



MERCURY MADNESS

by Sharon Erdrich

Mercury would undoubtedly be one of the most toxic substances in common use today, carrying an 'extreme' rating as a poison. Even in liquid form, contact with mercury is considered life-threatening or a 'severe' risk to health.

Mercury can cause severe respiratory tract damage, brain damage, kidney damage, central nervous system damage, and many other serious medical conditions even from extremely small doses.

- Mercury is the most toxic non-radioactive element on earth.
- A single drop on a human hand can be fatal.
- A silver-coloured mercury amalgam filling normally contains about 50 per cent mercury.
- On average, amalgam fillings weigh 1g and contain 1/2g of mercury.
- The typical adult carries 10 amalgam fillings containing 5g of mercury.
- 1/2g of mercury in a 10-acre lake could make all the fish in it unsafe to eat.
- Mercury is the only metal that is liquid at room temperature.
- Mercury looks like liquid silver. Its symbol on the periodic chart is Hg, which is derived from the Greek word hydrargyrias meaning water silver.



Mercury in history

Early hat makers were exposed to large amounts of mercury while tanning the animal pelts used in hats, gradually causing them to succumb to mental and nervous disorders, frequently mistaken for insanity. This mercury exposure is precisely what created the well-known saying, 'mad as a hatter'. In 1898, French legislators passed the first laws to protect hat makers from the dangers of mercury poisoning. But it took nearly 50 years for the US government to follow suit.

It was also common practice for doctors at that time to prescribe mercury as a remedy for curing syphilis.

In the early 1800s, French dentists successfully mixed mercury with other metals and plugged the mixture into cavities in teeth. These early mixtures contained relatively small amounts of mercury and required heat to enable the metals to bind together. In 1819, Englishman Benjamin Bell developed an amalgam mix with much more mercury in it that enabled the metals to bind at room temperature. In the 1830s, the amalgam concept was introduced in America and was widely denounced due to the associated dangers of mercury exposure. When the American Society of Dental Surgeons (ASDS) was formed in 1840, its members were required to sign a pledge never to use mercury amalgam on account of its great toxicity. The debate over this eventually led to the disbanding of the ASDS and the American Dental Association (ADA) was formed in its wake. Today, the ADA states that amalgams are safe and do not present a health threat, despite the fact that, in 1989, the Environmental Protection Agency (EPA) declared amalgams a hazardous substance.

(www.stephenmacallan.co.uk/mercury.htm)

Pink Disease was a serious disease of infants and young children that baffled the medical world during the first half of the twentieth century. Around a quarter of those stricken with the disease died. The symptoms included anaemia, lethargy, severe light sensitivity, skin rash and loss of appetite, weight and muscle tone. In 1948, mercury was discovered to be the cause of Pink Disease; so mercury, which was a common ingredient in teething powders, was subsequently

withdrawn from all baby products. Pink Disease is now exceptionally rare. Research indicates that people who survived the disease in their infancy may be prone to ongoing health problems such as bronchiectasis, autoimmune diseases, male infertility, chemical sensitivities and allergies.

How am I exposed to mercury?

While the three main sources of exposure in recent times have been fish consumption, dental amalgams and vaccines, there are many other sources of potential mercury exposure, including from batteries, fluorescent light tubes, thermometers and barometers, agricultural fungicides, as a preservative in medical liquids, and pre-1990 paints (as an anti-mildew agent). However, most people have it in their mouths! Dental amalgam (about half of which is mercury) is the greatest source of mercury in the general population and brain, blood and urine mercury levels increase according to the number and size of amalgams in the mouth.

Mercury is continually released from mercury dental fillings in the form of mercury vapour and abraded particles. These mercury vapours can increase as much as fifteen-fold by chewing, brushing, drinking hot liquids etc. The World Health Organisation (WHO) recently concluded that the daily intake of mercury from amalgam dental fillings exceeded the combined daily intake of mercury derived from air, water and food. A 1991 study found that mercury absorption was four times greater from amalgam fillings than it was from eating fish! Another study (1998) found that amalgam fillings could cause damage to the brain, kidneys and immune systems of children.

Pregnancy

The concentration of toxins in a developing embryo is often much higher than that of the mother – this is well-documented in several species, including humans. In one study of sheep, mercury in the umbilical cord and milk of the sheep was up to eight times higher than in the blood of the ewe – this phenomenon is well known in cases of foetal lead toxicity in humans and helps to explain unexpected levels of mercury toxicity, especially in those who have no other obvious exposure. Mothers with high mercury levels who are asymptomatic may have spontaneous abortions or bear children with subsequent impaired mental development.

Fish

The issue of the mercury content in fish has become an area of public concern in recent years. It is a fact that some fish contain excessively high levels of mercury. In the US, the Food and Drug Administration (FDA) recently warned the public on this issue.

In 2004, the EPA published press releases warning women about the dangers of eating fish due to toxic mercury. They advised limiting fish consumption to two meals a week. It is currently recommended that pregnant women should avoid consuming tuna due to its high mercury content.



How can it affect me?

The symptoms of mercury poisoning are somewhat non-specific, making it difficult to diagnose – thus, it is frequently missed as a contributing or causative factor in chronic or low-grade illness.

Most of the symptoms associated with a raised body burden of mercury are due to its toxic effect on nerves and brain cells and may include: tremors, dizziness, hearing problems, gingivitis (inflammation of the gums, causing them to bleed easily), mental disturbance (including memory loss), ataxia (loss of coordination), emotional instability such as irritability, anxiety, depression, anorexia, fatigue (for example, Chronic Fatigue Syndrome), insomnia, skin inflammation, excess perspiration and blushing, GI disturbances including candida, headache, visual disturbances (e.g. tunnel vision), peripheral neuropathy (numbing and/or tingling in the feet and hands), trembling and impaired immunity. Some common misdiagnoses of mercury toxicity are (particularly in the elderly): Parkinson's disease, senile dementia, metabolic encephalopathy (a condition of lesions in the brain brought on by liver disorder), depression and Alzheimer's disease.

Also worthy of note is that mercury accumulates over 20,000 times more in the failing heart muscle than in any other muscle in the same person, so irregular heart beat or heart failure may also be attributed to or worsened by this insidious toxin. To understand how it can affect your nervous system, view the short movie made by the University of Calgary at: <http://movies.commonscalgary.ca/mercury/>

Detection of mercury toxicity

The objective of any testing method is to assess the body burden, or stored levels of mercury (and other heavy metals), thus a blood or spot urine test is unlikely to be of any value, unless there is acute, high level exposure.

Many practitioners rely on hair mineral analysis to detect the presence of heavy metals in the body. While this is useful for many people, it can give a false high due to environmental exposure and may also return false negatives in many cases. There are significant numbers of people who are genetically predisposed to accumulate heavy metals – these people will generally be the most affected and the most difficult to diagnose without a urine challenge test. This same genetic marker has been positively correlated to Alzheimer's disease.

Urine provocation tests are the preferred method for ascertaining body burden of heavy metals.

Removing mercury fillings

If mercury is so dangerous, shouldn't everyone dash out and have his or her dental fillings removed? The answer has to be "NO!" The process of removing amalgams can significantly increase your mercury exposure and can cause an exacerbation of symptoms or general worsening of health. Before making a decision to have your fillings removed, it is wise to measure the level of toxic heavy metals in your body – you may require a programme to lower your level prior to having dental work done. Of course, it is not advisable to have any mercury dental work done while pregnant.

Treatments for mercury toxicity

Chelation is the standard treatment for heavy metal toxicity – it is the process of bonding to metals and other toxins. The most commonly used chelating substances are DMSA and DMPS which are very effective at lowering body mercury levels. Unfortunately, these substances also remove useful minerals (such as zinc, calcium and copper) from the body and a carefully tailored supplement regime is crucial to such a programme. A more gradual cleaning and detoxification regime using nutritional and herbal supplement programmes is also possible.

antioxidants

Glutathione is important in the body's immune system and for liver detoxification.

Vitamin C can help reduce the effects of certain toxic heavy metals – mainly by acting as a neutraliser to circulating toxins and, to a lesser extent, it can help mobilise tissue stores of toxins. Vitamin E is another antioxidant vitamin that is also worthy of inclusion.

herbs

There are many herbs that support the body in detoxifying, but top of the list for heavy metal toxicity would be chlorella and coriander, also known as cilantro. Consuming cilantro in the form of pesto is a tasty and effective way to minimize the build-up of heavy metals. Chlorella is a naturally occurring algae that is an excellent chelator of mercury, binding it in the gut for excretion. Garlic is a high-sulphur food, which also facilitates detoxification.

Cilantro Chelation Pesto

2 cups packed fresh coriander
2/3 cup olive oil
4 cloves garlic
1/3 cup brazil nuts
(high in selenium)
1/3 cup pumpkin seeds
(good source of zinc)
1/3 cup sunflower seeds
(great source of magnesium)
1-2 t kelp or karengo powder
(tasty and nutritious)
4 T lemon juice

- Process the coriander and oil until the coriander is well chopped.
- Add the remaining ingredients and process until finely blended into a paste.
- Add a touch of sea salt to taste and blend again.
- Store in dark glass jars if possible, refrigerate.

This pesto freezes well, so make lots when coriander is in season.

Have one tablespoon daily on toast, with veges, pasta or salads. Use for at least three weeks of every year as maintenance. Use for longer if you've got known high levels of heavy metals.

modified citrus pectin

Modified citrus pectin (MCP) is a dietary supplement that is fairly well known for its use in inhibiting cancer. It may also help to cleanse the body of mercury by increasing urinary excretion without side-effects.

What can you do?

- Change to a dentist who follows IAOMT protocols for amalgam removal.
- Sign the on-line BITE (Ban Mercury In Teeth Everywhere) petition – going to worldwide dental associations: <http://www.petitiononline.com/mercury/petition-sign.html>
- Recommended reading: *Uninformed Consent: The Hidden Dangers in Dental Care* by Hal Huggins and Thomas Levy.

The last word

Quick silver is a common name for mercury, both here and in Germany, and the *quick* in German is pronounced *quack*, thus dentists using amalgam became known as quacks – a term which has come to mean an "inept and fraudulent medic". 🦄