

# Stop Dental Mercury Pollution - A Five-Step Plan

Help reduce mercury pollution from the dental industry - the largest source of mercury in U.S. wastewater.



By [Rachel Cernansky](#) | Mon May 31, 2010 11:11



*Digital Vision/Thinkstock*

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What's the largest source of mercury pollution in wastewater? The dental industry, according to the [Mercury Policy Project](#). What to do about it? The group has these five tips to start with.

### 1. Find a mercury-free dentist

Act smart as a patient and consumer! Ask your current dentist about their practice, and let them know how you feel. Visit only dentists that take a pledge to keep toxic mercury out of your mouth. You can find a list of them by state from [Consumer for Dental Choice](#).

### 2. Ask about mercury separators

Even dentists who don't use mercury may still be removing amalgam fillings from your teeth. Make sure they have the appropriate pollution controls in place, such as amalgam separators, which remove mercury from wastewater before sending it into municipal wastewater systems.

### 3. Sign the call for a boycott of mercury fillings.

The consumer action group [Consumers for Dental Choice](#) is sponsoring an international call to action to keep mercury out of our dental fillings. They are putting pressure on Henry Schein, Inc., the primary manufacturer of mercury (amalgam) fillings, to start producing more environmentally- and people-friendly alternatives. Add your voice to the campaign by emailing [sylvia@toxiceeth.org](mailto:sylvia@toxiceeth.org) with your name, city, and state.

### 4. Write your local EPA office and ask about local mercury emissions

Your local government officials need to hear from you! Make sure they know you care about mercury in your water and air, and are concerned that dental wastes are not receiving enough attention. Find your regional office online, and email their wastewater and air division asking what they are doing to monitor mercury dental pollution.

**5. Tell EPA Administrator Lisa Jackson and the American Dental Association** that voluntary controls aren't working; copy your congressional representatives. Let them know you have seen reports from this week's congressional hearing, and that you are concerned mercury from dental offices is ending up in the fish you eat, the water you drink, and the air you breathe. Tell them it is time to stop letting dentists off the hook, and that you demand federal regulation requiring more stringent pollution controls to stop mercury at its source.

<http://planetgreen.discovery.com/work-connect/stop-dental-mercury-pollution-a-five-step-plan.html>

## The Largest Source of Wastewater Mercury Pollution: Dentists

by Rachel Cernansky  on 05.31.10

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*Image: Flickr via [iLoveMountains.org](http://iLoveMountains.org)*

We all know [coal-fired power plants](#) are to blame for a lot of the [mercury swimming through our waters](#). But they're not the worst, according to the [Mercury Policy Project](#). Do you know what is? The dental industry.

Yep, those silver amalgam fillings are actually composed primarily of mercury, not silver, and the shavings from new fillings and the removal of old fillings—whether when the filling breaks or when teeth are removed whole—help to make America's dentists, collectively, the single largest source of mercury pollution to wastewater.

While the EPA has recognized some public concerns over mercury from dental amalgam, regulation up until now has rested largely on voluntary pollution reduction measures, which the Mercury Policy Project says have barely any effect due to low compliance. The group, which [testified before Congress](#) last week on this issue, also charges that the American Dental Association has misled the EPA and the public, saying both that dentists have been voluntarily controlling their mercury pollution and that the metal doesn't end up in the [fish that people eat](#).

Michael Bender, director of the Mercury Policy Project (MPP). "Dentists are the largest polluter of mercury to wastewater. Yet ADA ignores the latest science from the U.S. Navy and others, and pretends that dental mercury doesn't end up in fish."

The [EPA agrees](#): "When amalgam enters water, certain microorganisms can change it into methylmercury, a highly toxic form that builds up in fish, shellfish and animals that eat fish. Fish and shellfish are the main sources of methylmercury exposure to humans.

MPP says that a 2008 EPA agreement with the ADA (which came—huge surprise—during the final days of the Bush administration) was signed based on an assumption that voluntary measures were effectively reducing pollution.

The group writes in a press release about the Congressional hearing, "Evidence of the failure of voluntary programs was extensively documented by a 2008 Domestic Policy Subcommittee report, following hearings. Since then, the Quicksilver Caucus, a coalition of state government officials, has found that amalgam separator installation rates are low unless there is a mandatory component. 'The need for dentists to install amalgam separators was well-established years ago,' Bender said. 'Yet, working with its state chapters, ADA has blocked any further mandates for separators since 2008, pretending that voluntary programs work.'"

An EPA Region 5 official was expected to testify with an estimate that the scope of the problem is much larger than the official EPA estimate—up to ten times higher than the EPA's 2002 emission inventory estimates, and a new MPP report, "Midnight Deal on Dental Mercury: How the Bush EPA's Agreement with the American Dental Association Undermines Pollution Prevention," found that the EPA's estimate of the amount of dental mercury released into the atmosphere is 4 to 6 times less than the actual amount.

Fixing the problem wouldn't take a miracle—just more than voluntary regulation. To prove that point: ten states have mandated mercury removal systems in dental offices already, according to MPP, and have been successful in preventing 95 to 99 percent of wastewater contamination.

<http://www.treehugger.com/files/2010/05/the-largest-source-of-wastewater-mercury-pollution-dentists.php>

## House Hears of Dental Mercury Ending Up in Fish

Sunday 30 May 2010

by: Randy Rieland, t r u t h o u t | Report

An agreement to have dentists voluntarily reduce mercury emissions from their offices has been largely ineffective, exposing Americans to more mercury in their fish, representatives of state environmental agencies and a mercury watchdog group told a House of Representative subcommittee last week.

Instead, they urged the Environmental Protection Agency to establish federal guidelines for regulating dental waste emissions, which have become one of the largest sources of mercury pollution in wastewater.

The hearing of the Domestic Policy Subcommittee of the House Oversight and Government Reform Committee focused on a 2008 Memorandum of Understanding (MOU) between the EPA and the American Dental Association, the trade association representing most American dentists. The MOU, reached during the last days of the Bush administration, allowed dentists to avoid federal oversight of mercury emissions. Instead, the ADA agreed that it would encourage its members to install "dental amalgam separators" that dramatically reduce the waste from the mercury used in many dental fillings.

The Mercury Policy Project contends the "midnight deal" between the Bush Administration's EPA and the ADA was based on data that significantly underestimated the level of mercury pollution coming from dentists' offices. The group also points out that the ADA claims that dental mercury doesn't end up in fish, which differs from the EPA's findings.

The EPA/ADA agreement came under fire from subcommittee Chairman Dennis Kucinich (D-Ohio), who asked Nancy Stoner, representing the EPA, why state environmental agencies had not been included. He also asked her why she wasn't prepared to say the agreement wouldn't be extended unless the agency saw a dramatic increase in dentists reducing mercury pollution through amalgam separators.

Stoner, who herself did not participate in shaping the MOU, said the EPA was gathering

more data and reviewing the effectiveness of the volunteer program. "No exemption is permanent," she testified.

But Kucinich countered that his staff has found that, "The ADA is not tracking dentists' compliance," adding, "I think you need to take a closer look at ADA's outreach" to its members.

William Walsh, outside counsel for the ADA, admitted to some "early failures" in getting dentists to control mercury emissions on their own. But he says his organization has now set first-year adoption goals of 20 percent of the dentists in the 38 states where there aren't laws regulating mercury emissions. It would then aim for increasing the number of members who install amalgam separators by 25 percent every year.

But Kucinich directed Walsh to a chart showing that dentists have purchased the anti-pollution devices in large numbers only when they were required to by law. "Dentists, in fact, are not voluntarily adopting amalgam separators," he said.

Walsh also was chastised by subcommittee member Diane Watson (D-California) when he didn't respond directly to her question. "Should dentists have to tell their patients that these amalgam fillings are mainly mercury?" asked Rep. Watson.

<http://www.truthout.org/house-hears-dental-mercury-ending-up-fish59969>

**Rinse. Spit. And have more mercury with your fish.**

**Mercury pollution from dental offices is contaminating your seafood 3**

by **Michael Bender**

28 May 2010



It seems innocent enough. Your dentist is giving you a new filling. You get some of those little metal slivers in your mouth and he tells you take a swig of water. Rinse and spit.

No problem, right?

Unfortunately, each one of those slivers is about half mercury. Multiply that simple routine millions of times, and you have the reason dentists have become the leading source of mercury pollution in our country's wastewater. Each sliver of mercury down the drain ends up in wastewater, then the nearest river or bay, and ultimately in the fish we eat.

In fact, at least 40 percent of mercury flowing into municipal wastewater treatment plants starts out in dentists' offices. And those plants aren't set up to keep all that mercury out of the environment.

The Environmental Protection Agency recognizes the danger of mercury in fish, so you would think it would be all over this, as part of its job to protect us from harmful pollutants. Unfortunately, it has given dentists a free pass.

In December 2008, during the waning days of the Bush administration, the EPA struck a deal with the American Dental Association, the trade association for most of America's dentists. That midnight deal, officially known as a Memorandum of Understanding, or MOU, allowed dentists to avoid being subject to federal guidelines on mercury emissions. Instead, the ADA promised to encourage its members to voluntarily install "amalgam separators," which can dramatically reduce the waste from the mercury in dental fillings.

Not surprisingly, that hasn't happened. The volunteer approach has been a failure. Our research at the Mercury Policy Project has found that of all the amalgam separators sold between 2004 and 2009, just 13 percent of the purchases were in states where dentists were using them voluntarily. Only 11 states now regulate mercury emissions from dentists' offices. In the rest, they remain major polluters.

It's not just our group that recognizes the fruitlessness of having the ADA set the agenda. At a congressional hearing this week in Washington, D.C., Rep. Dennis Kucinich (D-Ohio), chair of the House Domestic Policy Subcommittee, said his staff's research found that "dentists, in fact, are not adopting amalgam separators."

At the same hearing, Steven Brown, representing state environmental agencies -- which weren't privy to the EPA/ADA agreement until it was a done deal -- testified, "For voluntary programs as the solution, the time has passed."

The Quicksilver Caucus, a coalition of state government officials, found that same thing -- very few dentists install anti-pollution devices unless required to by law.

Naturally, the ADA continues resisting any change to the current arrangement. It now claims to have set annual goals of getting 20 to 25 percent of its members in non-regulated states to purchase amalgam separators. But the ADA has shown that on this issue they're not to be trusted. It's still [claiming on its website](#) that "dental amalgam" has little effect on the environment, and that this form of mercury isn't found in fish.

That's just not true. As the EPA itself notes, "when amalgam enters the water, microorganisms can change it to methylmercury, a highly toxic form that builds up in fish." What's also true is that a lot of dental mercury -- as much as seven to nine metric tons a year -- escapes into the atmosphere, much of it coming from the nation's crematoria. Those levels are only expected to rise during the next decade, due to an increase in the number of cremations, and also in the average number of fillings per person cremated.

Dental mercury pollution is a growing threat to our health, and particularly our children's developing brains and nervous systems. Does anyone really expect gentle nudges from a trade association to make the difference? It's time for the EPA to do its job. We need guidelines for mercury discharges from dental facilities, including the installation of amalgam separators. We need an updated emissions inventory and regulations for crematoria. And EPA must do all this out in the open. No more secret meetings and sweetheart deals.

Only then can we rinse and spit without poisoning fish.

<http://www.grist.org/article/2010-05-28-mercury-pollution-from-dental-offices-is-contaminating-seafood/>

## Dental Clinics and Toxic Mercury

Author: [Nicole Wong](#)

Published: [June 01, 2010 at 5:13 pm](#)

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Not many people are aware that dental clinics are the leading source of mercury pollution of waste water.



The Mercury Policy Project reports that a congressional hearing on dental mercury on May 26 addressed how current voluntary safeguards are simply not working to reduce dangerous environmental and health threats coming from dental offices.

Dental clinics have escaped federal regulation due to a backroom, midnight deal in the waning days of the Bush administration.

Chairman Dennis Kucinich of the Domestic Policy Subcommittee held a hearing on the 26th to evaluate the EPA's approach, outdated estimates, and the environmental and human health impacts of dental mercury waste.

Removing mercury from waste water sludge is far more costly than capturing it at the source, which is the dental clinics. To date, clinics have not voluntarily installed amalgam separators, which is why the mercury in dental fillings go directly into the drain, and into waste water. As a result, fillings end up in rivers, streams, ponds, lakes, and into the irrigation systems of agricultural and livestock farming.

Mercury in waste water biodegrades into methyl mercury, which bio-accumulates in fish and animals. Once this poison enters the food chain, people who consume the contaminated water, fish, poultry, livestock, risk getting seriously ill.

Just as the toxin builds up in a food source, it builds up in humans as well. Eating a contaminated fish won't kill us instantly, but if much of our food source is contaminated, the mercury level in our bodies add up pretty quickly and it would be a tragedy to allow methyl mercury poisoning to occur again.

Methyl mercury poisoning is known as Minamata disease. It is named for Minamata Bay, a body of water in Japan where, in the early 1950s, the fish contained high concentrations of methyl mercury from the polluted waste of a nearby industrial plant.

<http://technorati.com/lifestyle/green/article/dental-clinics-and-toxic-mercury/>

June 03

### ***EPA Wants to Protect You from Dental Mercury... In Your Water***

But don't worry at all about the mercury they're putting in your teeth! WTF?

<http://www.drbcuspide.com/index.aspx?sec=sup&sub=rst&pag=dis&ItemID=304783&wf=533>

EPA pressed to require amalgam separators

June 02, 2010

By: [Laird Harrison](#), Senior Editor

A Congressional oversight panel is pressing the Environmental Protection Agency (EPA) to require that all dentists in the U.S. install amalgam separators in their offices.

In a May 26 hearing, a subcommittee of the House of Representatives' Committee on Oversight and Government Reform demanded to know why the EPA exempts dentists from regulations that govern mercury emissions in other industries.

"There is no question that mercury should not be in the water supply and we should do everything we can to get it out of there," Rep. Dan Burton (R-IN) said. "And the biggest contaminators are dentists who are flushing this stuff down the drain, so we need to have these separators. That's important. I'm pretty upset about this."

The EPA and the National Association of Clean Water Agencies signed a memorandum of understanding (MOU) with the ADA on December 29, 2008, in which the ADA agreed to urge its members to install the separators, begin tracking how many practices have installed them, and set goals for increasing that number. In exchange, the EPA exempted dentists from wastewater rules.

A 2009 ADA survey found that 40% to 51% of dentists use amalgam separators, but that dropped to 28% to 36% in states where they are not required by law. The response rate to the survey, done by mail and Internet, was so low that the ADA admitted it was uncertain about the accuracy of these numbers.

### **Where does it go?**

Testimony submitted by SolmeteX, an amalgam separator company, placed the percentage of dental offices using separators at about 32%. According to SolmeteX, sales of separators have surged in the 11 states that require them, but not increased in states that don't require them since the MOU was signed.

"My staff assessed progress made under the MOU," said Rep. Dennis Kucinich (D-OH), chairman of the committee's Domestic Policy Subcommittee, in the hearing. "What we have found is that every milestone established by it has been missed in the nearly one and one-half years since it was signed."

Speaking on behalf of the ADA, attorney William J. Walsh argued that the government still shouldn't require dentists to install separators because enough of them will do it on their own.

Walsh argued that very little mercury from dental offices pollutes the environment. "Even without separators, dentists capture in their offices approximately 78% of the waste amalgam, with almost all of the remaining 22% captured by water treatment plans before the wastewater is discharged to surface water," he said. "In other words, approximately 99% of the amalgam is captured in the office or by the sewage treatment plant prior to discharge in rivers, streams, or lakes."

He argued that mandating separators nationwide would not be worth the expense of enforcement, since 0.4% of mercury in surface waters comes from dentistry and dentists are using less and less amalgam.

Nancy Stoner, an EPA deputy administrator, focused on the problem of mercury emitted into the air, which can happen directly from preparation of amalgam in dental offices (0.6 tons), when dental amalgam in sewage sludge is incinerated (0.6 tons), or when corpses with amalgam restorations are cremated (0.3 tons). Altogether she estimated that 1.5% of the 103 tons of mercury emitted annually into the U.S. air comes from dentistry.

Witnesses at the hearing gave estimates ranging from \$500 to \$2,000 of the cost of buying and installing an amalgam separator. Separators can catch 95% of the amalgam that goes down the drains in dental offices, according to the EPA.

But EPA scientist Alexis Cain, testifying as a private citizen, said he thought the agency had underestimated the emissions from crematoriums. By analyzing the amount of amalgam in each corpse, the emissions could be as much as 2 tons per year, instead of the 0.3 tons cited by Stoner, he said.

### **Passionate speeches**

One reason the air pollution is a problem is that the mercury ends up in water, where microorganisms can convert it to methylmercury, which accumulates in fish. When consumed by pregnant women, this form of mercury can damage the nervous systems of fetuses.

While sewage overflow, septic systems, sludge in landfill or spread on land, and other disposal of sewage grit and fines may also contribute to mercury pollution, Stoner said they are a lesser concern because heat is not applied to the amalgam, so mercury is less likely to be released.

Both Burton and Rep. Diane Watson (D-CA), influenced by personal experiences, gave impassioned statements about the problems of mercury pollution. Watson said her health had improved after she had amalgam fillings removed in Mexico, after her own dentist refused to remove them. She has repeatedly introduced legislation requiring dentists to inform patients that amalgam contains mercury.

Burton, who blames his grandchild's autism on mercury as an ingredient in a vaccination, said nothing containing mercury should be used in a human body.

The hearing ended with subcommittee members asking the EPA to respond in writing to questions about how the agency would prepare better estimates of the problem of mercury from cremation and incineration.

"As part of our 2010 effluent guidelines planning process, EPA intends to re-evaluate whether a rulemaking is appropriate," Stoner said. "EPA will be issuing its 2010 Program Plan late this calendar year and will specifically address this issue."

<http://theresma.spaces.live.com/blog/cns!80EE15D075B65A13!1712.entry>