

# Consumers for Dental Choice Unfolds Brilliant Strategy to Undo “Silver Fillings” Deception, Which Is a Major Source of Environmental Pollution

By Dr. Mercola

Mercury pollution is extremely persistent once in the air, water, and soil, and levels steadily increase over time as it accumulates. A number of industries contribute to mercury pollution, but *dental offices* are one of the primary culprits.

Dental amalgam, a tooth filling material that is 50 percent mercury—not silver—is the leading intentional use of mercury in the US, and dentist offices are the largest source of mercury in wastewater entering publicly owned treatment works.

Mercury from dental amalgam also pollutes the air via cremation, dental clinic emissions, and sludge incineration; and soil via landfills, burials, and sludge fertilizers.

Once in the environment, dental mercury converts to methylmercury, a highly toxic form of mercury known to be hazardous to brain and nervous system function, particularly in fetuses and young children.

## Your Donations are Matched Dollar for Dollar During Mercury-Free Dentistry Week

This week, we celebrate the fourth annual [Mercury](#)-Free Dentistry Week. The international mercury treaty known as the Minamata Convention on Mercury addresses mercury pollution from a wide variety of sources, but it's a game-changer for dental amalgam in particular.

Each nation that signs this comprehensive treaty against mercury pollution—now numbering 100, including the United States—commits itself to scaling down dental mercury without delay.

But despite this commitment, the US Food and Drug Administration (FDA) is still refusing to inform consumers about the mercury in amalgams, which is an important phase-down step.

Consumers for Dental Choice, founded by Sue Ann Taylor and the late Bob Jones and led by Charlie Brown, former attorney general of West Virginia, recently issued a new report titled, [Measurably Misleading](#),<sup>1</sup> which reveals how the FDA and the dental industry deceive you about dental mercury.

Your financial support for Consumers for Dental Choice is now needed. Working with talented environmental, consumer, and health leaders, Consumers for Dental Choice is launching phase

out campaigns in Europe, Asia, Africa, and Latin America. And to help you maximize your impact, I will match each and every donation made this week, dollar for dollar, up to a total of \$100,000.

## The Human Cost of Living with Mercury Pollution

Earlier this summer, journalist Chu Han wrote<sup>2</sup> about his visit to Wanshan, China—an area that once held the largest mercury reserve in Asia. The mine was closed in 2001 after 600 years of mercury mining, but the human and environmental effects still reverberate.

There, in the "mercury capital" of China, former miners still suffer from high rates of mercury poisoning, along with other societal ills rooted in poor health and environmental toxicity. As reported by Han:

*"In the village of Xiachangxi Wu Congyu, 40, sits watching two children. The rice in the fields is growing well and in a few months it'll be sold to traders who come for the harvest. But Wu and her family haven't eaten the rice they grow for seven years – they started to notice black spots on the grain, or empty hulls.*

*That was the same year the stream they use for irrigation turned dark. The pollution was coming from Wanshan... The Wanshan Environmental Protection Bureau has previously told the National Business Daily that land on the banks of the stream contains 278.5mg of mercury per kilogram, compared to a standard of 1.5mg per kilogram."*

## Mercury at Ocean Surface Tripled Since Preindustrial Times

In 2009, a US Geological Survey study found [mercury contamination](#) in every fish sampled in nearly 300 streams across the United States. More than a quarter of these fish contained mercury levels exceeding the criterion for the protection of people who consume average amounts of fish, established by the US Environmental Protection Agency (EPA).

According to estimates, roughly 75 percent of all human exposure to mercury in general comes from eating [contaminated fish](#). In addition to dental mercury, coal-powered power plants are another major source of environmental mercury pollution, as coal often contains mercury.

According to marine chemists at the Woods Hole Oceanographic Institution in Massachusetts, seawater samples collected from around the world's oceans show that mercury contamination has tripled in shallow waters since preindustrial times.<sup>3</sup>

In deeper waters, reaching between 100 and 1,000 meters deep, mercury pollution has risen about two-and-a-half times. As reported by Science News:<sup>4</sup>

*"The researchers estimate that in total, humans have dumped about 42,000 to 74,000 metric tons of mercury into the ocean... It's unclear what the mercury pollution means for human or wildlife health.*

*Mercury pollution can convert to methylmercury, a toxic substance that can build up in fish and poison people. How that conversion happens is mostly a mystery, [marine chemist Carl] Lamborg says, although scientists know that microbes are involved.*

*'If you tripled the amount of mercury in the ocean, do you triple the amount of mercury in fish as well?' he asks. 'We don't know.'*

## **Implications of Eating Contaminated Fish**

Methylmercury can harm your nervous system to differing degrees, depending on how much mercury you've accumulated in your body. At above average doses, brain functions such as reaction time, judgment, and language can be impaired. At very high exposures, mercury can affect your ability to walk, speak, think, and see clearly.

One 2012 study<sup>5</sup> evaluating the effects of mercury on cognition in otherwise healthy adults found that those with blood mercury levels below 5 µg/L had the best cognitive functions. Mild impairment was evident at blood mercury levels of 5 to 15 µg/L and above 15 µg/L, cognition was significantly impaired.

Mercury content can vary 100-fold from one fish species to another, so it certainly makes sense to pay close attention to which fish are on the high side and which are on the low end.

For example, research<sup>6</sup> published in 2010, which quantified the contributions to total mercury in the US seafood supply by 51 different varieties of fish and shellfish, found that tuna was responsible for *more than one-third* of Americans' total exposure to methylmercury.<sup>7</sup> For a handy list that you can print out for reference, please see the Mercury Policy Project's guide to mercury levels in different varieties of fish and shellfish.<sup>8</sup> Among the safest are shrimp, tilapia, and [wild salmon](#).

## **The Environmental Risks of Mercury-Contaminated Sludge Fertilizer**

The increasing use of sewage sludge as agricultural fertilizer<sup>9</sup> is another under-publicized and often hidden source of mercury exposure. Sludge, also referred to as "biosolids," is the toxic mix that is created by our municipal wastewater treatment facilities. In a twist of dark irony, sewage sludge began being "recycled" into food crops in the 1980s when it was realized that dumping it into rivers, lakes and bays was an environmental disaster...

Today, the US Environmental Protection Agency (EPA) states that about 50 percent of all biosolids are recycled to land. This sludge is what's left over after sewage is treated and processed.<sup>10</sup> Not surprisingly, scientific analysis of the poisons in sewage sludge shows that this is a very dangerous solution. Unfortunately, many American farmers and gardeners are unknowingly using sludge-derived "compost," which is given away free in many cities throughout the United States and other countries.

In addition to synthetic organic compounds like phthalates and chlorobenzene, sludge also contains a wide variety of toxins such as dioxins, pesticides, and several different heavy metals, including mercury. And, as noted in a previous *Indy Week* article:<sup>11</sup>

*"Sludge infiltrates the food chain through livestock that ingest sludge while grazing on sludge-applied fields or eating food grown in those fields. Sludge comes full circle when people eat the crops grown in the field, consume the meat or drink the milk of animals that directly or indirectly ingested the sludge. It can also enter waterways used for drinking water or irrigation."*

## Dental Amalgam Generates More Mercury Pollution Than Other Major Industries

Since mercury amalgam is one of the primary sources of wastewater mercury pollution, ending the use of amalgams in dentistry is an important step toward cleaning up our environment—be it air, water, or soil. Several studies show that about 50 percent of the mercury entering municipal wastewater treatment plants can be traced back to dental amalgam waste. This mercury waste amounts to about *3.7 TONS each year!*

An estimated 90 percent is captured by the treatment plants via sewage sludge,<sup>12</sup> some of which, again, end up as agricultural fertilizer. Other portions are incinerated (thereby polluting the air) or seep into waterways (polluting fish and wildlife). In the infographic below, you can see that the mercury used globally for dental fillings is greater than that used for other major industrial uses, including lighting, electronic devices, and more.



## The Environment Depends on a Phase-Out of Dental Amalgam

In order to protect human health and the environment, mercury should be phased out as quickly as possible. The Minamata Convention on Mercury requires the phasing out of many mercury-containing products, including thermometers, by 2020, and calls for an end to all mercury mining within 15 years. It also includes a mandatory phase down of amalgam use, effective immediately.

But instead of working for the phase-down and ultimate phase-out of amalgam use, the FDA and the American Dental Association (ADA) are stalling, saying that before phasing out amalgam we

should go through a litany of diversions like (1) prevention of tooth decay, (2) research and mercury inventories, and (3) mercury waste management – none of which actually phase down amalgam use, as required by the Minamata Convention.

No more research is needed before we take action – the many effective, affordable, and available mercury-free alternatives have already been researched for over half a century, and we certainly don't need any more research telling us that mercury is a problem. And the realistic solution to waste management, of course, is to stop creating more mercury waste – i.e., stop using amalgam. To get there, the FDA must stop the concealment of mercury in amalgam.

## Take Action Now: Help Catalyze Change

This is the week we can get Consumers for Dental Choice the funding it deserves. I have found few NGOs as effective, and none as efficient, as Consumers for Dental Choice. Its small team has led the charge on six continents -- including ours!

So I am stepping up with the challenge. For the fourth year in a row, I will match the funds you give. In 2012 the match was up to \$50,000 -- and you did it! In 2013 I upped the ante to \$75,000 -- and you did it again! This year, I believe a \$100,000 match is the right thing to do. Please give, and all dollars received up to \$100,000 will be matched by Natural Health Research Foundation, which I founded.

Consumers for Dental Choice is turning up the heat on our government. Opposing both the health needs and the right-to-know of American families, FDA gives the green light to the amalgam industry to conceal the mercury from American consumers -- and they do. FDA condones, not condemns, the marketing of amalgam as "silver fillings" -- hence the deception continues. Outrageously, FDA's amalgam rule advocates -- three times, no less -- more mercury fillings for American families, not less. But FDA now has two vulnerabilities. First, it is defying the Minamata Convention. Second, it is out of compliance with the Obama Administration on mercury.

Consumers for Dental Choice is executing a brilliant end run. It commissioned a poll with the distinguished Zogby Analytics firm, a poll which shows that Americans are indeed "measurably misled" (the title of its report) about terms like "silver fillings" and "amalgam." Armed with the evidence it needs, Consumers for Dental Choice directs its focus to U.S. Secretary of State John Kerry, who signed the Minamata Convention on behalf of our government, and should therefore insist that all government agencies follow it.

The Minamata Convention includes a pledge to scale down amalgam -- starting not in some future date but starting right now. So Consumers for Dental Choice created a [petition to the Secretary of State](#), asking that he *insist* the FDA disclose the presence of mercury in dental amalgam. The petition also requests that the Secretary of State take action to end the use of amalgam in government agencies that provide dental care, such as the Veterans Administration, the Defense Department, and the Bureau of Prisons.

I encourage you to sign and share this [petition](#) with your Facebook and Twitter networks. Besides that, tell your friends and family to avoid dentists who use mercury amalgams, and question your own dentist before you get a filling done. As with genetically engineered foods, voting with your pocket book is one of the most effective strategies you have at your disposal. As noted by Charlie Brown:

*"The FDA still sits in the pocket of the dental industry and the FDA will not and does not want people to know about the mercury... The FDA supports the use of the term 'silver fillings,' which is a massive consumer fraud.*

*We are going back to the State Department to say, 'You must insist that the FDA comply with the Minamata Convention.' This is our opportunity to change the FDA. It can no longer... do what it wants, because the United States has promised the world that it is going to start reducing dental amalgam. This has to start somewhere. It can certainly start with consumers, and it has. It can start with the government agencies, and it hasn't. But it must include the FDA. The FDA must change what it is doing."*