

DENTAL MERCURY POISONING

(POLITICAL CONSIDERATIONS, DIAGNOSIS AND TREATMENT)

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"Never has so much harm been done to so many by so few"

(Murray J Vimy, Professor of Oral medicine, Calgary University, Canada, 2000)



Mercury amalgam was first used in dentistry in 1826. It consists of an amalgam of silver, tin, copper, and zinc dissolved in approximately 50% mercury, which is a toxic and volatile heavy metal. Because mercury amalgam is so toxic, technicians must wear protective clothing when preparing it and dentists are legally required to send removed amalgam fillings in airtight sealed containers to approved poisons disposal agencies. A mercury amalgam filling is therefore technically a mercury implant and as long ago as in 1926, a German chemist, Dr Alfred Stock, demonstrated that amalgam fillings are a source of mercury vapour (1).

In 1998, a report commissioned by the Swedish Government, stated that 'mercury from amalgam fillings is liable to damage the central nervous system, kidneys and the immune system'. The Swedish Dental Material Commission advised that exposure to mercury in dental amalgams is hazardous and that mercury is liable to be deposited in the thyroid gland, retina of the eye and in the testicles (2).

During 2008, the EU Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) prepared a report on the safety of dental amalgams and alternative restoration dental materials. It considered the following issues.

1. Is mercury from dental amalgam posing a risk to the environment and the contribution made to environmental mercury poisoning by mercury released from dental clinics?
2. Is it scientifically justified to conclude that mercury in dental amalgam causes serious adverse effects on human health due to mercury release into the environment?

The committee concluded that dental mercury is a toxicological hazard, particularly with neurological and psychological adverse effects, and that there should be a sustained reduction in the use of mercury amalgam across the European Community (3).

Similarly, in 2013 the World Health Organization (WHO) stated that mercury is toxic to the central and peripheral nervous systems and that it can cause adverse effects on the nervous, digestive and immune systems, lungs and kidneys (4).

In a letter dated July 2014, the British Department of Health wrote to me as follows.

“Dental amalgam has been in use for over 150 years with fillings placed in billions of people. Only a very few adverse effects have been noted in the very small number of people who are allergic to mercury. There have been successive expert reports corroborating the empirical evidence on safety. Mercury exposure from fillings is thought to be about the same as that from the diet, and therefore does not pose a significant health risk.”

The British government is clearly disregarding the SCENIHR (3) directive for a sustained reduction in the use of mercury amalgam’.

Sweden and Denmark prohibit the use of amalgam dental fillings. Austria, Canada and Australia permit amalgam fillings for the general population, but not for children, pregnant women and for those with renal impairment. The American FDA has stated that mercury has potential neurotoxic effects and advises that it should not be used for young children or for pregnant mothers. In California, dentists are required to display a notice to the effect that if patients choose to have amalgam fillings, they do so at their own risk and would not be entitled to sue for compensation for consequent mercury related health problems. In the United Kingdom, France, Italy and Germany, the use of mercury in dentistry is unrestricted with the exception that it is not permitted for young children or pregnant women.

In the United Kingdom, the only clinical indication for removing an intact amalgam filling is an allergy to mercury confirmed with a skin prick test. Because of the risk of anaphylaxis, it is recommended that such mercury allergy testing is only undertaken in hospitals that are equipped to deal with severe allergic reactions.

There are many credible accounts about people, who have “miraculously” recovered from chronic illnesses following detoxification and the safe removal of dental amalgam fillings (5,6,7). These include chronic fatigue syndrome, Alzheimer’s disease Parkinson’s syndrome, irritable bowel syndrome, systemic lupus erythematosus (SLE), multiple sclerosis, fibromyalgia, muscular dystrophy, heart disease, hypertension, asthma, and migraine.

A meta-analysis of patients treated for dental mercury toxicity showed that 89% of 1569 patients treated experienced 'that their symptoms had improved or were eliminated after safe replacement of their amalgam dental fillings' (5).

Systemic reactions to mercury toxicity

The first symptom of dental mercury toxicity is unexplained fatigue. Other reactions include a metallic taste, burning pains in the mouth throat and stomach, increased salivation, swollen salivary glands, abdominal pains, diarrhoea and vomiting, hypothyroidism, allergies, headaches, dermatitis, a subnormal body temperature, cold clammy hands, perspiration and night sweats (5).

Neurological and psychiatric reactions include anxiety, depression, loss of memory and inability to concentrate, insomnia, muscle weakness and paraesthesia, ataxia, tremors of the eyelids, lips, tongue, hands and feet, numbness and burning sensations, motor neurone disease, multiple sclerosis, Parkinson's syndrome and chronic fatigue syndrome. Gastro-intestinal reactions include food sensitivities, dysbiosis (bacterial, fungal and micro parasitical) and inflammatory bowel disease.

Endocrine and autoimmune reactions include thyrotoxicosis and systemic lupus erythematosus (5).

Overview

Even in countries where the use of dental mercury is unrestricted, dental mercury waste is classified as highly toxic and must be disposed of initially in mercury vapour resistant containers. The British Dental Association (BDA) has failed to explain why it regards mercury to be safe inside the mouth yet highly toxic outside the mouth.

In favour of dental mercury implants, the BDA points out that they are cheaper, easier and quicker to install and more durable than white resin alternatives.

In those countries that still permit dental mercury implants, dental mercury poisoning is not covered in conventional dental and medical textbooks so that doctors are not taught about dental mercury poisoning. There are several reasons for this.

1. Overt dental mercury related illness is liable to take more than five years to develop so that the association between dental mercury and the onset of mercury related illness is unlikely to be self-evident, particularly as doctors are not trained to regard dental mercury as potentially toxic and because patients do not consult their dentists about health deterioration.
2. Blood, urine and hair tests for mercury are of no clinical significance, because in susceptible individuals, mercury is retained in the body cells rather than circulated in the bloodstream or excreted in the urine or hair.
3. Although release of mercury vapour in the mouth can readily be quantified, e.g. with a Jerome 431-XE mercury vapour analyser (6,7), such technology is not routinely used in standard medical or dental practice. With mercury vapour analysers, it has been shown that chewing gum and drinking hot drinks cause a significant increase in release of mercury vapour into the mouths of subjects with mercury amalgam fillings.
4. Doctors and dentists are not taught to investigate the high galvanic currents and voltages that are associated with toxic mercury amalgam implants.

5. Suitable medications for chronic mercury poisoning such as chelation therapy, modern homeopathic drainage and probiotics are not included in standard medical and dental pharmacopoeias and a bio-regulatory approach to diagnosis and treatment selection is not generally employed by conventionally trained doctors and dentists.
6. In the United Kingdom, the British Dental Association (BDA) disregards the research that led the Swedish Government to ban the use of mercury in dentistry. It may be relevant that many British dentists earn a substantial part of their incomes from dental mercury implants and that the British Government is advised by the dentist's trade union, the BDA. Also, prohibiting the use of mercury in dentistry mercury would increase the cost of NHS dentistry.

Factors predisposing to dental mercury toxicity

These include the number of mercury fillings, the length of time in place, other nearby fillings with variable metallic components (particularly gold), related caries (which acidifies the local biological terrain and promotes galvanic currents) and the patient's own ability to excrete mercury since some people excrete mercury more efficiently than others. (5,6,7).

Swallowed mercury vapour poisons healthy intestinal microflora, causes dysbiosis, weakens the immune system, causes autoimmune disease, reduces fertility, crosses the placenta into the developing foetus, causes antibiotic resistance and impairs renal function. (8).

Animal and human autopsy studies

In sheep, mercury amalgam implants have been shown to impair renal function (9, 10).

Human autopsy studies indicate that mercury is deposited in the brain, kidneys, intestine, liver and heart and that the amount of mercury deposited in these tissues correlates with the number of fillings and the number of years in place (10).

Mercury released from dental fillings causes antibiotic resistant bacteria in primates (11).

Possible link between dental mercury and autoimmunity

In susceptible subjects, mercury molecules may be retained in the body cells and cause an antigenic inflammatory immune system response so that the mercury containing cells become foci of chronic autoimmune inflammation. Such an inflammatory autoimmune response may be associated with the autoimmune characteristics of inflammatory bowel disease, multiple sclerosis, Alzheimer's disease and Parkinson's syndrome.

Clinical considerations

The mouths of all chronically ill patients should be examined for mercury amalgam fillings. If amalgam fillings are found, the voltages between the amalgam fillings and the buccal mucosa should be measured using a simple voltmeter set to measure up to 2 volts (2000 mV).

Some practitioners consider that amalgam fillings with associated voltages above 100 mV should be routinely removed and replaced by less toxic alternative although the British Society of Mercury Free Dentists recommends that all amalgam fillings should eventually be removed. The author uses a bio regulatory approach (vegatesting) to identify the fillings in most need of dental treatment. In clinical practice, the teeth with the highest voltages are generally the teeth in most urgent need of dental treatment.

The voltages associated with all the amalgam fillings should be recorded in the patient's clinical notes, and when indicated the patient should be referred to a 'mercury-free'

dentist for safe removal and replacement of the amalgam fillings in most urgent need of replacement.

Mercury-free dentists in the United Kingdom can be located on the Internet (*British Society of Mercury Free Dentistry*).

Since acidic saliva promotes galvanic currents, an alkalizing toothpaste (e.g. Arm and Hammer) may be recommended, together with an alkalising diet. When indicated from urine and saliva pH measurements, alkalising supplements may also be prescribed.

Patients with amalgam fillings should be advised not to chew gum and to take their beverages warm rather than hot (6,7).

Medical management of dental mercury poisoning–

High Voltage Amalgam Fillings and Earthing

Patients with high-voltage amalgam fillings and ‘brain fog’ generally report a clearing of the brain fog immediately after removal of a high voltage amalgam filling. This immediate effect is not directly due to removal of the toxic mercury filling: it is rather due to removal of the high pathogenic electric currents that are associated with the filling.

Earthing mats or earthing patches to remove the pathogenic electricity that is associated with high voltage amalgam dental fillings can be purchased on the Internet (groundology.co.uk). While vegetesting patients with brain fog and toxic mercury dental fillings, the author gets the patient to place a foot on an ‘earthing’ mat (connected to a main earthing point. If, as a result, the brain fog clears, the patient is advised to buy an earthing mat.

Chelation therapy

‘Chelation’ means claw-like or binding, from the ancient Greek, chela (crab’s claw). Chelation therapy is the administration of chelating agents to bind to mercury molecules in order to promote their excretion. Chelation converts insoluble intracellular heavy metal (mercury and cadmium) molecules into soluble compounds that pass out of the body cells into the extracellular fluid (matrix) in preparation for excretion via the kidneys.

Zeolite Plus (from Water for Health) is a chelating preparation that is indicated in the management of dental mercury poisoning. It is a combination of zeolite, humic acid, fulvic acid, trace minerals and pure water. Zeolite is very fine particle clay, that has a cage-like chemical structure which enables it to adsorb heavy metal (mercury and cadmium) molecules. Zeolite molecules attach (claw like) to the intracellular mercury and cadmium molecules enabling them to pass out of the body cells into the extracellular fluid in readiness for excretion via the kidneys. Humic and fulvic acid contain electrically charged trace minerals that also promote heavy metal detoxification.

The recommended dose of Zeolite Plus for adults is 10 drops three times a day taken orally in spring water. With vegetesting (electro acupuncture) and muscle testing (clinical kinesiology), the dose range has been found to be 5-10 drops two or three times a day. Side effects, which are uncommon, include stomach cramps and can be managed by dose reduction. If bio-regulatory testing is not available, 7 drops twice a day is an average dose for adults.

Fulvic Restore (from Water for Health) is a natural fulvic acid preparation that contains over 70 electrically charged trace minerals. It is a natural antioxidant and a source of fulvic acid and electrolytes. It promotes general and heavy metal detoxification and is prescribed for residual mercury toxicity for patients, who have previously had all their amalgam fillings removed but without concomitant detoxification. The dose of Fulvic restore is the same as for Zeolite Plus.

Modern homeopathic drainage.

Treatment with Zeolite Plus and Fulvic Restore should be accompanied with modern homeopathic drainage. A suitable preparation is **Kidney Liquescence** from **New Vistas, Ireland**. The recommended dose for adults is one teaspoonful (5ml) taken twice a day at least fifteen minutes away from eating and the prescribed chelation therapy.

Dental considerations (12)

The safe removal and replacement of mercury amalgam fillings requires specialist post-graduate dental expertise. A list of suitably trained British dentists is available is on the website of the British Society for Mercury Free Dentistry

<http://mercuryfreedentistry.org.uk>

It should be mentioned that not all mercury free dentists are fully aware of the importance of detoxification before and after dental treatment to replace mercury amalgam dental fillings.

Protocols vary between dentists. Most dentists prefer to replace only one or two amalgam fillings during a session and to treat only one quadrant at a time, beginning with those fillings with the highest associated voltages and/or with those in most urgent need of replacement. The interval between dental sessions should be at least one week because replacing amalgam fillings is stressful to the patient and is liable to cause additional release of mercury. In any event, enough time should be allowed between dental sessions for the patient to have fully recovered from the previous session.

Mercury free dentists generally use rubber dams in their patient's mouths in order to prevent mercury particles from being swallowed. They also use high-volume suction and copious irrigation. A nasal tube providing oxygen or air may also be used to reduce inhalation of mercury particles. Amalgam fillings are removed carefully with a tungsten carbide drill, that cuts rather than vaporises. White resin fillings are suitable replacements for amalgam fillings in non-grinding teeth, although they are more expensive and less durable. Porcelain crowns and gold fillings are as durable as amalgam fillings but are about three times the cost of white resin fillings.

Dental removal of amalgam fillings is liable to cause additional toxic release of mercury vapour. In view of this, it is recommended that naturopathic detoxification is started several weeks before and continued for several months after the dental treatment.

References

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ABSTRACT: The German chemist, Dr Alfred Stock, researched mercury poisoning, and showed that 'silver' fillings in the mouth are a significant source of mercury vapour. (Dr Stock, himself recovered from long standing illness as a result of having his amalgam fillings replaced.)
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ABSTRACT Every amalgam filling releases in the order of 10 micrograms of mercury per day into the body. This is equivalent to 3,000,000,000,000,00 mercury atoms per day.

Mercury can cause autoimmune disease.
Mercury can impair renal function.

Mercury predisposes to antibiotic resistant bacteria.
Mercury reduces fertility.

Mercury crosses the placenta into the developing foetus.
9. Boyd N.D; Benediktsson H; Vimy MJ; D.E. Hooper, and Lorscheider FL; Mercury from dental "silver" tooth fillings impairs sheep kidney function. *Am. J. Physiol.* 261, (Regulatory Integrative Comp. Physiol. 30): R1010- R1014, 1991.

Abstract.
Within thirty days after placement of twelve occlusal amalgam fillings in six adult sheep, there was a 50% impairment of kidney function. After sixty days, there was 60% impairment in renal function.
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Abstract

Within thirty days after placement of twelve occlusal amalgam fillings in six adult sheep, there was a 50% impairment of kidney function. After sixty days, there was a 60% impairment in renal function.

12. This section was written in collaboration with Adam Saper, a dentist in Haverstock Hill, North London.

About the Author

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