on-fetal-biometric-measurements.pdf. Accessed March 2019.
[889] Björnberg KA, Vahter M, Petersson-Grawe K, Glynn A, Cnattingius S, Darnerud PO, Atuma S, Aune M, Becker W, Berglund M. Methyl mercury and inorganic mercury in Swedish pregnant women and in cord blood: influence of fish consumption. *Environmental Health Perspectives*. 2003; 111(4):637–41. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241457/pdf/ehp0111-000637.pdf&sa=X&scisig=AAGBfm29zmnT2SVYZIpIJY1-xFZOaZbpMQ&oi=scholarr&ei=zFOKT7TVKJDa0QXU3cm3CQ&sqi=2&ved=0CCcQgAMoADAA. Accessed March 2019.
[890] Palkovicova L, Ursinyova M, Masanova V, Yu Z, Hertz-Picciotto I. Maternal amalgam dental fillings as the source of mercury exposure in developing fetus and newborn. *J Expo Sci Environ Epidemiol.* 2008; 18(3):326-331. Available from: http://www.nature.com/jes/journal/v18/n3/full/7500606a.html. Accessed March 2019.
[891] Ask K, Akesson A, Berglund M, Vahter M. Inorganic mercury and methylmercury in placentas of Swedish women. *Environ Health Perspect.* 2002; 110(5):523-6. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240842/pdf/ehp0110-000523.pdf. Accessed March 2019.
[892] Drasch G, Schupp I, Hofl H, Reinke R, Roider G. Mercury burden of human fetal and infant tissues. *Eur J Pediatr*. 1994; 153(8):607–10. Abstract available from: http://link.springer.com/article/10.1007/BF02190671. Accessed March 2019.
[893] Lutz E, Lind B, Herin P, Krakau I, Bui TH, Vahter M. Concentrations of mercury, cadmium and lead in brain and kidney of second trimester fetuses and infants. *J Trace Elem Med Biol*. 1996; 10(2):61–7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0946672X96800137. Accessed March 2019.
[894] Drasch G, Schupp I, Hofl H, Reinke R, Roider G. Mercury burden of human fetal and infant tissues. *Eur J Pediatr*. 1994; 153(8):607–10. Abstract available from: http://link.springer.com/article/10.1007/BF02190671. Accessed March 2019.
[895] Lindow SW, Knight R, Batty J, Haswell SJ. Maternal and neonatal hair mercury concentrations: the effect of dental amalgam. *Journal of Obstetrics and Gynecology*. 2003; 23(S1):S48-S49. Available from: https://www.researchgate.net/profile/Robert_Knight4/publication/10864434_Maternal_and_neonatal_hair_mercury_concentrations_the_effect_of_dental_amalgam/links/543fc3110cf21227a11b7820.pdf. Accessed March 2019.
[896] Razagui IB, Haswell SJ. Mercury and selenium concentrations in maternal and neonatal scalp hair. *Biological Trace Element Research*. 2001; 81(1):1-9. Abstract available from: https://link.springer.com/article/10.1385/BTER:81:1:01. Accessed March 2019.
[897] Drasch G, Schupp I, Hofl H, Reinke R, Roider G. Mercury burden of human fetal and infant tissues. *Eur J Pediatr*. 1994; 153(8):607–10. Abstract available from: http://link.springer.com/article/10.1007/BF02190671. Accessed March 2019.
[898] Drasch G, Schupp I, Hofl H, Reinke R, Roider G. Mercury burden of human fetal and infant tissues. *Eur J Pediatr*. 1994; 153(8):607–10. Abstract available from: http://link.springer.com/article/10.1007/BF02190671. Accessed March 2019.
[899] Björkman L, Lygre GB, Haug K, Skjærven R. Perinatal death and exposure to dental amalgam fillings during pregnancy in the population-based MoBa cohort. *PloS One*. 2018 ; 13(12):e0208803. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0208803. Accessed March 2019.
[900] Björnberg KA, Vahter M, Petersson-Grawe K, Glynn A, Cnattingius S, Darnerud PO, Atuma S, Aune M, Becker W, Berglund M. Methyl mercury and inorganic mercury in Swedish pregnant women and in cord blood: influence of fish consumption. *Environmental Health Perspectives*. 2003; 111(4):637–41. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241457/pdf/ehp0111-000637.pdf&sa=X&scisig=AAGBfm29zmnT2SVYZIpIJY1-xFZOaZbpMQ&oi=scholarr&ei=zFOKT7TVKJDa0QXU3cm3CQ&sqi=2&ved=0CCcQgAMoADAA. Accessed March 2019.
[901] da Costa SL, Malm O, Dorea JG. Breast-milk mercury concentrations and amalgam surface in mothers from Brasilia, Brasil. *Biol Trace Elem Res.* 2005; 106(2): 145–51. Abstract available from: http://link.springer.com/article/10.1385/BTER:106:2:145. Accessed March 2019.

[902] Oskarsson A, Schutz A, Schkerving S, Hallen IP, Ohlin B, Lagerkvist BJ. Total and inorganic mercury in breast milk in relation to fish consumption and amalgam in lactating women. *Arch Environ Health*. 1996; 51(3):234-51. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039896.1996.9936021. Accessed March 2019.
[903] Nourouzi E, Bahramifar N, Ghasempouri SM. Effect of teeth amalgam on mercury levels in the colostrums human milk in Lenjan. *Environ Monit Access.* 2012; 184(1): 375-380. Available from: https://www.researchgate.net/profile/Seyed_Mahmoud_Ghasempouri/publication/51052927_Effect_of_teeth_amalgam_on_mercury_levels_in_the_colostrums_human_milk_in_Lenjan/links/00463522eee955d586000000.pdf. Accessed March 2019.
[904] Bedir Findik R, Celik HT, Ersoy AO, Tasci Y, Moraloglu O, Karakaya J. Mercury concentration in maternal serum, cord blood, and placenta in patients with amalgam dental fillings: effects on fetal biometric measurements. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2016 ; 29(22):3665-9. Available from: https://www.researchgate.net/profile/Hueseyin_Celik/publication/295686928_Mercury_concentration_in_maternal_serum_cord_blood_and_placenta_in_patients_with_amalgam_dental_fillings_effects_on_fetal_biometric_measurements/links/5ac8859d4585151e80a57417/Mercury-concentration-in-maternal-serum-cord-blood-and-placenta-in-patients-with-amalgam-dental-fillings-effects-on-fetal-biometric-measurements.pdf. Accessed March 2019.
[905] Drexler H, Schaller KH. The mercury concentration in breast milk resulting from amalgam fillings and dietary habits. *Environmental Research*. 1998; 77(2):124-9. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935197938135. Accessed March 2019.
[906] El-Badry A, Rezk M, El-Sayed H. Mercury-induced oxidative stress may adversely affect pregnancy outcome among dental staff: a cohort study. *The International Journal of Occupational and Environmental Medicine*. 2018; 9(3 July):1181-3. Available from: http://www.theijoem.com/ijoem/index.php/ijoem/article/download/1181/985. Accessed March 2019.
[907] Gordon H. Pregnancy in Female Dentists: A Mercury Hazard. In *Proceedings of International Conference on Mercury Hazards in Dental Practice*. Glasgow, Scotland. 1981. pp. 2-4.
[908] Holmes, AS, Blaxill, MF, Haley, BE. Reduced levels of mercury in first baby haircuts of autistic children. *Int J Toxicol*. 2003. 22 (4): 277-85. Abstract available from: http://ijt.sagepub.com/content/22/4/277.short. Accessed March 2019.
[909] Khaled EM, Meguid NA, Bjørklund G, Gouda A, Bahary MH, Hashish A, Sallam NM, Chirumbolo S, El-Bana MA. Altered urinary porphyrins and mercury exposure as biomarkers for autism severity in Egyptian children with autism spectrum disorder. *Metabolic Brain Disease*. 2016; 31(6):1419-26. Available from: https://www.researchgate.net/profile/Nagwa_Meguid/publication/312976048_Altered_urinary_porphyrins_and_mercury_exposure_as_biomarkers_for_autism_severity_in_Egyptian_children_with_autism_spectrum_disorder/links/5a2a3b97a6fdccfbbf81bcaa/Altered-urinary-porphyrins-and-mercury-exposure-as-biomarkers-for-autism-severity-in-Egyptian-children-with-autism-spectrum-disorder.pdf. Accessed March 2019.
[910] Luglie PF, Campus G, Chessa G, Spano G, Capobianco G, Fadda GM, Dessole S. Effect of amalgam fillings on the mercury concentration in human amniotic fluid. *Archives of Gynecology and Obstetrics.* 2005; 271(2):138-42. Available from: https://www.researchgate.net/profile/Giampiero_Capobianco/publication/8948150_Effect_of_amalgam_fillings_on_the_mercury_concentration_in_human_amniotic_fluid/links/02bfe50e407dfd5bfe000000.pdf. Accessed March 2019.
[911] Panova Z, Dimitrov G. Ovarian function in women having professional contact with metallic mercury. *Akusherstvoi Ginekologiya*. 1974; 13(1):29-34.
[912] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[913] Ursinyova M, Masanova V, Palkovicova L, Wsolova L. The influence of mother's dental amalgam fillings on prenatal and postnatal exposure of children to mercury. *Epidemiology.* 2006 Nov; 17(6):S494-5. Available from: https://journals.lww.com/epidem/Fulltext/2006/11001/The_Influence_of_Mother_s_Dental_Amalgam_Fillings.1328.aspx. Accessed March 2019.
[914] Vahter M, Akesson A, Lind B, Bjors U, Schutz A, Berglund M. Longitudinal study of methylmercury and inorganic mercury in blood and urine of pregnant and lactating women, as well as in umbilical cord blood. *Environ Res*. 2000; 84(2):186-94. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0013935100940982. Accessed March 2019.
[915] Vimy MJ, Hooper DE, King WW, Lorscheider FL. Mercury from maternal "silver" tooth fillings in sheep and human breast milk. *Biological Trace Element Research*. 1997; 56(2): 143-152. Abstract available from: https://link.springer.com/article/10.1007/BF02785388. Accessed March 2019.
[916] Vimy MJ, Takahashi Y, Lorscheider FL. Maternal-fetal distribution of mercury (203 Hg) released from dental amalgam fillings. *American Physiology Society.* 1990; 258(4): R939-945. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/2331037. Accessed March 2019.
[917] Al-Saleh I, Al-Sedairi A. Mercury (Hg) burden in children: The impact of dental amalgam. *Sci Total Environ*. 2011; 409(16):3003-3015. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711004359. Accessed March 2019.
[918] Baek HJ, Kim EK, Lee SG, Jeong SH, Sakong J, Merchant AT, Im SU, Song KB, Choi YH. Dental amalgam exposure can elevate urinary mercury concentrations in children. *International Dental Journal*. 2016; 66(3):136-43. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/idj.12214. Accessed March 2019.
[919] Berlin M. Mercury in dental amalgam: a risk analysis. *SMDJ Seychelles Medical and Dental Journal, Special Issue.* 2004; 7(1): 154-158.

[920] Dunn JE, Trachtenberg FL, Barregard L, Bellinger D, McKinlay S. Scalp hair and urine mercury content of children in the northeast United States: the New England children's amalgam trial. *Environ Res.* 2008; 107(1):79–88. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464356/. Accessed March 2019.
[921] Geier DA, Carmody T, Kern JK, King PG, Geier MR. A dose-dependent relationship between mercury exposure from dental amalgams and urinary mercury levels: a further assessment of the Casa Pia Children's Dental Amalgam Trial. Human & Experimental Toxicology. 2012; 31(1):11-7. Abstract available from: http://het.sagepub.com/content/31/1/11.short. Accessed March 2019.
[922] Geier DA, Carmody T, Kern JK, King PG, Geier MR. A significant dose-dependent relationship between mercury exposure from dental amalgams and kidney integrity biomarkers A further assessment of the Casa Pia children's dental amalgam trial. *Human & Experimental Toxicology*. 2012; 32(4):434-440. Abstract available from: http://het.sagepub.com/content/early/2012/08/09/0960327112455671.abstract. Accessed March 2019.
[923] Geier DA, Carmody T, Kern JK, King PG, Geier MR. A significant relationship between mercury exposure from dental amalgams and urinary porphyrins: a further assessment of the Casa Pia children's dental amalgam trial. *Biometals.* 2011; 24, (2):215-224. Abstract available from: http://link.springer.com/article/10.1007/s10534-010-9387-0. Accessed March 2019.
[924] Geier DA, Kern JK, Geier MR. A prospective study of prenatal mercury exposure from dental amalgams and autism severity. *Neurobiolgiae Experimentals Polish Neuroscience Society.* 2009; 69(2): 189-197. Available from: http://www.ane.pl/linkout.php?pii=6921. Accessed March 2019.
[925] Guzzi G, Pigatto PD. Urinary mercury levels in children with amalgam fillings. *Environ Health Perspect*. 2008; 116(7):A286-7. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453182/. Accessed March 2019.
[926] Haley B. Response to the NIDCR funded Children's Amalgam Testing publications in the JAMA 2006. Available from the IAOMT Web site: https://iaomt.org/wp-content/uploads/CAT_Haley_scientific_critique.pdf. Accessed March 2019.
[927] Haley BE. Mercury toxicity: genetic susceptibility and synergistic effects. *Medical Veritas.* 2005; 2(2): 535-542. Available from: http://www.medicalveritas.com/images/00070.pdf. Accessed March 2019.
[928] Homme KG, Kern JK, Haley BE, Geier DA, King PG, Sykes LK, Geier MR. New science challenges old notion that mercury dental amalgam is safe. *BioMetals*. 2014; 27(1); 19-24. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3905169/. Accessed March 2019.
[929] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Science of the Total Environment.* 2011; 409(20): 4257-4268. Available from: https://www.researchgate.net/profile/Colleen_Purtill2/publication/51514541_Mercury_exposure_and_risks_from_dental_amalgam_in_the_US_population_post-2000/links/5ae0ed0d458515c60f65f2bd/Mercury-exposure-and-risks-from-dental-amalgam-in-the-US-population-post-2000.pdf. Accessed March 2019.
[930] Svare CW, Peterson LC, Reinhardt JW, Frank CW, Boyer DB. Dental amalgam: A potential source of mercury vapor exposure. *Journal of Dental Research*. 1980; 59(special issue A): 341. Abstract #293.
[931] Woods JS, Heyer NJ, Echeverria D, Russo JE, Martin MD, Bernardo MF, Luis HS, Vaz L, Farin FM. Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children. *Neurotoxicol Teratol*. 2012; 34(5):513-21. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462250/. Accessed March 2019.
[932] Woods JS, Heyer NJ, Russo JE, Martin MD, Pillai PB, Bammler TK, Farin FM. Genetic polymorphisms of catechol-O-methyltransferase modify the neurobehavioral effects of mercury in children. *Journal of Toxicology and Environmental Health*. 2014; Part A, 77(6): 293-312. Available from: http://www.tandfonline.com/doi/full/10.1080/15287394.2014.867210. Accessed March 2019.
[933] Woods JS, Heyer NJ, Russo JE, Martin MD, Pillai PB, Farin FM. Modification of neurobehavioral effects of mercury by genetic polymorphisms of metallothionein in children. *Neurotoxicology and Teratology*. 2013; 39:36-44. Available from: http://europepmc.org/articles/pmc3795926. Accessed March 2019.
[934] Woods JS, Martin MD, Leroux BG, DeRouen TA, Leitão JG, Bernardo MF, Luis HS, Simmonds PL, Kushleika JV, Huang Y. The contribution of dental amalgam to urinary mercury excretion in children. *Environmental Health Perspectives*. 2007; 115(10); 1527. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2022658/. Accessed March 2019.
[935] North American Contact Dermatitis Group. Epidemiology of contact Dermatitis in North America. *Arch Dermatol*. 1972; 108:537-40.
[936] Hosoki M, Nishigawa K. Dental metal allergy [book chapter]. *Contact Dermatitis.* [edited by Young Suck Ro, ISBN 978-953-307-577-8]. December 16, 2011. Page 91. Available from: http://cdn.intechopen.com/pdfs/25247/InTech-Dental_metal_allergy.pdf. Accessed March 2019.
[937] Kaplan M. Infections may trigger metal allergies. *Nature*. 2007 May 2. Available from Nature Web site: http://www.nature.com/news/2007/070430/full/news070430-6.html. Accessed March 2019.
[938] Khamaysi Z, Bergman R, Weltfriend S. Positive patch test reactions to allergens of the dental series and the relation to the clinical presentations. Contact Dermatitis. 2006 Oct;55(4):216-8. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0536.2006.00905.x. Accessed March 2019.
[939] Cited as Inoue M. The Status Quo of Metal Allergy and Measures Against it in Dentistry. *J.Jpn.Prosthodont.Soc.* 1993; (37): 1127-1138. In Hosoki M, Nishigawa K. Dental metal allergy [book chapter]. *Contact Dermatitis.* [edited by Young Suck Ro, ISBN 978-953-307-577-8]. December 16, 2011. Page 91. Available from: http://cdn.intechopen.com/pdfs/25247/InTech-Dental_metal_allergy.pdf . Accessed December 17, 2015.

[940] Athavale PN, Shum KW, Yeoman CM, Gawkrodger DJ. Oral lichenoid lesions and contact allergy to dental mercury and gold. *Contact Dermatitis.* 2003; 49(5): 264-265. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0105-1873.2003.0225g.x. Accessed March 2019.
[941] Djerassi E, Berova N. The possibilities of allergic reactions from silver amalgam restorations. *Internat Dent J*, 1969, 19(4):481-8, 1969. Abstract available from: https://europepmc.org/abstract/med/5262217. Accessed March 2019.
[942] Hougeir FG, Yiannias JA, Hinni ML, Hentz JG, el-Azhary RA. Oral metal contact allergy: a pilot study on the cause of oral squamous cell carcinoma. *Int J Dermatol.* 2006; 45(3): 265-271. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-4632.2004.02417.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[943] Kaaber S. Allergy to dental materials with special reference to the use of amalgam and polymethylmethacrylate. *Int Dent J.* 1990; 40(6): 359. Abstract available from: http://europepmc.org/abstract/med/2276834. Accessed March 2019.
[944] Lee JY, Yoo JM, Cho BK, Kim HO. Contact dermatitis in Korean dental technicians. *Contact Dermatitis.* 2001; 45(1), 13-16. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1034/j.1600-0536.2001.045001013.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[945] Stejskal J, Stejskal VD. The role of metals in autoimmunity and the link to neuroendocrinology. *Neuro Endocrinol Lett.* 1999; 20(6):351-366. Available from: http://www.melisa.org/pdf/neuroen.pdf. Accessed March 2019.
[946] Weber ME, Yiannias JA, Hougeir FG, Kyle A, Noble BN, Landry AM, Hinni ML. Intraoral metal contact allergy as a possible risk factor for oral squamous cell carcinoma. *Ann Otol Rhinol Laryngol.* 2012; 121(6):389-94. Abstract available from: http://aor.sagepub.com/content/121/6/389.short. Accessed March 2019.
[947] Adachia A, Horikawab T, Takashimac T, Ichihashib M. Mercury-induced nummular dermatitis. *Journal of the American Academy of Dermatology*. 2000; 43(2):383-5. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962200452746. Accessed March 2019.
[948] Ditrichova D, Kapralova S, Tichy M, Ticha V, Dobesova J, Justova E, Eber M, Pirek P. Oral lichenoid lesions and allergy to dental materials. *Biomedical Papers*. 2007; 151(2): 333-339. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/18345274. Accessed March 2019.
[949] Feuerman EJ. Recurrent contact dermatitis caused by mercury in amalgam dental fillings. *International Journal of Dermatology*. 1975; 14(9):657-60. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-4362.1975.tb00158.x. Accessed March 2019.
[950] Finne K, Goransson K, Winckler L. Oral lichen planus and contact allergy to mercury. *Int J Oral Surg*. 1982; 11(4):236-9. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978582800732. Accessed March 2019.
[951] Gönen ZB, Asan CY, Etöz O, Alkan A. Oral leukoplakia associated with amalgam restorations. *Journal of Oral Science*. 2016;58(3):445-8. Available from: https://www.jstage.jst.go.jp/article/josnusd/58/3/58_16-0071/_pdf. Accessed March 2019.
[952] Guttman-Yassky E, Weltfriend S, Bergman R. Resolution of orofacial granulomatosis with amalgam removal. *Journal of the European Academy of Dermatology and Venereology*. 2003; 17(3):344-7. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1468-3083.2003.00793.x. Accessed March 2019.
[953] Hybenova M, Hrda P, Prochazkova J, Stejskal V, Sterzl I. The role of environmental factors in autoimmune thyroiditis. *Neuroendocrinol. Lett*. 2010; 31:283-9. Available from: http://www.melisa.org/wp-content/uploads/2016/09/the-role-of-environmental-facotirs-and-autoimmune-throiditis-2.pdf. Accessed March 2019.
[954] Karatasli B, Karatasli G, Mete O, Erdem MA, Cankaya AB. Healing of oral lichenoid lesions following replacement of dental amalgam restorations with feldspathic ceramic inlay-onlay restorations: clinical results of a follow-up period varied from three months up to five years. *BioMed Research International*. 2018;2018. Available from: http://downloads.hindawi.com/journals/bmri/2018/7918781.pdf. Accessed March 2019.
[955] Koch P, Bahmer FA. Oral lesions and symptoms related to metals used in dental restorations: a clinical, allergological, and histologic study. *Journal of the American Academy of Dermatology*. 1999; 41(3):422-30. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962299701167. Accessed March 2019.
[956] Laeijendecker R, Dekker SK, Burger PM, Mulder PG, Van Joost T, Neumann MH. Oral lichen planus and allergy to dental amalgam restorations. *Archives of Dermatology*. 2004; 140(12):1434-8. Available from: https://jamanetwork.com/journals/jamadermatology/fullarticle/480908. Accessed March 2019.
[957] Laine J, Kalimo K, Forssell H, Happonen R. Resolution of oral lichenoid lesions after replacement of amalgam restorations in patients allergic to mercury compounds. *JAMA.* 1992; 267(21):2880. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2133.1992.tb08395.x/abstract. Accessed March 2019.
[958] Laine J, Konttinen YT, Beliaev N, Happonen RP. Immunocompetent cells in amalgam-associated oral lichenoid contact lesions. *Journal of Oral Pathology & Medicine*. 1999; 28(3):117-21. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0714.1999.tb02008.x. Accessed March 2019.
[959] Lind PO, Hurlen B, Lyberg T, Aas E. Amalgam-related oral lichenoid reaction. *Scand J Dent Res*. 1986; 94(5):448-51. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1986.tb01786.x/abstract. Accessed March 2019.
[960] Lundstrom, IM. Allergy and corrosion of dental materials in patients with oral lichen planus. *Int J Oral Surg*. 1984; 13(1):16. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978584800514. Accessed March 2019.
[961] Lynch M, Ryan A, Galvin S, Flint S, Healy CM, O'Rourke N, Lynch K, Rogers S, Collins P. Patch testing in oral lichenoid lesions of uncertain etiology. *Dermatitis*. 2015; 26(2):89-93. Available from: https://journals.lww.com/dermatitis/Fulltext/2015/03000/Patch_Testing_in_Oral_Lichenoid_Lesions_of.5.aspx?WT.mc_id=HPx

ADx20100319xMP&utm_source=TrendMD&utm_medium=cpc&utm_campaign=Dermatitis_TrendMD_0. Accessed March 2019.

[962] Pang BK, Freeman S. Oral lichenoid lesions caused by allergy to mercury in amalgam fillings. *Contact Dermatitis.* 1995; 33(6):423-7. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0536.1995.tb02079.x/abstract. Accessed March 2019.

[963] Pawar RR, Mattigatti SS, Mahaparale RR, Kamble AP. Lichenoid reaction associated with silver amalgam restoration in a Bombay blood group patient: a case report. Journal of Conservative Dentistry: JCD. 2016; 19(3):289. . Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872588/. Accessed March 2019.

[964] Pigatto PD, Minoia C, Ronchi A, Brambilla L, Ferrucci SM, Spadari F, Passoni M, Somalvico F, Bombeccari GP, Guzzi G. Allergological and toxicological aspects in a multiple chemical sensitivity cohort. Oxidative Medicine and Cellular Longevity. 2013. Available from: http://downloads.hindawi.com/journals/omcl/2013/356235.pdf. Accessed March 2019.

[965] Podzimek S, Prochazkova J, Buitasova L, Bartova J, Ulcova-Gallova Z, Mrklas L, Stejskal VD. Sensitization to inorganic mercury could be a risk factor for infertility. *Neuro Endocrinol Lett.* 2005; 26(4):277-282. Available from: http://www.melisa.org/pdf/Mercury-infertility.pdf. Accessed March 2019.

[966] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuro Endocrinol Lett.* 2004; 25(3):211-218. Available from: http://www.nel.edu/pdf_/25_3/NEL250304A07_Prochazkova_.pdf. Accessed March 2019.

[967] Sharma R, Handa S, De D, Radotra BD, Rattan V. Role of dental restoration materials in oral mucosal lichenoid lesions. Indian Journal of Dermatology, Venereology, and Leprology. 2015 ; 81(5):478. Available from: http://www.ijdvl.com/article.asp?issn=0378-6323;year=2015;volume=81;issue=5;spage=478;epage=484;aulast=Sharma. Accessed March 2019.

[968] Skoglund A. Value of epicutaneous patch testing in patients with oral, mucosal lesions of lichenoid character. European Journal of Oral Sciences. 1994;102(4):216-22. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1994.tb01183.x. Accessed March 2019.

[969] Skoglund A, Egelrud T. Hypersensitivity reactions to dental materials in patients with lichenoid oral mucosal lesions and in patients with burning mouth syndrome. European Journal of Oral Sciences. 1991; 99(4):320-8. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1991.tb01035.x. Accessed March 2019.

[970] Smart ER, Macleod RI, Lawrence CM. Resolution of lichen planus following removal of amalgam restorations in patients with proven allergy to mercury salts: a pilot study. British Dental Journal. 1995; 178(3):108. Abstract available from: https://www.nature.com/articles/4808663. Accessed March 2019.

[971] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. The Israel Medical Association Journal: IMAJ. 2014; 16(12):753-8. Available from: http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.

[972] Stejskal V, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinol Lett.* 1999; 20(5):289-298. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/11460087. Accessed March 2019.

[973] Stejskal V, Öckert K, Bjørklund G. Metal-induced inflammation triggers fibromyalgia in metal-allergic patients. *Neuroendocrinology Letters*. 2013; 34(6). Available from: http://www.melisa.org/wp-content/uploads/2013/04/Metal-induced-inflammation.pdf. Accessed March 2019.

[974] Stejskal VDM, Cederbrant K, Lindvall A, Forsbeck M. MELISA—an *in vitro* tool for the study of metal allergy. *Toxicology in vitro*. 1994; 8(5): 991-1000. Available from: http://www.melisa.org/pdf/MELISA-1994.pdf. Accessed March 2019.

[975] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuro Endocrinol Lett.* 1999; 20:221-228. Available from: http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.

[976] Sterzl I, Prochazkova J, Hrda P, Matucha P, Bartova J, Stejskal V. Removal of dental amalgam decreases anti-TPO and anti-Tg autoantibodies in patients with autoimmune thyroiditis. Neuroendocrinology Letters. 2006; 27:25-30. Available from: http://www.melisa.org/pdf/Sterzl_Am_2006.pdf. Accessed March 2019.

[977] Syed M, Chopra R, Sachdev V. Allergic reactions to dental materials-a systematic review. *Journal of Clinical and Diagnostic Research: JCDR.* 2015; 9(10):ZE04. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4625353/. Accessed March 2019.

[978] Tomka M, Machovkova A, Pelclova D, Petanova J, Arenbergerova M, Prochazkova J. Orofacial granulomatosis associated with hypersensitivity to dental amalgam. *Science Direct.* 2011; 112(3):335-341. Available from: https://www.researchgate.net/profile/Milan_Tomka/publication/51230248_Orofacial_granulomatosis_associated_with_hypersensitivity_to_dental_amalgam/links/02e7e5269407a8c6d6000000.pdf. Accessed March 2019.

[979] Venclikova Z, Benada O, Bartova J, Joska L, Mrklas L, Prochazkova J, Stejskal V, Podzimek S. In vivo effects of dental casting alloys. *Neuro Endocrinol Lett*. 2006; 27:61. Abstract available from: http://europepmc.org/abstract/med/16892010. Accessed March 2019.

[980] Wong L, Freeman S. Oral lichenoid lesions (OLL) and mercury in amalgam fillings. *Contact Dermatitis.* 2003; 48(2):74-79. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1034/j.1600-0536.2003.480204.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.

[981] Finne KAJ, Göransson K, Winckler L. Oral lichen planus and contact allergy to mercury. *International Journal of Oral Surgery*. 1982; 11(4):236-239. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978582800732. Accessed March 2019.
[982] White RR, Brandt RL. Development of mercury hypersensitivity among dental students. *JADA*. 1976; 92(6):1204-7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817776260320. Accessed March 2019.
[983] Stejskal V, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinol Lett.* 1999; 20(5): 289-298. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/11460087. Accessed March 2019.
[984] Prochazkova J, Sterzl I, Kucerkova H, Bartova J, Stejskal VDM. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters.* 2004; 25: 3. Available from: http://www.nel.edu/pdf_/25_3/NEL250304A07_Prochazkova_.pdf. Accessed March 2019.
[985] Zamm A. Dental mercury: a factor that aggravates and induces xenobiotic intolerance. *Journal of Orthomolecular Medicine*. 1991; (6)2. Available from: http://orthomolecular.org/library/jom/1991/pdf/1991-v06n02-p067.pdf. Accessed March 2019.
[986] Bjørklund G, Tinkov AA, Dadar M, Rahman MM, Chirumbolo S, Skalny AV, Skalnaya MG, Haley BE, Ajsuvakova OP, Aaseth J. Insights into the potential role of mercury in Alzheimer's disease. *Journal of Molecular Neuroscience*. 2019:1-23. Abstract available from: https://link.springer.com/article/10.1007/s12031-019-01274-3. Accessed March 2019.
[987] Cariccio VL, Samà A, Bramanti P, Mazzon E. Mercury involvement in neuronal damage and in neurodegenerative diseases. *Biological Trace Element Research*. 2018; 18:1-6. Abstract available from: https://link.springer.com/article/10.1007/s12011-018-1380-4. Accessed March 2019.
[988] Godfrey ME, Wojcik DP, Krone CA. Apolipoprotein E genotyping as a potential biomarker for mercury toxicity. *Journal of Alzheimer's Disease*. 2003; 5(3): 189-195. Abstract available at http://www.ncbi.nlm.nih.gov/pubmed/12897404. Accessed March 2019.
[989] Mutter J, Naumann J, Sadaghiani C, Schneider R, Walach H. Alzheimer disease: mercury as pathogenetic factor and apolipoprotein E as a moderator. *Neuro Endocrinol Lett.* 2004; 25(5): 331-339. Abstract available at http://www.ncbi.nlm.nih.gov/pubmed/15580166. Accessed March 2019.
[990] Sun YH, Nfor ON, Huang JY, Liaw YP. Association between dental amalgam fillings and Alzheimer's disease: a population-based cross-sectional study in Taiwan. *Alzheimer's Research & Therapy*. 2015; 7(1):1-6. Available from: http://link.springer.com/article/10.1186/s13195-015-0150-1/fulltext.html. Accessed March 2019.
[991] Redhe O, Pleva J. Recovery of amyotrophic lateral sclerosis and from allergy after removal of dental amalgam fillings. *Int J Risk & Safety in Med*. 1994; 4(3): 229-236. Available from: https://www.researchgate.net/profile/Jaro_Pleva/publication/235899060_Recovery_from_amyotrophic_lateral_sclerosis_and_from_allergy_after_removal_of_dental_amalgam_fillings/links/0fcfd513f4c3e10807000000.pdf. Accessed March 2019.
[992] Edlund C, Bjorkman L, Ekstrand J, Englund GS, Nord CE. Resistance of the normal human microflora to mercury and antimicrobials after exposure to mercury from dental amalgam fillings. *Clinical Infectious Diseases.* 1996; 22(6):944-50. Available from: http://cid.oxfordjournals.org/content/22/6/944.full.pdf. Accessed March 2019.
[993] Leistevuo J, Leistevuo T, Helenius H, Pyy L, Huovinen P, Tenovuo J. Mercury in saliva and the risk of exceeding limits for sewage in relation to exposure to amalgam fillings. *Archives of Environmental Health: An International Journal*. 2002; 57(4):366-70. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/00039890209601423. Accessed March 2019.
[994] Mutter J. Is dental amalgam safe for humans? The opinion of the scientific committee of the European Commission. *Journal of Occupational Medicine and Toxicology*. 2011; **6**:5. Available from: http://www.biomedcentral.com/content/pdf/1745-6673-6-2.pdf. Accessed March 2019.
[995] Summers AO, Wireman J, Vimy MJ, Lorscheider FL, Marshall B, Levy SB, Bennet S, Billard L. Mercury released from dental 'silver' fillings provokes an increase in mercury- and antibiotic- resistant bacteria in oral and intestinal flora of primates. *Antimicrob Agents and Chemother*. 1993; 37(4): 825-834. Available from http://aac.asm.org/content/37/4/825.full.pdf. Accessed March 2019.
[996] Geier DA, Kern JK, Geier MR. A prospective study of prenatal mercury exposure from dental amalgams and autism severity. *Neurobiolgiae Experimentals Polish Neuroscience Society.* 2009; 69(2): 189-197. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/19593333. Accessed March 2019.
[997] Geier DA, Kern JK, Geier MR. The biological basis of autism spectrum disorders: Understanding causation and treatment by clinical geneticists. *Acta Neurobiol Exp (Wars).* 2010; 70(2): 209-226. Available from: https://www.ane.pl/pdf/7025.pdf. Accessed March 2019.
[998] Khaled EM, Meguid NA, Bjørklund G, Gouda A, Bahary MH, Hashish A, Sallam NM, Chirumbolo S, El-Bana MA. Altered urinary porphyrins and mercury exposure as biomarkers for autism severity in Egyptian children with autism spectrum disorder. *Metabolic Brain Disease*. 2016; 31(6):1419-26. Available from: https://www.researchgate.net/profile/Nagwa_Meguid/publication/312976048_Altered_urinary_porphyrins_and_mercury_exposure_as_biomarkers_for_autism_severity_in_Egyptian_children_with_autism_spectrum_disorder/links/5a2a3b97a6fdccfbbf81bcaa/Altered-urinary-porphyrins-and-mercury-exposure-as-biomarkers-for-autism-severity-in-Egyptian-children-with-autism-spectrum-disorder.pdf. Accessed March 2019.
[999] Mutter J, Naumann J, Schneider R, Walach H, Haley B. Mercury and autism: accelerating evidence. *Neuro Endocrinol Lett*. 2005: 26(5): 439-446. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/16264412. Accessed March 2019.

[1000] Bartova J, Prochazkova J, Kratka Z, Benetkova K, Venclikova C, Sterzl I. Dental amalgam as one of the risk factors in autoimmune disease. *Neuro Endocrinol Lett.* 2003; 24(1-2): 65-67. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/12743535. Accessed March 2019.
[1001] Eggleston DW. Effect of dental amalgam and nickel alloys on T-lymphocytes: preliminary report. *J Prosthet Dent*. 1984; 51(5):617-23. Abstract available from: http://www.sciencedirect.com/science/article/pii/0022391384904049. Accessed March 2019.
[1002] Hultman P, Johansson U, Turley SJ, Lindh U, Enestrom S, Pollard KM. Adverse immunological effects and autoimmunity induced by dental amalgam and alloy in mice. *FASEB J*. 1994; 8(14):1183-90. Available from: http://www.fasebj.org/content/8/14/1183.full.pdf. Accessed March 2019.
[1003] Lindqvist B, Mörnstad H. Effects of removing amalgam fillings from patients with diseases affecting the immune system. *Medical Science Research*. 1996; 24(5):355-356.
[1004] Prochazkova J, Sterzl I, Kucerkova H, Bartova J, Stejskal VDM. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters.* 2004; 25(3): 211-218. Available from: http://www.nel.edu/pdf_/25_3/NEL250304A07_Prochazkova_.pdf. Accessed March 2019.
[1005] Rachmawati D, Buskermolen JK, Scheper RJ, Gibbs S, von Blomberg BM, van Hoogstraten IM. Dental metal-induced innate reactivity in keratinocytes. *Toxicology in Vitro*. 2015; 30(1):325-30. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0887233315002544. Accessed March 2019.
[1006] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuro Endocrinol Lett.* 1999; 20:221-228. Available from: http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[1007] Venclikova Z, Benada O, Bartova J, Joska L, Mrklas L, Prochazkova J, Stejskal V, Podzimek S. In vivo effects of dental casting alloys. *Neuro Endocrinol Lett*. 2006; 27:61. Abstract available from: http://europepmc.org/abstract/med/16892010. Accessed March 2019.
[1008] Weiner JA, Nylander M, Berglund F. Does mercury from amalgam restorations constitute a health hazard? *Sci Total Environ*. 1990; 99(1-2):1-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/004896979090206A. Accessed March 2019.
[1009] Bergdahl IA, Ahlqwist M, Barregard L, Björkelund C, Blomstrand A, Skerfving S, Sundh V, Wennberg M, Lissner L. Mercury in serum predicts low risk of death and myocardial infarction in Gothenburg women. *Int Arch Occup Environ Health.* 2013; 86(1): 71-77. Abstract available from: http://link.springer.com/article/10.1007/s00420-012-0746-8. Accessed March 2019.
[1010] Houston MC. Role of mercury toxicity in hypertension, cardiovascular disease, and stroke. *The Journal of Clinical Hypertension*. 2011; 13(8):621-7. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-7176.2011.00489.x/full. Accessed March 2019.
[1011] Siblerud RL. The relationship between mercury from dental amalgam and the cardiovascular system. *Science of the Total Environment.* 1990; 99(1-2): 23-35. Available from: http://www.sciencedirect.com/science/article/pii/004896979090207B. Accessed March 2019.
[1012] Björkman L, Sjursen TT, Dalen K, Lygre GB, Berge TL, Svahn J, Lundekvam BF. Long term changes in health complaints after removal of amalgam restorations. *Acta Odontologica Scandinavica*. 2017; 75(3):208-19. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/00016357.2016.1278262. Accessed March 2019.
[1013] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters*. 2002; 23(5-6):459. Available from: http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[1014] Kern JK, Geier DA, Bjørklund G, King PG, Homme KG, Haley BE, Sykes LK, Geier MR. Evidence supporting a link between dental amalgams and chronic illness, fatigue, depression, anxiety, and suicide. *Neuro Endocrinol Lett.* 2014; 35(7): 537-52. Available from: https://www.researchgate.net/profile/David_Geier/publication/271536688_Evidence_supporting_a_link_between_dental_amalgams_and_chronic_illness_fatigue_depression_anxiety_and_suicide/links/54d3b2a40cf246475802a640.pdf. Accessed March 2019.
[1015] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014; 16(12):753-8. Available from: http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[1016] Stejskal V, Danersund A, Lindvall A, Hudecek R, Nordman V, Yaqob A, Mayer W, Bieger W, Lindh U. Metal-specific lymphocytes: biomarkers of sensitivity in man. *Neuroendocrinol Lett.* 1999; 20(5): 289-298. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/11460087. Accessed March 2019.
[1017] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[1018] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett.* 2006; 27(4): 415-423. Abstract available from: http://europepmc.org/abstract/med/16891999. Accessed March 2019.

[1019] Yaqob A, Danersund A, Stejskal VD, Lindvall A, Hudecek R, Lindh U. Metal-specific lymphocyte reactivity is down-regulated after dental metal replacement. *Neuroendocrinology Letters.* 2006 Feb 1;27(1-2):189-97. Available from http://www.melisa.org/pdf/Yaqob_2006.pdf. Accessed March 2019.
[1020] Hanson M. Health and amalgam removal: a meta-analysis of 25 studies. *Tf-bladet Bull of the Swedish Association of Dental Mercury Patients.* Tf-bladet no. 2 2004 and SOU 2003:53 appendix 10, Sw. Dept. of Health: 204-216.
[1021] Hanson M, Pleva J. The dental amalgam issue: a review. *Experientia.* 1991; 47(1): 9-22. Available from: http://www.researchgate.net/profile/Jaro_Pleva/publication/21157262_The_dental_amalgam_issue._A_review/links/00b7d513fabdda29fa000000.pdf. Accessed March 2019.
[1022] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters.* 2002; 23(5-6):459. Available from: http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[1023] Pleva J. Mercury from dental amalgams: exposure and effects. *Int J Risk Saf Med.* 1992; 3(1): 1-22. Abstract available from: http://europepmc.org/abstract/med/23510804. Accessed March 2019.
[1024] Siblerud RL, Motl J, Kienholz E. Psychometric evidence that mercury from silver dental fillings may be an etiological factor in depression, excessive anger, and anxiety. *Psychol Rep.* 1994; 74(1): 67-80. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/8153237. Accessed March 2019.
[1025] Sjursen TT, Lygre GM, Dalen K, Helland V, Laegreid T, Svahn J, Lundekvam BF, Bjorkman L. Changes in health complaints after removal of amalgam fillings. *Journal of Oral Rehabilitation.* 2011; 38(11): 835-848. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2842.2011.02223.x/full. Accessed March 2019.
[1026] Zamm A. Dental mercury: a factor that aggravates and induces xenobiotic intolerance. *Journal of Orthomolecular Medicine.* 1991; (6)2. Available from: http://orthomolecular.org/library/jom/1991/pdf/1991-v06n02-p067.pdf. Accessed March 2019.
[1027] Adachia A, Horikawab T, Takashimac T, Ichihashib M. Mercury-induced nummular dermatitis. *Journal of the American Academy of Dermatology*. 2000; 43(2):383-5. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962200452746. Accessed March 2019.
[1028] Feuerman EJ. Recurrent contact dermatitis caused by mercury in amalgam dental fillings. *International Journal of Dermatology*. 1975; 14(9):657-60. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-4362.1975.tb00158.x. Accessed March 2019.
[1029] Bjørklund G, Dadar M, Aaseth J. Delayed-type hypersensitivity to metals in connective tissue diseases and fibromyalgia. *Environmental Research*. 2018;161:573-9. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0013935117317280. Accessed March 2019.
[1030] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014; 16(12):753-8. Available from: http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[1031] Stejskal V, Öckert K, Bjørklund G. Metal-induced inflammation triggers fibromyalgia in metal-allergic patients. *Neuroendocrinology Letters*. 2013 Jan 1;34(6):559-65. Available from http://www.melisa.org/wp-content/uploads/2013/04/Metal-induced-inflammation.pdf. Accessed March 2019.
[1032] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[1033] Björkman L, Sjursen TT, Dalen K, Lygre GB, Berge TL, Svahn J, Lundekvam BF. Long term changes in health complaints after removal of amalgam restorations. *Acta Odontologica Scandinavica*. 2017; 75(3):208-19. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/00016357.2016.1278262. Accessed March 2019.
[1034] Kristoffersen AE, Alræk T, Stub T, Hamre HJ, Björkman L, Musial F. Health complaints attributed to dental amalgam: a retrospective survey exploring perceived health changes related to amalgam removal. *The Open Dentistry Journal.* 2016;10:739. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5299553/. Accessed March 2019.
[1035] Stejskal V. Metals as a common trigger of inflammation resulting in non-specific symptoms: diagnosis and treatment. *The Israel Medical Association Journal: IMAJ*. 2014; 16(12):753-8. Available from: http://www.melisa.org/wp-content/uploads/2015/01/Metals-as-a-Common-Trigger-of-Inflammation.pdf. Accessed March 2019.
[1036] Rothwell JA, Boyd PJ. Amalgam fillings and hearing loss. *International Journal of Audiology.* 2008; 47(12): 770-776. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/14992020802311224#.VnH7tkorIgs. Accessed March 2019.
[1037] Barregard L, Fabricius-Lagging E, Lundh T, Molne J, Wallin M, Olausson M, Modigh C, Sallsten G. Cadmium, mercury, and lead in kidney cortex of living kidney donors: impact of different exposure sources. *Environ, Res.* Sweden, 2010; 110: 47-54. Available from: https://www.researchgate.net/profile/Johan_Moelne/publication/40024474_Cadmium_mercury_and_lead_in_kidney_cortex_of_living_kidney_donors_Impact_of_different_exposure_sources/links/0c9605294e28e1f04d000000.pdf. Accessed March 2019.
[1038] Boyd ND, Benediktsson H, Vimy MJ, Hooper DE, Lorscheider FL. Mercury from dental "silver" tooth fillings impairs sheep kidney function. *Am J Physiol*. 1991; 261(4 Pt 2):R1010-4. Abstract available from: http://ajpregu.physiology.org/content/261/4/R1010.short. Accessed March 2019.

[1039] Fredin B. The distribution of mercury in various tissues of guinea-pigs after application of dental amalgam fillings (a pilot study). *Sci Total Environ.* 1987; 66: 263-268. Abstract available from: http://www.sciencedirect.com/science/article/pii/0048969787900933. Accessed March 2019.
[1040] Mortada WL, Sobh MA, El-Defrawi, MM, Farahat SE. Mercury in dental restoration: is there a risk of nephrotoxity? *J Nephrol*. 2002; 15(2): 171-176. Abstract available from: http://europepmc.org/abstract/med/12018634. Accessed March 2019.
[1041] Nylander M., Friberg L, Lind B. Mercury concentrations in the human brain and kidneys in relation to exposure from dental amalgam fillings. *Swed Dent J*. 1987; 11(5): 179-187. Abstract available from: http://europepmc.org/abstract/med/3481133. Accessed March 2019.
[1042] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Sci Total Environ.* 2011; 409(20):4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.
[1043] Spencer AJ. Dental amalgam and mercury in dentistry. *Aust Dent J*. 2000; 45(4):224-34. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1834-7819.2000.tb00256.x/pdf. Accessed March 2019.
[1044] Weiner JA, Nylander M, Berglund F. Does mercury from amalgam restorations constitute a health hazard? *Sci Total Environ.* 1990; 99(1):1-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/004896979090206A. Accessed March 2019.
[1045] Ely JTA, Fudenberg HH, Muirhead RJ, LaMarche MG, Krone CA, Buscher D, Stern EA. Urine mercury in micormercurialism: bimodal distribution and diagnostic implications. *Bulletin of Environmental Contamination and Toxicology*. 1999; 63(5): 553-559. Abstract available from: https://link.springer.com/article/10.1007%2Fs001289901016?LI=true. Accessed March 2019.
[1046] Huggins HA, Levy TE. Cerebrospinal fluid protein changes in multiple sclerosis after dental amalgam removal. *Altern Med Rev*. 1998; 3(4): 295-300. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/9727079. Accessed March 2019.
[1047] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuro Endocrinol Lett*. 2004; 25(3):211-218. Available from: http://www.nel.edu/pdf_/25_3/NEL250304A07_Prochazkova_.pdf. Accessed March 2019.
[1048] Siblerud RL. A comparison of mental health of multiple sclerosis patients with silver/mercury dental fillings and those with fillings removed. *Psychol Rep*. 1992; 70(3c):1139-51. Abstract available from: https://journals.sagepub.com/doi/abs/10.2466/pr0.1992.70.3c.1139. Accessed March 2019.
[1049] Siblerud RL, Kienholz E. Evidence that mercury from silver dental fillings may be an etiological factor in multiple sclerosis. *The Science of the Total Environment*. 1994; 142(3): 191-205. Abstract available from: http://www.sciencedirect.com/science/article/pii/0048969794903271. Accessed March 2019.
[1050] Camisa C, Taylor JS, Bernat JR, Helm TN. Contact hypersensitivity to mercury in amalgam restorations may mimic oral lichen planus. *Cutis*. 1999; 63(3):189-92. Abstract available from: http://europepmc.org/abstract/med/10190076. Accessed March 2019.
[1051] Dunsche A, Kastel I, Terheyden H, Springer ING, Christopher E, Brasch J. Oral lichenoid reactions associated with amalgam: improvement after amalgam removal. *British Journal of Dermatology*. 2003; 148(1):70-76. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2133.2003.04936.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[1052] Gönen ZB, Asan CY, Etöz O, Alkan A. Oral leukoplakia associated with amalgam restorations. *Journal of Oral Science*. 2016;58(3):445-8. Available from: https://www.jstage.jst.go.jp/article/josnusd/58/3/58_16-0071/_pdf. Accessed March 2019.
[1053] Henriksson E, Mattsson U, Håkansson J. Healing of lichenoid reactions following removal of amalgam. A clinical follow-up. *J Clin Periodontol*. 1995; 22(4):287-94. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-051X.1995.tb00150.x/full. Accessed March 2019.
[1054] Ibbotson SH, Speight EL, Macleod RI, Smart ER, Lawrence CM. The relevance and effect of amalgam replacement in subjects with oral lichenoid reactions. *British Journal of Dermatology*. 1996; 134(3):420-423. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2133.1996.25760.x/abstract. Accessed March 2019.
[1055] Laine J, Kalimo K, Forssell H, Happonen R. Resolution of oral lichenoid lesions after replacement of amalgam restorations in patients allergic to mercury compounds. *JAMA*. 1992; 267(21):2880. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2133.1992.tb08395.x/abstract. Accessed March 2019.
[1056] Karatasli B, Karatasli G, Mete O, Erdem MA, Cankaya AB. Healing of oral lichenoid lesions following replacement of dental amalgam restorations with feldspathic ceramic inlay-onlay restorations: clinical results of a follow-up period varied from three months up to five years. *BioMed Research International*. 2018;2018. Available from: http://downloads.hindawi.com/journals/bmri/2018/7918781.pdf. Accessed March 2019.
[1057] Koch P, Bahmer FA. Oral lesions and symptoms related to metals used in dental restorations: a clinical, allergological, and histologic study. *Journal of the American Academy of Dermatology*. 1999; 41(3):422-30. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0190962299701167. Accessed March 2019.
[1058] Laine J, Konttinen YT, Beliaev N, Happonen RP. Immunocompetent cells in amalgam-associated oral lichenoid contact lesions. *Journal of Oral Pathology & Medicine*. 1999; 28(3):117-21. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0714.1999.tb02008.x. Accessed March 2019.
[1059] Lind PO, Hurlen B, Lyberg T, Aas E. Amalgam-related oral lichenoid reaction. *Scand J Dent Res*. 1986; 94(5):448-51. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1986.tb01786.x/abstract. Accessed March 2019.

[1060] Lynch M, Ryan A, Galvin S, Flint S, Healy CM, O'Rourke N, Lynch K, Rogers S, Collins P. Patch testing in oral lichenoid lesions of uncertain etiology. *Dermatitis*. 2015; 26(2):89-93. Available from: https://journals.lww.com/dermatitis/Fulltext/2015/03000/Patch_Testing_in_Oral_Lichenoid_Lesions_of.5.aspx?WT.mc_id=HPxADx20100319xMP&utm_source=TrendMD&utm_medium=cpc&utm_campaign=Dermatitis_TrendMD_0. Accessed March 2019.

[1061] Pawar RR, Mattigatti SS, Mahaparale RR, Kamble AP. Lichenoid reaction associated with silver amalgam restoration in a Bombay blood group patient: a case report. *Journal of Conservative Dentistry: JCD*. 2016; 19(3):289. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872588/. Accessed March 2019.

[1062] Sharma R, Handa S, De D, Radotra BD, Rattan V. Role of dental restoration materials in oral mucosal lichenoid lesions. *Indian Journal of Dermatology, Venereology, and Leprology*. 2015 ; 81(5):478. Available from: http://www.ijdvl.com/article.asp?issn=0378-6323;year=2015;volume=81;issue=5;spage=478;epage=484;aulast=Sharma. Accessed March 2019.

[1063] Skoglund A. Value of epicutaneous patch testing in patients with oral, mucosal lesions of lichenoid character. *European Journal of Oral Sciences*. 1994;102(4):216-22. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1994.tb01183.x. Accessed March 2019.

[1064] Skoglund A, Egelrud T. Hypersensitivity reactions to dental materials in patients with lichenoid oral mucosal lesions and in patients with burning mouth syndrome. *European Journal of Oral Sciences*. 1991; 99(4):320-8. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0722.1991.tb01035.x. Accessed March 2019.

[1065] Suter VG, Warnakulasuriya S. The role of patch testing in the management of oral lichenoid reactions. *Journal of Oral Pathology & Medicine*. 2016; 45(1):48-57. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/jop.12328. Accessed March 2019.

[1066] Wong L, Freeman S. Oral lichenoid lesions (OLL) and mercury in amalgam fillings. *Contact Dermatitis.* 2003; 48(2): 74-79. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1034/j.1600-0536.2003.480204.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.

[1067] Athavale PN, Shum KW, Yeoman CM, Gawkrodger DJ. Oral lichenoid lesions and contact allergy to dental mercury and gold. *Contact Dermatitis.* 2003; 49(5): 264-265. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.0105-1873.2003.0225g.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.

[1068] Finne K, Goransson K, Winckler L. Oral lichen planus and contact allergy to mercury. *Int J Oral Surg*. 1982; 11(4):236-9. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978582800732. Accessed March 2019.

[1069] Laeijendecker R, Dekker SK, Burger PM, Mulder PG, Van Joost T, Neumann MH. Oral lichen planus and allergy to dental amalgam restorations. *Archives of Dermatology*. 2004; 140(12):1434-8. Available from: https://jamanetwork.com/journals/jamadermatology/fullarticle/480908. Accessed March 2019.

[1070] Lundstrom, IM. Allergy and corrosion of dental materials in patients with oral lichen planus. *Int J Oral Surg*. 1984; 13(1):16. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0300978584800514. Accessed March 2019.

[1071] Smart ER, Macleod RI, Lawrence CM. Resolution of lichen planus following removal of amalgam restorations in patients with proven allergy to mercury salts: a pilot study. *British Dental Journal*. 1995; 178(3):108. Abstract available from: https://www.nature.com/articles/4808663. Accessed March 2019.

[1072] Guttman-Yassky E, Weltfriend S, Bergman R. Resolution of orofacial granulomatosis with amalgam removal. *Journal of the European Academy of Dermatology and Venereology*. 2003; 17(3):344-7. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1468-3083.2003.00793.x. Accessed March 2019.

[1073] Tomka M, Machovcová A, Pelclová D, Petanová J, Arenbergerová M, Procházková J. Orofacial granulomatosis associated with hypersensitivity to dental amalgam. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology*. 2011; 112(3):335-41. Available from: https://www.sciencedirect.com/science/article/pii/S1079210411002046. Accessed March 2019.

[1074] Bjørklund G, Stejskal V, Urbina MA, Dadar M, Chirumbolo S, Mutter J. Metals and Parkinson's disease: mechanisms and biochemical processes. *Current Medicinal Chemistry*. 2018; 25:1-7. Available from: https://www.detoxklinik.de/files/9215/2005/4819/2018_Parkinson_and_metals_reprint.pdf. Accessed March 2019.

[1075] Cariccio VL, Samà A, Bramanti P, Mazzon E. Mercury involvement in neuronal damage and in neurodegenerative diseases. *Biological Trace Element Research*. 2018; 18:1-6. Abstract available from: https://link.springer.com/article/10.1007/s12011-018-1380-4. Accessed March 2019.

[1076] Hsu YC, Chang CW, Lee HL, Chuang CC, Chiu HC, Li WY, Horng JT, Fu E. Association between history of dental amalgam fillings and risk of Parkinson's Disease: a population-based retrospective cohort study in Taiwan. *PloS One*. 2016; 11(12):e0166552. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166552. Accessed March 2019.

[1077] Mutter J. Is dental amalgam safe for humans? The opinion of the scientific committee of the European Commission. *Journal of Occupational Medicine and Toxicology*. 2011; 6:2. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025977/. Accessed March 2019.

[1078] Ngim C, Devathasan G. Epidemiologic study on the association between body burden mercury level and idiopathic Parkinson's disease. *Neuroepidemiology.* 1989: 8(3):128-141. Abstract available from: http://www.karger.com/Article/Abstract/110175. Accessed March 2019.

[1079] Venclikova Z, Benada O, Bartova J, Joska L, Mrklas L, Prochazkova J, Stejskal V, Podzimek S. In vivo effects of dental casting alloys. *Neuro Endocrinol Lett*. 2006; 27:61. Abstract available from: http://europepmc.org/abstract/med/16892010. Accessed March 2019.
[1080] Seidler A, Hellenbrand W, Robra BP, Vieregge P, Nischan P, Joerg J, Oertel WH, Ulm G, Schneider E. Possible environmental, occupational, and other etiologic factors for Parkinson's disease: a case-control study in Germany. *Neurology*. 1996; 46(5):1275-1284. Abstract available from: https://n.neurology.org/content/46/5/1275.short. Accessed March 2019.
[1081] Goldschmidt PR, Cogan RB, Taubman SB. Effects of amalgam corrosion products on human cells. *J Period Res*. 1976; 11(2):108-15. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0765.1976.tb00058.x/abstract. Accessed March 2019.
[1082] Ziff MF. Documented side effects of dental amalgam. *ADR.* September 1992; 6(1):131-134. Abstract available from: https://journals.sagepub.com/doi/abs/10.1177/08959374920060010601. Accessed March 2019.
[1083] Echeverria D, Woods JS, Heyer NJ, Rohlman D, Farin F, Li T, Garabedian CE. The association between a genetic polymorphism of coproporphyrinogen oxidase, dental mercury exposure and neurobehavioral response in humans. *Neurotoxicol Teratol*. 2006; 28(1):39-48. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0892036205001492. Accessed March 2019.
[1084] Lindh U, Hudecek R, Danersund A, Eriksson S, Lindvall A. Removal of dental amalgam and other metal alloys supported by antioxidant therapy alleviates symptoms and improves quality of life in patients with amalgam-associated ill health. *Neuroendocrinology Letters*. 2002; 23(5-6):459. Available from: http://www.dr-jacques-imbeau.com/PDF/Removal%20of%20amalgam%20alleviates%20symptoms.pdf. Accessed March 2019.
[1085] Kern JK, Geier DA, Bjørklund G, King PG, Homme KG, Haley BE, Sykes LK, Geier MR. Evidence supporting a link between dental amalgams and chronic illness, fatigue, depression, anxiety, and suicide. *Neuro Endocrinol Lett.* 2014; 35(7): 537-52. Available from: https://www.researchgate.net/profile/David_Geier/publication/271536688_Evidence_supporting_a_link_between_dental_amalgams_and_chronic_illness_fatigue_depression_anxiety_and_suicide/links/54d3b2a40cf246475802a640.pdf. Accessed March 2019.
[1086] Kidd RF. Results of dental amalgam removal and mercury detoxification using DMPS and neural therapy. *Altern Ther Health Med.* 2000; 6(4):49-55. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/10895513. Accessed March 2019.
[1087] Siblerud RL. A comparison of mental health of multiple sclerosis patients with silver/mercury dental fillings and those with fillings removed. *Psychol Rep.* 1992; 70(3c):1139-1151. Abstract available from: https://journals.sagepub.com/doi/abs/10.2466/pr0.1992.70.3c.1139. Accessed March 2019.
[1088] Siblerud RL, Motl J, Kienholz E. Psychometric evidence that mercury from silver dental fillings may be an etiological factor in depression, excessive anger, and anxiety. *Psychol Rep*. 1994; 74(1):67-80. Abstract available from: https://journals.sagepub.com/doi/abs/10.2466/pr0.1994.74.1.67. Accessed March 2019.
[1089] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett.* 2006; 27(4):415-423. Available from: http://www.nel.edu/userfiles/articlesnew/NEL270406A02.pdf. Accessed March 2019.
[1090] Podzimek S, Prochazkova J, Buitasova L, Bartova J, Ulcova-Gallova Z, Mrklas L, Stejskal VD. Sensitization to inorganic mercury could be a risk factor for infertility. *Neuro Endocrinol Lett.* 2005; 26(4), 277-282. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/16136024. Accessed March 2019.
[1091] Rowland AS, Baird DD, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. The effect of occupational exposure to mercury vapour on the fertility of female dental assistants. *Occupat Environ Med*. 1994; 51:28-34. Available from: http://oem.bmj.com/content/51/1/28.full.pdf. Accessed March 2019.
[1092] Guzzi G, Grandi M, Cattaneo C, Calza S, Minoia C, Ronchi A, Gatti A, Severi G. Dental amalgam and mercury levels in autopsy tissues: food for thought. *Am J Forensic Med Pathol*. 2006; 27(1):42-5. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/16501347. Accessed March 2019.
[1093] Kern JK, Geier DA, Bjørklund G, King PG, Homme KG, Haley BE, Sykes LK, Geier MR. Evidence supporting a link between dental amalgams and chronic illness, fatigue, depression, anxiety, and suicide. *Neuro Endocrinol Lett.* 2014; 35(7): 537-52. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/25617876. Accessed March 2019.
[1094] Wojcik DP, Godfrey ME, Christie D, Haley BE. Mercury toxicity presenting as chronic fatigue, memory impairment and depression: diagnosis, treatment, susceptibility, and outcomes in a New Zealand general practice setting: 1994-2006. *Neuro Endocrinol Lett.* August 2006; 27(4): 415-423. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/16891999. Accessed March 2019.
[1095] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from https://pdfs.semanticscholar.org/8f26/9e9db4bc4dbef4ff3f09eebea4dbb4b06d0a.pdf. Accessed April 11, 2018.
[1096] Bartova J, Prochazkova J, Kratka Z, Benetkova K, Venclikova Z, Sterzl I. Dental amalgam as one of the risk factors in autoimmune diseases. *Neuro Endocrinol Lett*. 2003; 24(1/2):65-67. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/12743535. Accessed March 2019.

[1097] Hybenova M, Hrda P, Prochazkova J, Stejskal V, Sterzl I. The role of environmental factors in autoimmune thyroiditis. *Neuroendocrinol. Lett*. 2010; 31:283-9. Available from: http://www.melisa.org/wp-content/uploads/2016/09/the-role-of-environmental-facotirs-and-autoimmune-throiditis-2.pdf. Accessed March 20, 2019.
[1098] Prochazkova J, Sterzl I, Kucerova H, Bartova J, Stejskal VD. The beneficial effect of amalgam replacement on health in patients with autoimmunity. *Neuroendocrinology Letters*. 2004 Jun 1;25(3):211-8. Available from: http://www.melisa.org/wp-content/uploads/2016/09/the-role-of-environmental-facotirs-and-autoimmune-throiditis-2.pdf. Accessed March 2019.
[1099] Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. *Neuro Endocrinol Lett.* 2006 Dec;27(Suppl 1):7-16. Available from http://www.melisa.org/pdf/Metal-induced-side-effects.pdf. Accessed March 2019.
[1100] Sterzl I, Procházková J, Hrdá P, Bártová J, Matucha P, Stejskal VD. Mercury and nickel allergy: risk factors in fatigue and autoimmunity. *Neuro Endocrinol Lett.* 1999; 20:221-228. Available from: http://www.melisa.org/pdf/nialler.pdf. Accessed March 2019.
[1101] International Programme on Chemical Safety. Environmental health criteria 118: inorganic mercury. *World Health Organization.* Geneva, 1991. Available from: http://www.inchem.org/documents/ehc/ehc/ehc118.htm. Accessed March 2019.
[1102] Risher JF. Elemental mercury and inorganic mercury compounds: human health aspects. *Concise International Chemical Assessment Document 50.* Published under the joint sponsorship of the United Nations Environment Programme, the International Labour Organization, and the World Health Organization, Geneva, 2003. Available from: http://www.inchem.org/documents/cicads/cicads/cicad50.htm. Accessed March 2019.
[1103] Bernhoft RA. Mercury toxicity and treatment: a review of the literature. *Journal of Environmental and Public Health*. 2011 Dec 22; 2012. Available from: http://downloads.hindawi.com/journals/jeph/2012/460508.pdf. Accessed March 2019.
[1104] Camisa C, Taylor JS, Bernat JR, Helm TN. Contact hypersensitivity to mercury in amalgam restorations may mimic oral lichen planus. *Cutis*. 1999; 63(3): 189-192. Abstract available from: https://europepmc.org/abstract/med/10190076. Accessed March 2019.
[1105] Clarkson TW, Magos L, Myers GJ. The toxicology of mercury—current exposures and clinical manifestations. *New England Journal of Medicine*. 2003; 349(18): 1731-1737. Available from: https://web.stanford.edu/dept/SUSE/projects/emsi/pages/workshopresources/Toxicology%20of%20Mercury.pdf. Accessed March 2019.
[1106] Clarkson TW, Magos L. The toxicology of mercury and its chemical compounds. *Critical Reviews in Toxicology*. 2006; 36(8): 609-662. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/16973445. Accessed March 2019.
[1107] Echeverria D, Aposhian HV, Woods JS, Heyer NJ, Aposhian MM, Bittner AC, Mahurin RK, Cianciola M. Neurobehavioral effects from exposure to dental amalgam Hgo: new distinctions between recent exposure and Hg body burden. *The FASEB Journal*. 1998; *12*(11): 971-980. Available from: https://www.researchgate.net/profile/Alvah_Bittner/publication/13578478_Neurobehavioral_effects_from_exposure_to_dental_amalgam_Hg_New_distinctions_between_recent_exposure_and_Hg_body_burden/links/551d93e80cf29dcabb0302eb/Neurobehavioral-effects-from-exposure-to-dental-amalgam-Hg-New-distinctions-between-recent-exposure-and-Hg-body-burden.pdf. Accessed March 2019.
[1108] Klassen CD, editor. Casarette *& Doull's Toxicology* (7th Edition). New York: McGraw-Hill Medical; 2008: 949.
[1109] Magos L, Clarkson TW. Overview of the clinical toxicity of mercury. *Annals of Clinical Biochemistry*. 2006; 43(4): 257-268. Available from: https://journals.sagepub.com/doi/pdf/10.1258/000456306777695654. Accessed March 2019.
[1110] Rothwell JA, Boyd PJ. Amalgam dental fillings and hearing loss. *International Journal of Audiology*. 2008; 47(12): 770-776. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/14992020802311224. Accessed March 2019.
[1111] Syversen T, Kaur P. The toxicology of mercury and its compounds. *Journal of Trace Elements in Medicine and Biology*. 2012; 26(4): 215-226. Abstract available from: https://www.sciencedirect.com/science/article/pii/S0946672X12000077. Accessed March 2019.
[1112] United States Environmental Protection Agency (USEPA). Health effects of exposure to mercury: elemental (metallic) mercury effects. Available from: https://www.epa.gov/mercury/health-effects-exposures-mercury#metallic. Accessed March 2019.
[1113] Fleming M, Janosky J. The economics of dental amalgam regulation. Report Submitted for Review and Publication to "Public Health Reports." IAOMT. Available from IAOMT Web site: https://iaomt.org/9887-2/. Accessed March 2019.
[1114] Fleming M, Janosky J. The economics of dental amalgam regulation. Report Submitted for Review and Publication to "Public Health Reports." IAOMT. Available from IAOMT Web site: https://iaomt.org/9887-2/. Accessed March 2019.
[1115] Concorde East/West Sprl. The Real Co$t of Dental Mercury. Brussels, Belgium: the European Environmental Bureau, the Mercury Policy Project, the International Academy of Oral Medicine & Toxicology, Clean Water Action and Consumers for Dental Choice; March 2012. Available from: http://mercurypolicy.org/wp-content/uploads/2012/04/real_cost_of_dental_mercury_april_2012-final.pdf. Accessed March 2019.
[1116] McCann D. "A Solution to our Country's Big Health Care Problem? *CFO.* October 30, 2012. http://www3.cfo.com/article/2012/10/health-benefits_parker-hannifin-washkewicz-complementary-alternative-medicine-cam-sherri-tenpenny-chelation-mercury-fillings-pelletier. Accessed March 2019.

[1117] United Nations Environment Programme. *Minamata Convention on Mercury: Text and Annexes*. 2013: 48. Available from UNEP's Minamata Convention on Mercury Web site: http://www.mercuryconvention.org/Portals/11/documents/Booklets/Minamata%20Convention%20on%20Mercury_booklet_English.pdf. Accessed March 2019.
[1118] Lassen C, Maag J for the Nordic Council of Ministers. *Mercury Reductions are Feasible: Reducing Mercury Releases with Known Technologies and Management Solutions.* Stockholm, Sweden: INC1. 2010 June 8. Slide 14. Available from: http://www.diva-portal.se/smash/get/diva2:701717/FULLTEXT01.pdf. Accessed March 2019.
[1119] Kopperud SE, Staxrud F, Espelid I, Tveit AB. The post-amalgam era: Norwegian dentists' experiences with composite resins and repair of defective amalgam restorations. International Journal of Environmental Research and Public Health. 2016; 13(4):441. Available from: https://www.mdpi.com/1660-4601/13/4/441/pdf. Accessed March 2019.
[1120] Selin H, Keane SE, Wang S, Selin NE, Davis K, Bally D. Linking science and policy to support the implementation of the Minamata Convention on Mercury. Ambio. 2018 Mar 1;47(2):198-215. Available from: https://link.springer.com/article/10.1007/s13280-017-1003-x. Accessed March 2019.
[1121] McCann D. "A Solution to our Country's Big Health Care Problem? *CFO.* October 30, 2012. http://www3.cfo.com/article/2012/10/health-benefits_parker-hannifin-washkewicz-complementary-alternative-medicine-cam-sherri-tenpenny-chelation-mercury-fillings-pelletier. Accessed March 2019.
[1122] Heintze SD, Rousson V. Clinical effectiveness of direct Class II restorations—a meta-analysis. *J Adhes Dent.* 2012; 14(5):407-431. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/23082310. Accessed March 2019.
[1123] Makhija SK, Gordan VV, Gilbert GH, Litaker MS, Rindal DB, Pihlstrom DJ, Qvist V. Practitioner, patient, and caries lesion characteristics associated with type of material used to restore carious teeth: findings from The Dental PBRN. *Journal of the American Dental Association* (1939). 2011 Jun;142(6):622. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3107519/. Accessed March 2019.
[1124] Simececk JW, Diefenderfer KE, Cohen ME. An evaluation of replacement rates for posterior resin-based composite and amalgam restorations in U.S. Navy and Marine recruits. *J Am Dent Assoc.* 2009; 140 (2): 207. Abstract available from: https://www.sciencedirect.com/science/article/abs/pii/S0002817714642835. Accessed March 2019.
[1125] United Nations Environment Programme. *Minamata Convention on Mercury: Text and Annexes*. 2013: 48. Available from UNEP's Minamata Convention on Mercury Web site: http://www.mercuryconvention.org/Portals/11/documents/Booklets/Minamata%20Convention%20on%20Mercury_booklet_English.pdf. Accessed March 2019.
[1126] Bates MN. Dental amalgam fillings: an under-investigated source of mercury exposure. Update to original article in 2011 edition of *Encyclopedia of Environmental Health*, edited by J.O. Nriagu. Elsevier. 2018. Abstract available from: https://www.sciencedirect.com/science/article/pii/B9780124095489112308?via%3Dihub. Accessed March 2019.
[1127] Bakhurji E, Scott T, Mangione T, Sohn W. Dentists' perspective about dental amalgam: current use and future direction. *Journal of Public Health Dentistry.* 2017; 77(3):207-15. Abstract available from https://onlinelibrary.wiley.com/doi/abs/10.1111/jphd.12198. Accessed March 20, 2019.
[1128] Bates MN. Dental amalgam fillings: an under-investigated source of mercury exposure. Update to original article in 2011 edition of Encyclopedia of Environmental Health, edited by J.O. Nriagu. Elsevier. 2018. Abstract available from https://onlinelibrary.wiley.com/doi/abs/10.1111/jphd.12198. Accessed March 20, 2019.
[1129] Bellinger DC, Trachtenberg F, Daniel D, Zhang A, Tavares MA, McKinlay S. A dose-effect analysis of children's exposure to dental amalgam and neuropsychological function: the New England Children's Amalgam Trial. *J Am Dent Assoc.* 2007; 138(9):1210-6. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817714631901. Accessed March 2019.
[1130] Herrström P, Högstedt B, Aronson S, Holmén A, Råstam L. Acute glomerulonephritis, Henoch-Schönlein purpura and dental amalgam in Swedish children: a case-control study. *Sci Total Environ*. 1996; 191(3):277-82. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969796052709. Accessed March 2019.
[1131] Woods JS, Armel SE, Fulton DI, Allen J, Wessels K, Simmonds PL, Granpeesheh D, Mumper E, Bradstreet JJ, Echeverria D, Heyer NJ, Rooney JP. Urinary porphyrin excretion in neurotypical and autistic children. *Environ Health Perspect.* 2010; 118(10):1450-7. Available from: http://ehp.niehs.nih.gov/0901713/. Accessed March 2019.
[1132] Ye X, Qian H, Xu P, Zhu L, Longnecker MP, Fu H. Nephrotoxicity, neurotoxicity, and mercury exposure among children with and without dental amalgam fillings. *Int J Hyg Environ Health.* 2009; 212(4):378-86. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653184/. Accessed March 2019.
[1133] Bailer J, Rist F, Rudolf A, Staehle HJ, Eickholz P, Triebig G, Bader M, Pfeifer U. Adverse health effects related to mercury exposure from dental amalgam fillings: toxicological or psychological causes? *Psychol Med.* 2001; 31(2):255-63. Abstract available from: http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=70315&fileId=S0033291701003233. Accessed March 2019.
[1134] Cordier S, Grasmick C, Paquier-Passelaigue M, Mandereau L, Weber JP, Jouan M. Mercury exposure in French Guiana: levels and determinants. *Arch Environ Health.* 1998; 53(4):299-303. Abstract available from: http://www.tandfonline.com/doi/abs/10.1080/00039899809605712. Accessed March 2019.
[1135] Dental amalgam: few proven harmful effects but many ongoing concerns. *Prescrire Int.* 2008; 17(98):246-50. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/?term=19425270. Accessed March 2019.

[1136] Eley BM. The future of dental amalgam: a review of the literature. Part 7: Possible alternative materials to amalgam for the restoration of posterior teeth. *Br Dent J.* 1997; 183(1):11-4. Abstract available from: https://www.ncbi.nlm.nih.gov/pubmed/9254957. Accessed March 2019.
[1137] Franzblau A, d'Arcy H, Ishak MB, Werner RA, Gillespie BW, Albers JW, Hamann C, Gruninger SE, Chou HN, Meyer DM. Low-level mercury exposure and peripheral nerve function. *Neurotoxicology.* 2012; 33(3):299-306. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0161813X12000435. Accessed March 2019.
[1138] García-Godoy F. Resin-based composites and compomers in primary molars. *Dent Clin North Am.* 2000; 44(3):541-70. Abstract available from: http://www.ncbi.nlm.nih.gov/pubmed/10925772. Accessed March 2019.
[1139] Herrström P, Högstedt B, Aronson S, Holmén A, Råstam L. Acute glomerulonephritis, Henoch-Schönlein purpura and dental amalgam in Swedish children: a case-control study. *Sci Total Environ.* 1996; 191(3):277-82. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969796052709. Accessed March 2019.
[1140] Järup L. Hazards of heavy metal contamination. *Br Med Bull.* 2003; 68:167-82. Available from: http://bmb.oxfordjournals.org/content/68/1/167.long. Accessed March 2019.
[1141] Jones DW. Exposure or absorption and the crucial question of limits for mercury. *J Can Dent Assoc.* 1999; 65(1):42-6. Available from: http://www.cda-adc.ca/JADC/vol-65/issue-1/42.pdf. Accessed March 2019.
[1142] Jones DW. A Canadian perspective on the dental amalgam issue. *Br Dent J.* 1998; 184(12):581-6. Abstract available from: https://www.nature.com/articles/4809701. Accessed March 2019.
[1143] Kehe K, Reichl FX, Durner J, Walther U, Hickel R, Forth W. Cytotoxicity of dental composite components and mercury compounds in pulmonary cells. *Biomaterials.* 2001; 22(4):317-22. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0142961200001848. Accessed March 2019.
[1144] Kruzikova K, Kensova R, Blahova J, Harustiakova D, Svobodova Z. Using human hair as an indicator for exposure to mercury. *Neuro Endocrinol Lett.* 2009; 30(Suppl 1):177-81. Available from: https://www.researchgate.net/profile/Danka_Harustiakova/publication/40757680_Using_human_hair_as_an_indicator_for_exposure_to_mercury/links/541828280cf203f155ad9a8d.pdf. Accessed March 2019.
[1145] Langworth S, Bjorkman L, Elinder CG, Järup L, Savlin P. Multidisciplinary examination of patients with illness attributed to dental fillings. *J Oral Rehabil.* 2002; 29(8):705-13. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2842.2002.00963.x/abstract. Accessed March 2019.
[1146] Levy M. Dental amalgam: toxicological evaluation and health risk assessment. *J Can Dent Assoc.* 1995; 61(8):667-8, 671-4. Abstract available from: http://europepmc.org/abstract/med/7553398. Accessed March 2019.
[1147] MacEntee MI, Mojon P. Issues in the amalgam debate. *J Can Dent Assoc.* 1991; 57(12):931-6. Abstract available from: http://europepmc.org/abstract/med/1760778. Accessed March 2019.
[1148] Mathewson RJ. Restoration of primary teeth with amalgam. *Dent Clin North Am.* 1984; 28(1):137-43. Abstract available from: http://europepmc.org/abstract/med/6584342. Accessed March 2019.
[1149] McParland H, Warnakulasuriya S. Oral lichenoid contact lesions to mercury and dental amalgam--a review. *J Biomed Biotechnol*. 2012; 2012:589-569. Available from: http://downloads.hindawi.com/journals/biomed/2012/589569.pdf. Accessed March 2019.
[1150] Melchart D, Kohler W, Linde K, Zilker T, Kremers L, Saller R, Halbach S. Biomonitoring of mercury in patients with complaints attributed to dental amalgam, healthy amalgam bearers, and amalgam-free subjects: a diagnostic study. *Clin Toxicol.* 2008; 46(2):133–40. Abstract available from: https://www.tandfonline.com/doi/abs/10.1080/15563650701324211. Accessed March 2019.
[1151] Mitchell RJ, Osborne PB, Haubenreich JE. Dental amalgam restorations: daily mercury dose and biocompatibility. *J Long Term Eff Med Implants.* 2005; 15(6):709-21. Abstract available from: http://www.dl.begellhouse.com/journals/1bef42082d7a0fdf,56437700108bb47c,402a8fda1c7a952f.html. Accessed March 2019.
[1152] Risher JF, De Rosa CT. Inorganic: the other mercury. *J Environ Health*. 2007; 70(4):9. Abstract available from: http://search.proquest.com/openview/c45089ff6ff82a8dd4f41277cf344423/1?pq-origsite=gscholar. Accessed March 2019.
[1153] Schweinsberg F. Risk estimation of mercury intake from different sources. *Toxicol Lett.* 1994; 72(1-3):345-51. Abstract available from: http://www.sciencedirect.com/science/article/pii/0378427494900477. Accessed March 2019.
[1154] Williams D. Caution and causation: lessons from the delicate story of dental amalgam. *Med Device Technol.* 2008; 19(5):8, 10-1. Abstract available from: http://europepmc.org/abstract/med/18947143. Accessed March 2019.
[1155] Zimmer H, Ludwig H, Bader M, Bailer J, Eickholz P, Staehle HJ, Triebig G. Determination of mercury in blood, urine and saliva for the biological monitoring of an exposure from amalgam fillings in a group with self-reported adverse health effects. *Int J Hyg Environ Health.* 2002; 205(3):205–11. Abstract available from: http://www.sciencedirect.com/science/article/pii/S1438463904701467. Accessed March 2019.
[1156] Ericson A, Kallen B. Pregnancy outcome in women working as dentists, dental assistants or dental technicians. *Int Arch Occup Environ Health.* 1989; 61(5):329-33. Abstract available from: http://link.springer.com/article/10.1007/BF00409388. Accessed March 2019.
[1157] Heggland I, Irgens ÅI, Tollånes M, Romundstad P, Syversen T, Svendsen K, Melø I, Hilt B. Pregnancy outcomes among female dental personnel--a registry-based retrospective cohort study. *Scand J Work Environ Health.* 2011; 37(6):539-46. Available from: https://www.researchgate.net/profile/Agot_Irgens/publication/51223725_Pregnancy_outcomes_among_female_dental_personnel_-_A_registry-based_retrospective_cohort_study/links/0046352b14474d294b000000.pdf. Accessed March 2019.

[1158] Heidam LZ. Spontaneous abortions among dental assistants, factory workers, painters, and gardening workers: a follow up study. *J Epidemiol Community Health*. 1984; 38(2):149-55. Available from: https://jech.bmj.com/content/jech/38/2/149.full.pdf. Accessed March 2019.
[1159] Hujoel PP, Lydon-Rochelle M, Bollen AM, Woods JS, Geurtsen W, del Aguila MA. Mercury exposure from dental filling placement during pregnancy and low birth weight risk. *Am J Epidemiol*. 2005; 161(8):734-40. Available from: https://academic.oup.com/aje/article/161/8/734/185031. Accessed March 2019.
[1160] Mitchell RJ, Osborne PB, Haubenreich JE. Dental amalgam restorations: daily mercury dose and biocompatibility. *J Long Term Eff Med Implants.* 2005; 15(6):709-21. Abstract available from: http://www.dl.begellhouse.com/journals/1bef42082d7a0fdf,56437700108bb47c,402a8fda1c7a952f.html. Accessed March 2019.
[1161] Akesson I, Schutz A, Horstmann V, Skerfving S, Moritz U. Musculoskeletal symptoms among dental personnel; - lack of association with mercury and selenium status, overweight and smoking. *Swed Dent J.* 2000; 24(1-2):23-38. Abstract available from: http://europepmc.org/abstract/med/10997759. Accessed March 2019.
[1162] Arenholt-Bindslev D. Environmental aspects of dental filling materials. *Eur J Oral Sci.* 1998; 106(2 Pt 2):713-20. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1046/j.0909-8836.1998.eos10602ii06.x/abstract. Accessed March 2019.
[1163] Atesagaoglu A, Omurlu H, Ozcagli E, Sardas S, Ertas N. Mercury exposure in dental practice. *Oper Dent.* 2006; 31(6):666-9. Available from: http://www.jopdentonline.org/doi/full/10.2341/05-128. Accessed March 2019.
[1164] Ericson A, Kallen B. Pregnancy outcome in women working as dentists, dental assistants or dental technicians. *Int Arch Occup Environ Health.* 1989; 61(5):329-33. Abstract available from: http://link.springer.com/article/10.1007/BF00409388. Accessed March 2019.
[1165] Franzblau A, d'Arcy H, Ishak MB, Werner RA, Gillespie BW, Albers JW, Hamann C, Gruninger SE, Chou HN, Meyer DM. Low-level mercury exposure and peripheral nerve function. *Neurotoxicology.* 2012; 33(3):299-306. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0161813X12000435. Accessed March 2019.
[1166] Heggland I, Irgens ÅI, Tollånes M, Romundstad P, Syversen T, Svendsen K, Melø I, Hilt B. Pregnancy outcomes among female dental personnel--a registry-based retrospective cohort study. *Scand J Work Environ Health.* 2011; 37(6):539-46. Abstract available from: http://www.jstor.org/stable/23064889. Accessed March 2019.
[1167] Heidam LZ. Spontaneous abortions among dental assistants, factory workers, painters, and gardening workers: a follow up study. *J Epidemiol Community Health.* 1984; 38(2):149-55. Abstract available from: http://jech.bmj.com/content/38/2/149.short. Accessed March 2019.
[1168] Joshi A, Douglass CW, Kim HD, Joshipura KJ, Park MC, Rimm EB, Carino MJ, Garcia RI, Morris JS, Willett WC. The relationship between amalgam restorations and mercury levels in male dentists and nondental health professionals. *J Public Health Dent.* 2003; 63(1):52-60. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1752-7325.2003.tb03474.x/abstract. Accessed March 2019.
[1169] Mandel ID. Occupational risks in dentistry: comforts and concerns. *J Am Dent Assoc*. 1993; 124(10):40-9. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817793100123. Accessed March 2019.
[1170] Roberts HW, Leonard D, Osborne J. Potential health and environmental issues of mercury-contaminated amalgamators. *J Am Dent Assoc*. 2001; 132(1): 58-64. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0002817714615877. Accessed March 2019.
[1171] Thygesen LC, Flachs EM, Hanehøj K, Kjuus H, Juel K. Hospital admissions for neurological and renal diseases among dentists and dental assistants occupationally exposed to mercury. *Occup Environ Med*. 2011; 68(12):895-901. Abstract available from: http://oem.bmj.com/content/early/2011/04/20/oem.2010.064063.short. Accessed March 2019.
[1172] Hock C, Drasch G, Golombowski S, Müller-Spahn F, Willershausen-Zönnchen B, Schwarz P, Hock U, Growdon JH, Nitsch RM. Increased blood mercury levels in patients with Alzheimer's disease. *Journal of Neural Transmission.* 1998; 105(1): 59–68. Abstract available from: https://link.springer.com/article/10.1007/s007020050038. Accessed March 2019.
[1173] Roberts MC, Leroux BG, Sampson J, Luis HS, Bernardo M, Leitão J. Dental amalgam and antibiotic-and/or mercury-resistant bacteria. *Journal of Dental Research*. 2008; 87(5): 475–479. Available from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.534.3710&rep=rep1&type=pdf. Accessed March 2019.
[1174] Hertz-Picciotto I, Green PG, Delwiche L, Hansen R, Walker C, Pessah IN. Blood mercury concentrations in CHARGE Study children with and without autism. *Environ Health Perspect.* 2010; 118(1):161-6. Available from: https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.0900736. Accessed March 2019.
[1175] Ng DK, Chan CH, Soo MT, Lee RS. Low-level chronic mercury exposure in children and adolescents: meta-analysis. Pediatr Int. 2007; 49(1):80-7. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1442-200X.2007.02303.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019.
[1176] Woods JS, Armel SE, Fulton DI, Allen J, Wessels K, Simmonds PL, Granpeesheh D, Mumper E, Bradstreet JJ, Echeverria D, Heyer NJ, Rooney JP. Urinary porphyrin excretion in neurotypical and autistic children. *Environ Health Perspect.* 2010; 118(10):1450-7. Available from: http://ehp.niehs.nih.gov/0901713/. Accessed March 2019.
[1177] Michel I, Norbäck D, Edling C. An epidemiologic study of the relation between symptoms of fatigue, dental amalgam and other factors. *Swedish Dental Journal*. 1989; 13(1–2): 33–38. Abstract available from: https://europepmc.org/abstract/med/2734698. Accessed March 2019.
[1178] Langworth S, Björkman L, Elinder CG, Järup L, Savlin P. Multidisciplinary examination of patients with illness attributed to dental fillings. *Journal of Oral Rehabilitation.* 2002; 29(8): 705–713. Abstract available from: https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2842.2002.00963.x. Accessed March 2019.

[1179] Mitchell RJ, Osborne PB, Haubenreich JE. Dental amalgam restorations: daily mercury dose and biocompatibility. *J Long Term Eff Med Implants.* 2005; 15(6):709-21. Abstract available from: http://www.dl.begellhouse.com/journals/1bef42082d7a0fdf,56437700108bb47c,402a8fda1c7a952f.html. Accessed March 2019.
[1180] Herrström P, Schütz A, Raihle G, Holthuis N, Högstedt B, Råstam L. Dental amalgam, low-dose exposure to mercury, and urinary proteins in young Swedish men. *Arch Environ Health.* 1995; 50(2):103-7. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969796052709. Accessed March 2019.
[1181] Mitchell RJ, Osborne PB, Haubenreich JE. Dental amalgam restorations: daily mercury dose and biocompatibility. *J Long Term Eff Med Implants.* 2005; 15(6):709-21. Abstract available from: http://www.dl.begellhouse.com/journals/1bef42082d7a0fdf,56437700108bb47c,402a8fda1c7a952f.html. Accessed March 2019.
[1182] Thygesen LC, Flachs EM, Hanehøj K, Kjuus H, Juel K. Hospital admissions for neurological and renal diseases among dentists and dental assistants occupationally exposed to mercury. *Occup Environ Med*. 2011; 68(12):895-901. Abstract available from: http://oem.bmj.com/content/early/2011/04/20/oem.2010.064063.short. Accessed March 2019.
[1183] Woods JS, Martin MD, Leroux BG, DeRouen TA, Bernardo MF, Luis HS, Leitao JG, Kushleika JV, Rue TC, Korpak AM. Biomarkers of kidney integrity in children and adolescents with dental amalgam mercury exposure: findings from the Casa Pia children's amalgam trial. *Environ Res*. 2008; 108(3):393-9. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3236600/. Accessed March 2019.
[1184] Aminzadeh KK, Etminan M. Dental amalgam and multiple sclerosis: a systematic review and meta-analysis. *J Public Health Dent*. 2007; 67(1):64-66. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1752-7325.2007.00011.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=. Accessed March 2019
[1185] Bangsi D, Ghadirian P, Ducic S, Morisset R, Ciccocioppo S, McMullen E, Krewski D. Dental amalgam and multiple sclerosis: a case-control study in Montreal, Canada. Int J Epidemiol. 1998; 27(4):667-71. Available from: http://ije.oxfordjournals.org/content/27/4/667.full.pdf. Accessed March 2019.
[1186] Casetta I, Invernizzi M, Granieri E. Multiple sclerosis and dental amalgam: case-control study in Ferrara, Italy. *Neuroepidemiology*. 2001; 20(2):134-7. Abstract available from: http://www.karger.com/Article/Abstract/54773. Accessed March 2019.
[1187] Thygesen LC, Flachs EM, Hanehøj K, Kjuus H, Juel K. Hospital admissions for neurological and renal diseases among dentists and dental assistants occupationally exposed to mercury. *Occup Environ Med*. 2011; 68(12):895-901. Abstract available from: http://oem.bmj.com/content/early/2011/04/20/oem.2010.064063.short. Accessed March 2019.
[1188] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. Epigenetics, the Environment, and Children's Health across Lifespans. David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[1189] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. Epigenetics, the Environment, and Children's Health across Lifespans. David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[1190] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. Epigenetics, the Environment, and Children's Health across Lifespans. David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[1191] Richardson GM, Wilson R, Allard D, Purtill C, Douma S, Gravière J. Mercury exposure and risks from dental amalgam in the US population, post-2000. *Sci Total Environ.* 2011; 409(20):4257-4268. Abstract available from: http://www.sciencedirect.com/science/article/pii/S0048969711006607. Accessed March 2019.
[1192] Goodrich JM, Chou HN, Gruninger SE, Franzblau A, Basu N. Exposures of dental professionals to elemental mercury and methylmercury. *Journal of Exposure Science and Environmental Epidemiology*. 2016; 26(1):78. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4689636/. Accessed March 2019.
[1193] Gul N, Khan S, Khan A, Nawab J, Shamshad I, Yu X. Quantification of Hg excretion and distribution in biological samples of mercury-dental-amalgam users and its correlation with biological variables. *Environmental Science and Pollution Research*. 2016; 23(20):20580-90. Abstract available from: https://link.springer.com/article/10.1007/s11356-016-7266-0. Accessed March 2019.
[1194] European Food Safety Authority (EFSA) Panel on Contaminants in the Food Chain (CONTAM). *EFSA Journal*. 2012; 10(12):2985 [241 pp., see second to last paragraph for this quote]. doi:10.2903/j.efsa.2012.2985. Available from EFSA Web site: http://www.efsa.europa.eu/en/efsajournal/pub/2985.htm. Accessed March 2019.
[1195] Kall J, Just A, Aschner M. What is the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan. *Epigenetics, the Environment, and Children's Health across Lifespans.* David J. Hollar, ed. Springer. 2016. pp. 159-206 (Chapter 7). Abstract available from: http://link.springer.com/chapter/10.1007/978-3-319-25325-1_7. Accessed March 2019.
[1196] Heintze SD, Rousson V. Clinical effectiveness of direct Class II restorations—a meta-analysis. *J Adhes Dent.* 2012; 14(5):407-431. Abstract available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0722.1983.tb00792.x/abstract. Accessed March 2019.