

The Heavy-Metal Mouth

Mercury Amalgam Fillings...

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Are They a Smoking Gun in Your Health History?

Got fatigue? How about depression, memory loss, ulcers, insomnia, or irritability? Millions of Americans do.

If you're one of the crowd, dental fillings likely aren't on your—or your doctor's—short list of possible causes. But mercury in the fillings you got last week, or even decades ago, might well be the cunning culprit.

If you think this is impossible, considering all the federal and state agencies and regulations out there to protect us, think again. The U.S. government restricts mercury in the food we eat, the water we drink, and the air we breathe, but does not regulate the number one source of human mercury exposure: mercury amalgam (silver) fillings.

There are three chemical forms of mercury—elemental, which is in dental amalgam; inorganic, which was once commonly available in thermometers; and organic, which is converted from inorganic mercury by microorganisms in soil and water. All forms of mercury are toxic to humans.

Dental amalgam is made of nearly equal parts of liquid mercury, generally about 50% by weight, and a powder containing silver, tin, copper, zinc and other metals. A recent national poll by Zogby International indicated that over 75% of consumers don't know that mercury is the main ingredient in “silver” fillings.

According to the Food and Drug Administration, “Dental amalgam contains mercury, which may have neurotoxic effects on the nervous system of developing children and fetuses. When amalgams are placed in teeth or removed from teeth, they release mercury vapor. Mercury is also released during chewing.”

“Silver” fillings are actually composed of 50% mercury, and are less than 30% silver.

TOXICITY PLUS

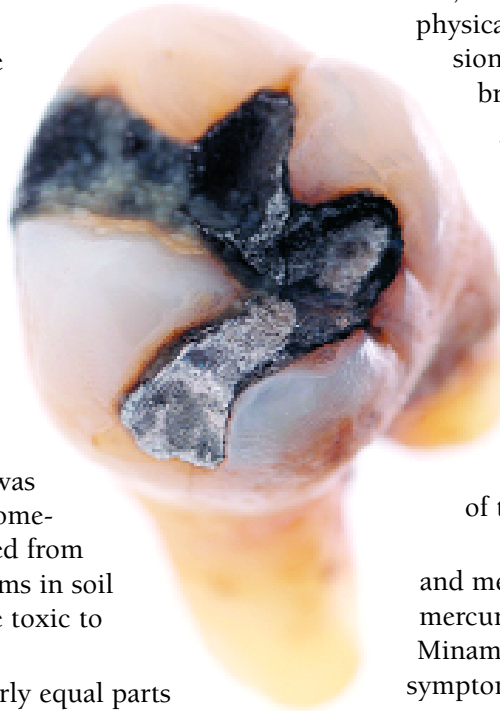
Deadlier than arsenic and lead, mercury is the most toxic non-radioactive element on earth. It occurs naturally in the earth's crust, but has no role in the human body. Mercury toxicity was revealed to the world in dramatic fashion in the mid-1950's in the Japanese fishing village of Minamata. There, more than 12,000 people (some estimates go as high as 100,000) suffered serious mental and

physical disorders, including convulsions, hearing and speech loss, brain damage, numbness, and joint pain, due to contamination of fish and seafood by mercury dumped for decades into Minamata Bay from a chemical plant. Eventually, 2000 people died and the local ecosystem and economy were decimated. Severe mercury poisoning was named Minamata Disease in the wake of the disaster.

Today, a large body of scientific and medical research shows harm in mercury exposures much lower than Minamata levels. In the list of known symptoms of chronic, low-dose exposure. (See the symptoms table on the next page.) America's most common health complaints—including fatigue and headaches—feature prominently.

Studies have also tied chronic mercury exposure to autism, Alzheimers, kidney and lung disease, diabetes, candidiasis, and auto-immune disorders such as multiple sclerosis, rheumatoid arthritis, and thyroiditis.

The wide-ranging effects are due in part to mercury's ability to cross the blood-brain barrier. In its most toxic form, as methyl mercury vapor, the element dissolves in the blood and is carried



throughout the body into all tissues and organs. Damage occurs at the cellular level, with the central nervous system being especially susceptible.

For fetuses, infants, and children, the primary health effects are neurological. Mercury in a woman's body can be passed to a developing fetus through the placenta or in breast milk, causing birth defects and complications related to memory, attention, and language. Young children exposed to mercury in combination with other heavy metals in their environment (such as lead in lead paint) may be harmed in ways not yet fully understood.

FISHY BUSINESS

Because mercury occurs naturally in the environment, everyone is exposed to very low levels. In the minds of the general public, levels high enough to have health effects are generally associated with industrial wastewater discharges and air emissions from coal burning power plants, contaminated food fish, and the mercury-based preservative thimerosal used in vaccines.

Confirmation by the World Health Organization that dental amalgams are the greatest common source of human elemental mercury exposure is not widely known, though the evidence is solid. Dental amalgams as old as 25 years have been shown to release significant mercury vapors upon stimulation by eating, drinking hot beverages, tooth brushing, flossing, and—no surprise—dental work. Grinding and drilling out old

mercury amalgam fillings can generate not only vapors that can be inhaled but also minute mercury particles that can be swallowed and absorbed in the intestines.

accounts for some 34 tons of mercury used annually. In the United States alone, more than 200 million people have mercury amalgams in their teeth. The average adult has ten mercury amalgams, containing about 5 grams of elemental mercury. Leading the charge to keep effective regulation of restricting the use of dental amalgam at bay, the American Dental Association argues that dental mercury amalgam is an affordable and durable filling material, and is perfectly safe and stable in the human mouth. However, the recent Zogby report indicated over 90% of the pollsters believe dentists should be required to tell patients about the mercury and about non-toxic alternatives. And by nearly 7 to 1, the public wants a ban on mercury fillings.

Despite the controversy, state governments are moving ahead with anti-amalgam legislation. California, Maine, Arizona, and Vermont have passed informed consent laws, requiring dentists who use mercury amalgam to tell patients that amalgam fillings contain the toxic material mercury. Legislation is being proposed in other states for similar "informed consent" laws to protect all patients.

The federal government strictly regulates mercury from other non-dental sources. The Environmental Protection Agency and the Occupational Safety and Health Administration ban mercury in paint, for example, and limit mercury in ambient air to five millionths of a gram per cubic meter. Half a gram of mercury in a 10-acre lake

SIGNS & SYMPTOMS OF MERCURY TOXICITY

*Chronic Fatigue
Metallic Taste • Headaches
Personality Changes
Unusual Irritability
Timidity or Shyness
Weakness • Apathy
Impaired Concentration
Recurrent Infections
Temper Outbursts
Difficulty with Balance
Hypertension
Suicidal Disposition
Hair Loss • Memory Loss
Speech Disorders
Tremors • Ulcers
Restlessness • Insomnia
Allergic Reactions*

Dental amalgams as old as 25 years have been shown to release significant mercury vapors. It is estimated that 50–60% of American dentists continue to use mercury amalgam in their practices, placing nearly 250,000 mercury amalgam fillings every day and upwards to 70 million mercury fillings a year! According to the EPA, this

warrants an advisory for fish consumption. To reduce exposure, pregnant women are advised to avoid king mackerel and shark, and to limit their weekly consumption of albacore tuna and salmon to 6 ounces and 12 ounces, respectively.

In 1994, citing a public health hazard, the Minnesota legislature even banned running shoes containing a half gram of mercury in their lighted heels.

In May, due to unrelenting pressure from the National Counsel of Consumers of Dental Choice, the U.S. Food and Drug Administration restated its website content on amalgam fillings eliminating claims that scientific evidence of amalgam harm is lacking or that other countries have restricted amalgams for environmental reasons only.

The new text takes a neutral stance on amalgams, while recognizing the serious health concerns posed by mercury amalgam, especially for unborn babies and young children, pregnant women, and people sensitive to mercury or with high body levels of mercury.

Norway and Sweden enacted complete bans on the use of mercury amalgams earlier this year. Other European countries discourage their use, suggesting that dentists turn to suitable alternatives.

GETTING TO SAFETY

Due to its insidious onset and nonspecific signs and symptoms, mercury poisoning is usually mis-diagnosed. If you're concerned about your own health, and the role of your mercury amalgams, visit a qualified health professional familiar with mercury toxicity such as a naturopathic

physician or mercury-free dentist. Naturopaths and mercury-free dentists frequently work together in dental-medical partnership to confirm and treat mercury toxicity through laboratory testing, nutritional support, detoxification, and removal of amalgam fillings.

If you're having a filling removed (whether for replacement or for detox purposes), choose a dentist properly trained in safe amalgam removal and committed to standards of practice set forth by the International Academy of Oral Medicine and Toxicology. The IAOMT has established safe amalgam removal protocols to safeguard patients and dental staff from mercury exposure during the removal process.

And for that new filling or crown, ask your dentist about

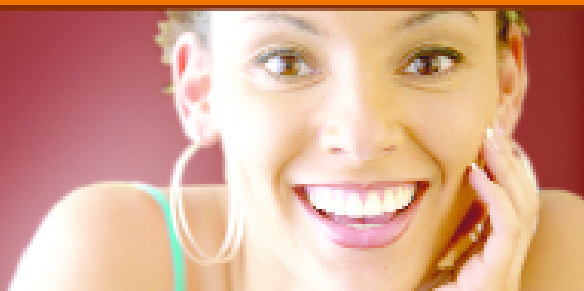
non-mercury materials. Suitable alternatives such as gold, ceramic, and plastic composites are readily available and offer many advantages over mercury amalgam.

If you are concerned about the possible health effects of mercury amalgam fillings, know the facts before speaking with a qualified health practitioner. Until practice and regulation catches up, you as a consumer will bear the burden of keeping potential harm from mercury fillings on your personal and family health radar. ■

Drs. Todd and Amy Kinney have lived and provided integrative dental care in Bozeman since 1997. Their health centered practice focuses on biological mercury-free dentistry, TMJ disorders, and holistic-based preventive care.

When you take time to see your dentist
does your dentist take time for you?

☼ We do.



Our integrative approach to oral health
makes time to consider the whole you.

We invite you to experience the difference.

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health centered dentistry—guided by nature.

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