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## Sushi kills your brain? Mercury contamination levels questioned

Posted on December 4, 2012 By [Global Post Health](#)



Although little risk has been detected in most types of fish, the authorities have long warned vulnerable groups, such as pregnant women and small children, to limit their consumption of certain species of big ocean predators.

BRUSSELS — Can eating too much sushi reduce your brain power? [Mercury contamination](#) in big fish such as sharks, swordfish and certain types of tuna is on the rise, and smaller traces of the toxic metal may be enough to cause restricted brain development or other health problems for humans who eat them, according to data released Tuesday.

“Levels of exposure that are defined as safe by the official limits, are actually having adverse effects,” said Dr. Edward Groth, author of one of two new reports published ahead of a United Nations conference on mercury pollution.

“These are not trivial effects, these are significant effects,” Groth, an adviser to the World Health Organization, told journalists in a web conference. “There does appear to be evidence now,

fairly persuasive evidence, that adverse effects occur from normal amounts of seafood consumption.”

Scientists have warned about the potential dangers of mercury in seafood since the 1950s when mercury-contaminated waste water was dumped in the sea from a factory in Minamata, Japan. Thousands suffered poisoning, which in extreme cases lead to insanity, deformation and death. Many children whose mothers had eaten contaminated fish were born with severe disabilities.

The mercury levels at Minamata were uniquely high, but since then scientists have sought to discover whether tiny traces of mercury found in seafood across the oceans could have an impact on the health of fish-eating humans.

## **Health concerns from mercury contamination**

Although little risk has been detected in most types of fish, the authorities have long warned vulnerable groups, such as pregnant women and small children, to limit their consumption of certain species of big ocean predators.

The European Union recommends pregnant or breastfeeding women not to eat tuna more than twice a week, while the US Food and Drug Administration says they should avoid shark, swordfish or king mackerel, although it says some tuna should be included in their diet.

Such guidelines are out of date and stricter rules are needed to avoid the risk that even low levels of mercury could lead to health issues such as impeded brain development in unborn children, according to the new reports which were produced by the Maine-based [Biodiversity Research Institute](#) and an international coalition of environmental campaign groups called the [Zero Mercury Working Group](#).

“Recent studies have found adverse effects below exposure levels considered ‘safe’ just a few years ago,” says one report. “Several of these studies clearly show that the consumption of ordinary amounts of fish with higher mercury levels can cause health risks to the developing foetus and children.”

The reports call for a new international benchmark for safe mercury consumption, at around one-quarter of the current US recommended dosage. The authors suggest some species with particularly high average mercury levels, like marlin or Pacific bluefin tuna be left off the menu altogether, while others such as grouper or albacore tuna should be limited to one meal a month.

The fisheries industry frequently counters that mercury reports as scare-mongering by environmentalists and says any risk from mercury more than outweighed by the health benefits of eating more fish.

## **Fish is good for your health**



Scientists have warned about the potential dangers of mercury in seafood since the 1950s when mercury-contaminated waste water was dumped in the sea from a factory in Minamata, Japan. Thousands suffered poisoning, which in extreme cases lead to insanity, deformation and death. Many children whose mothers had eaten contaminated fish were born with severe disabilities.

According to the [US National Fisheries Institute](#), there has never been a confirmed case of mercury toxicity in the [United States](#) through eating commercial seafood. In contrast, it says 84,000 Americans die every year due to a lack of the omega-3 fatty acid commonly found in fish.

The authors of the new report insist they are not seeking to persuade people to stop eating fish. Indeed they agree fish is essential for healthy brain development in young children and the unborn. However the caution consumers to be more picky about which species they put on their plates.

“We need to stress the benefits of eating fish and tell people they should continue to do that,” said Groth. “Pregnant women in particular can continue to eat fish, but as the evidence gets stronger that smaller doses of mercury can be harmful, consumers need to be better educated and more aware of which fish to choose.”

Over two two-thirds of all commercial fish species have low levels of mercury and should be eaten regular, the reports say. That includes haddock, salmon, cod, sardine, herring and sea bass.

The reports were released in preparation for a major event hosted by the UN in Geneva, Switzerland, next month which will attempt to draw up an international treaty to limit the use of mercury and eliminate the growing problem of mercury pollution.

“The level of mercury in the Pacific Ocean is projected to increase by 50 percent by 2050, if current pollution trends continue unabated,” Richard Gutierrez, executive director of Ban Toxics! a [Filipino](#) organization that is part of the zero mercury coalition.

“This is a wake-up call for all governments to stem the rising tide of mercury pollution and finalize a strong treaty.”

Scientists warn however that even if the treaty does introduce effective pollution controls, it could still take decades, even centuries, before some parts of the deep ocean will see major reductions in mercury levels.

“If we continue as we have been going with marine pollution, with time this is going to make it more and more difficult to find safe seafood,” says Philippe Grandjean, chair of environmental medicine at the University of Southern Denmark and professor at Harvard School of Public Health.

“I think the next generation would like us to do the best we can to clean up after ourselves to make sure that seafood in the long term is safe to consume and we are not polluting the brains of children in the next generation.”

Read more: <http://www.voxxi.com/mercury-contamination-levels-brain/#ixzz2EPiLVg2C>

[http://www.salon.com/2012/12/04/sushi\\_kills\\_your\\_brain/](http://www.salon.com/2012/12/04/sushi_kills_your_brain/)

[GlobalPost](#): Fish is often called brain food, but two new scientific reports sound an alarm about mercury levels and their effects on brain development. (Via [Salon](#).) – Patrick Farrell

<http://dinersjournal.blogs.nytimes.com/2012/12/05/what-were-reading-580/>

## Mercury In Fish More Dangerous Than Believed; Scientists Urge For Effective Treaty Ahead Of UN Talks (Report)

By [Dominique Mosbergen](#) Posted: 12/04/2012 5:29 pm EST Updated: 12/04/2012 6:05 pm EST

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Scientists say that consuming fish may be more hazardous to your health than you think, according to [new reports](#) published this week.

The reports, produced by the [Biodiversity Research Institute](#) and an international coalition of environmental campaign groups called the [Zero Mercury Working Group](#), say that mercury contamination of seafood is not only on the rise across the globe, but that "smaller traces of the toxic metal may be enough to cause restricted brain development or other health problems for humans who eat them."

"The more we look at mercury, the more toxic it is," David Evers, the executive director of BRI, told the Portland Press Herald. "[Threats from mercury are greater at lower levels](#) than we have thought in the past."

As the Global Post notes, scientists have long warned consumers about the [potential dangers of mercury in fish](#) and other seafood. However, the new reports have revealed that the guidelines for safe seafood consumption in place in the U.S., Europe and elsewhere may now be out of date.

“Levels of [mercury] exposure that are defined as safe by the official limits, are actually having adverse effects,” environmental health scientist Dr. Edward Groth, who authored one of the three reports, said at a web conference, according to the Post.

“These are not trivial effects, these are significant effects. There does appear to be evidence now, fairly persuasive evidence, that adverse effects occur from normal amounts of seafood consumption,” Groth, who is an adviser to the World Health Organization, continued.

One of the reports -- an [epidemiological overview on the effects of the toxic metal on brain development](#) -- also stressed that consumption of "everyday" amounts of fish with higher mercury levels can be damaging to the health of children and the developing fetus in a pregnant woman.

According to the National Wildlife Foundation, [mercury](#) can "adversely alter the neurological and reproductive systems of humans and wildlife." There is evidence, said the environmental group in a November report, that the dangerous pollutant is accumulating in more habitats and wildlife than previously thought.

However, on the other hand, the fisheries industry has oft-contended that such reports about mercury are merely a scare tactic used by environmentalists, stressing instead that any risk that may arise from consuming mercury-contaminated fish is usually far outweighed by the [health benefits](#) of doing so.

According to the U.S. National Fisheries Institute, for instance, there has "[never been a confirmed case of mercury toxicity in the United States](#) through eating commercial seafood. In contrast, it says 84,000 Americans die every year due to a lack of the omega-3 fatty acid commonly found in fish," the Global Post writes.

However, the authors of the new report insist that are not trying to convince people to stop eating fish. In fact, they agree that fish can be highly beneficial for one's health.

"Some people will stop eating fish and that would be a bad idea [because] fish is wonderful nutritionally," Groth told the Press Herald.

What *is* needed, he said, is for consumers to be "better educated and more aware of which fish to choose."

"The solution is not for people to stop eating seafood," one report states. "Instead, the [international community needs to reduce and where possible eliminate mercury pollution](#) entering our global environment, in order to eventually reduce mercury concentrations in fish. In the meantime, because fish consumption has major health benefits, people should eat plenty of fish and shellfish, but choose low-mercury varieties."

According to the report, about [70 percent of seafood contain relatively "low levels of mercury"](#) and can be eaten regularly. Cod, salmon, haddock, herring and sardines, for example, are considered "low mercury fish." Shrimp are also said to have low mercury levels. (Conversely, [swordfish, tuna and lobster](#) are said to have "mercury concentrations that commonly exceed safe levels.")

The reports, including one entitled "[Mercury in the Global Environment](#)," are part of a body of evidence being compiled for a major event hosted by the United Nations next year, during which an attempt will be made to draw up a global treaty to reduce mercury use and pollution.

The series of meetings, [scheduled to take place Geneva in January](#), will be the fifth, and potentially final, round of discussions before the treaty is finalized among participating nations.

“The [level of mercury in the Pacific Ocean is projected to increase by 50 percent by 2050](#), if current pollution trends continue unabated,” said Richard Gutierrez, executive director of Ban Toxics!, a Filipino organization that is part of the Zero Mercury coalition, according to a press release. “This is a wake-up call for all governments to stem the rising tide of mercury pollution and finalize a strong treaty.”

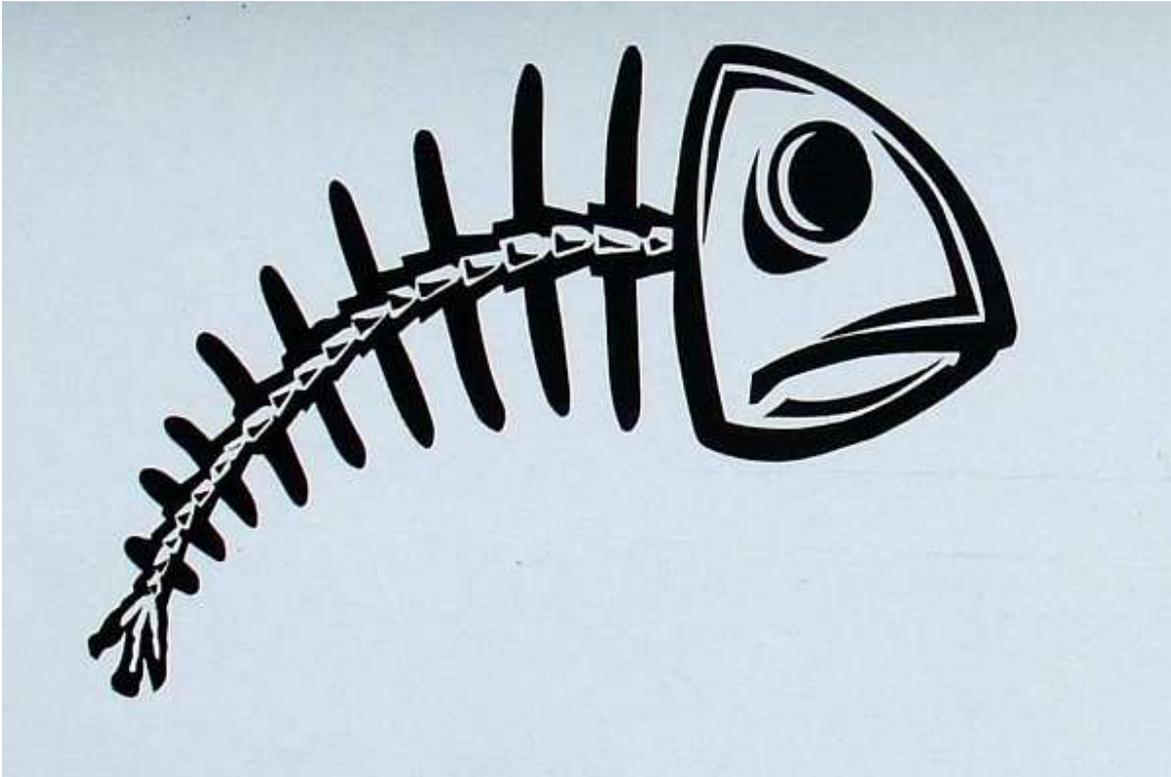
However, even if the treaty does introduce stricter pollution controls, scientists warn that it could still “take decades, even centuries, before some parts of the deep ocean will see major reductions in mercury levels.”

“If we continue as we have been going with marine pollution, with time this is going to make it more and more difficult to find safe seafood,” Philippe Grandjean, chair of environmental medicine at the University of Southern Denmark and professor at Harvard School of Public Health, told the Global Post. “I think the the next generation would like us to do the best we can to clean up after ourselves to make sure that seafood in the long term is safe to consume and [we are not polluting the brains of children in the next generation](#).”

[http://www.huffingtonpost.com/2012/12/04/mercury-in-fish-study-more-dangerous-treaty-un-talks\\_n\\_2238923.html](http://www.huffingtonpost.com/2012/12/04/mercury-in-fish-study-more-dangerous-treaty-un-talks_n_2238923.html)

## **Editorial Team, OneGreenPlanet.Org**

Hold the Sushi! Eating Fish Can Reduce Your Brain Power



According to [three new reports](#) released by [The Zero Mercury Working Group](#) (ZMWG) in cooperation with the [Biodiversity Research Institute](#) (BRI), mercury contamination of seafood is not only on the rise across the globe, but that “smaller traces of the toxic metal may be enough to cause restricted brain development or other health problems for humans who eat them.” The reports paint the first comprehensive, global picture of mercury levels in seafood.

“The more we look at mercury, the more toxic it is,” said Evers. “Threats from mercury are greater at lower levels than we have thought in the past.” David Evers, executive director of the institute and part of the U.N. Environment Programme Fate and Transport Partnership Group told the [Portland Herald Press](#).

According to findings in the report, Seafood regularly consumed by people contains mercury concentrations that commonly exceed “safe” levels, Several recent epidemiological studies clearly show that the consumption of ordinary amounts of fish can cause an unsafe risk to the developing foetus and children

[The Global Post reports](#) that the European Union recommends pregnant or breastfeeding women not to eat tuna more than twice a week. The US Food and Drug Administration says they should avoid shark, swordfish or king mackerel, although it says some tuna should be included in their diet. However, such guidelines are out of date and stricter rules are needed to avoid the risk that even low levels of mercury could lead to health issues such as impeded brain development in unborn children.

The reports were released in preparation for a major event hosted by the UN in Geneva, Switzerland, next month which will attempt to draw up an international treaty to limit the use of mercury and eliminate the growing problem of mercury pollution.

“The level of mercury in the Pacific Ocean is projected to increase by 50% by 2050 if current pollution trends continue unabated,” said Michael Bender, ZMWG co-coordinator [in a press release](#). “This is a wake-up call for all governments to stem the rising tide of mercury pollution and finalize a strong treaty.”

There’s another option....people could rconsider their love for seafood. There is no physiological need for humans to eat fish. Like all meat, fish has no magical property that can only be found in its flesh. Plants provide omega 3 fatty acids and protein without the saturated fat, cholesterol, possible mercury, heavy metals and destruction of the oceans that surely come with a meal of fish. Plants also provide a surplus of nutrients that are lacking in animal sources.

Fish is the number one way humans become contaminated with methyl mercury. The world’s leading mercury scientists have concluded that the risks posed by fish contaminated with mercury calls for a worldwide general warning to the public, especially to children and women of childbearing age. Also found in most fish are levels of PCBs, DDT, lead, dioxin, heavy metals, and a wide array of other toxins.

For more information about mercury in fish and how this potentially impacts your love for sushi, read this insightful article by Joseph Keon: “[Radiation and Mercury in Fish: Should Americans be Concerned?](#)”

*Image Source: [James Cridland/Flickr](#)*

<https://www.onegreenplanet.org/news/hold-the-sushi-eating-fish-can-reduce-your-brain-power/>

December 4

## **Gorham institute: Mercury in seafood more harmful than believed**

**“The more we look at mercury, the more toxic it is,” says the executive director for the Biodiversity Research Institute.**

By [North Cairn ncairn@pressherald.com](mailto:ncairn@pressherald.com)  
Staff Writer

A report to be released Tuesday by the Biodiversity Research Institute in Gorham evaluates the amount of mercury in fish species around the world and suggests that levels of the toxin previously deemed safe are probably not.

# Fish and mercury



**Fish with lower levels of mercury:**



**Salmon**



**Cod**

**Flounder**



**Fish with higher levels of mercury:**



**Marlin**

**Tuna**



**Mackerel**



**Swordfish**

**Grouper**

SOURCE: Biodiversity Research Institute, Gorham

STAFF GRAPHIC | MICHAEL FISHER

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The report, “Mercury in the Global Environment,” is part of evidence being compiled for talks next year on a proposed United Nations global treaty to reduce mercury use and pollution, said David Evers, executive director of the institute and part of the U.N. Environment Programme Fate and Transport Partnership Group, which is evaluating the worldwide data.

The report is the first to track data globally on fish species.

The institute’s data show two things: That mercury contamination of seafood is global in scope, and that negative health effects from methylmercury in seafood are occurring at levels below what was considered safe just a few years ago.

“The more we look at mercury, the more toxic it is,” said Evers. “Threats from mercury are greater at lower levels than we have thought in the past.”

The institute's report brings together evidence and documentation from studies of fish all over the world, said Evers. It shows that fish species from the Gulf of Maine are about "average" for mercury contamination, but not as toxic as some other large predatory species, he said.

Cod, salmon and flounder are considered "low mercury" fish, especially when compared to marlin, tuna, mackerel, swordfish and grouper, which all manifest high levels of mercury contamination, Evers said.

Some of these high-mercury varieties aren't found in the Gulf of Maine, but that doesn't mean state consumers can ignore the threat.

"The bad news is that there's a problem with mercury, and it's ubiquitous," said Deborah McKew, the institute's communications director. "You have to be careful what you eat."

Mercury "affects the immune system, alters genetic and enzyme systems, and damages the nervous system, including coordination and the senses of touch, taste and sight," according to the U.S. Geological Survey's fact sheet on the neurotoxin. "Methylmercury is particularly damaging to developing embryos, which are five to ten times more sensitive than adults."

Methylmercury is the organic form of mercury that most easily builds up in organisms and persists for long periods of time. Mercury enters the environment from many sources, from coal-burning plant emissions to dental fillings. It is also "bioaccumulative," which means it is stored in fatty tissue and builds up until it reaches toxic levels.

"There are adverse effects" for average consumption, said environmental health scientist and consultant Edward Groth of Pelham, N.Y., who authored the epidemiological study included in the Biodiversity Research Institute report.

"You can't get mercury out of fish; you have to teach people" which species are relatively safer than others, Groth said. "Some people will stop eating fish and that would be a bad idea (because) fish is wonderful nutritionally."

What is needed, Groth said, is a more current and clearer understanding of "acceptable intake" of mercury. The target exposure set by the U.S. Environmental Protection Agency in 1999 is not adequate, he said, and needs to reflect a broader knowledge base and greater epidemiological understanding.

"As we learn more about human exposure to chemicals ... (it) is not uncommon for guidelines to be lowered," said Amanda Sears, associate director of the Environmental Health Strategy

Center in Portland. Acceptable lead levels, for example, have been lowered several times over the past century as more became known about its potential harm.

The institute findings might also provide valuable information to populations in which there are greater “pockets of exposure,” she said.

“Mercury is a potent neurotoxin that can affect the way that children think, talk and walk,” said Emily Figdor, executive director of Environment Maine in Portland. “The good news is that the Obama administration has finalized strong new rules – which were more than 20 years in the making – to crack down on mercury emissions from power plants, the largest U.S. industrial source of the pollution. But much more can be done to move away from dirty energy sources that emit mercury and other harmful pollutants and transition to clean, renewable energy.”

Sources of mercury contamination in Maine include older landfills, Evers said, along with airborne contamination, primarily from out-of-state coal-fired power plants. Waste incineration plants, pesticides and other chemical compounds, along with some everyday household and medical products, also have been cited as sources.

The institute has been studying mercury levels for more than 15 years. It assesses emerging threats to wildlife and ecosystems and uses its findings to raise awareness and inform decisionmakers.

The U.N. meetings in January in Geneva will be the fifth, and potentially, final discussions prior to a legally binding agreement for participating nations.

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<http://www.pressherald.com/news/Gorham-institute-Mercury-in-seafood-more-harmful-than-believed.html>

## **Mercury in fish more harmful than believed, researchers say**

Irene Ogradnik, Global News : Tuesday, December 04, 2012 1:25 PM



, AP Photo

## RELATED



[Healthy seafood is sustainable seafood, scientists say](#)

- TORONTO – The current health benchmarks for mercury levels in fish are outdated and inadequate and should be strengthened worldwide, according to two international reports released on Tuesday.

Researchers at the [Biodiversity Research Institute](#) (BRI), a non-profit ecological research group, have released a new report that looks at the worldwide extent of mercury contamination in fish and other marine life, based on thousands of scientific reports collected from around the globe.

The report found that mercury contamination of fish and other marine life is global in scope.

“Mercury contamination is ubiquitous in global marine ecosystems and is

more severe than realized,” said Dr. David Evers, executive director and chief of BRI in a global web conference with journalists on Tuesday.

The second report, released by the [Zero Mercury Working Group](#)—an international coalition of environmental campaign groups—found that various marine organisms regularly harvested and consumed by people have mercury concentrations that exceed safety levels that were considered “safe” just years ago.

The reports paint the first comprehensive, global picture of mercury levels in seafood.

In January 2013, the fifth and final round of United Nations negotiations for a global mercury treaty is expected to take place in Geneva. The Governing Council of the United Nations Environment Programme (UNEP) is taking action to develop a global, legally binding treaty designed to monitor and regulate mercury emissions.

### **Mercury in marine life**

Globally, mercury concentrations are highest in large, long-lived pelagic species—like the marlin, Pacific bluefin tuna, the wide-ranging swordfish and the king mackerel—and commonly exceed safe levels, according to the BRI report.

Conversely, many commonly harvested species like shrimp, cod, haddock, herring, and sardines have low body burdens of mercury.

According to data from the [United Nations Food and Agriculture Organization](#) (FAO), nearly 40 per cent of the global fish production enters international markets for either direct consumption or food processing. Tuna is consistently among the top five commodities in the global fish market. Yellowfin, skipjack, and albacore are the most common species utilized by the tuna canning industry, while bluefin tuna is highly sought after for direct consumption.

For years, experts argued that mercury is a pollutant of global importance that adversely impacts ecological and human health. The consumption of marine shellfish, fish, and marine mammals represents one of the primary pathways through which humans are exposed to mercury.

### **The need for current and adequate guidelines**

According to experts and research, mercury and its compounds are highly toxic to humans, especially to the developing nervous system.

Methylmercury is the organic form of mercury that most easily builds up in organisms like marine life and can persist for long periods of time. According to the U.S. Environmental Protection Agency, exposure in the womb to methylmercury can impair neurological development. Experts claim this can result from a mother's consumption of fish and shellfish that contain methylmercury, which can adversely affect a baby's growing brain and nervous system.

For years, health experts advised the public to limit their consumption of marine life with high levels of mercury. Cod, salmon and flounder are considered "low mercury" fish, particularly when compared to marlin, tuna, mackerel, swordfish and grouper, which, according to the latest reports, all manifest high levels of mercury contamination.

The EU advises pregnant or breastfeeding women not to eat tuna more than twice a week, while Health Canada advises women who are or who may become pregnant or who are breastfeeding eat only up to four Food Guide Servings of canned albacore tuna each week.

The [U.S. Environmental Protection Agency recommends](#) people "should eat mainly types of fish low in mercury and limit your consumption of types of fish with typically higher levels of mercury."

"The current safety levels are based on science from a decade ago," said Dr. Edward Groth an adviser to the World Health Organization and the Food and Agriculture Organization on such issues as methylmercury in fish. "The reference dose is supposed to provide a margin of safety and it doesn't."

### **Health effects from mercury consumption**

In 2006, [a study from Poland](#) tested one-year-olds for cognitive and psychomotor development and found substantially delayed development in children with higher prenatal mercury exposure.

[A 2008 study](#) that looked at the relation between cord blood mercury levels and early childhood development found that fish eaten during pregnancy had substantial beneficial effects on cognitive development in children tested at 12, 24, 36 and 48 months of age, while elevated prenatal methylmercury exposure significantly adversely affected the same functions—psychomotor development, verbal and full IQ.

Researchers of both reports say that the health effects of fish consumption and research studying them are complicated by the fact that fish contains beneficial nutrients and that fish consumption during pregnancy and by young children is essential for brain development.

In fact, some studies have associated improved cognitive performance with elevated methylmercury levels, suggesting that the beneficial effects of fish nutrients were greater than the adverse effects of mercury in those cases.

"In research, beneficial effects of nutrients can hide the negative effects of mercury, and vice versa," read one report. "In risk management, women and children should not avoid fish or eat less fish—which could harm their health. Instead, they need guidance to choose low-mercury fish and shellfish."

Dr. Philippe Grandjean, professor and chair of environmental medicine at the University of Southern Denmark and an adviser to the Danish National Board of Health, said food agencies around the world have the responsibility to point consumers in the right direction instead of warning them about the wrong direction.

"We are taking developing brains hostage and we are allowing the pollutant to interfere with a very precious organ, " said Grandjean in the web conference on Tuesday.

According to the BRI report, about two thirds of the fish and shellfish on the market worldwide are very low in mercury and are safe to eat.

### **Mercury pollution**

[A 2012 study on mercury biogeochemical cycling](#) in the ocean and policy implications found that concentrations of mercury in the global environment have increased approximately threefold as a result of anthropogenic activities, and the world's oceans are one of the primary reservoirs where mercury is deposited.

[According to 2009 data](#) that looked at mercury sources and distribution in the North Pacific Ocean, present atmospheric mercury deposition rates will result in mercury concentrations doubling in the Pacific Ocean by 2050.

"Measures must be taken immediately to reduce mercury pollution in the global environment, which will eventually reduce concentrations in fish," said one report.

Even with strong actions by governments, it will take some time for mercury pollution to be reduced in the global environment said Groth.

"Mercury emissions do not seem to be reduced anytime soon," said Groth. "The system is broken and we cannot let it continue."

Read it on Global News: [Global Montreal | Mercury in fish more harmful than believed, researchers say](http://www.globalmontreal.com/mercury+levels+in+fish/6442765868/story.html)

<http://www.globalmontreal.com/mercury+levels+in+fish/6442765868/story.html>

## Science shows mercury has negative health impact at 'safe' levels

Scientists and NGOs push for strong legally binding global mercury treaty

4 December 2012 / Multinational bodies, Europe

Widespread global contamination of seafood from mercury is having negative health effects at levels below those that were considered “safe” just a few years ago, according to three reports published on Tuesday. The authors hope that the reports will ensure a strong legally binding global treaty on mercury comes out of ongoing discussions under the auspices of the UN.

Released by the Zero Mercury Working Group (ZMWG) in cooperation with the US-based Biodiversity Research Institute, the reports show that recent epidemiological studies reveal that the consumption of ordinary amounts of fish can cause an unsafe risk to the developing foetus and children. This suggests that current health exposure tolerance levels should be revised to reflect these scientific findings, say the groups.

“Limits defined as safe are actually having adverse effects [on neurodevelopment],” said Edward Groth from Stony Brook University, US, during a webinar held to launch the reports. “Consumers need to be much more aware” of the potential effects of methylmercury in fish and the need to eat fish with lower levels of the substance, such as scallops, shrimps or salmon, he said. Dr Groth acknowledged the complications surrounding the issue for consumers given that people around the world eat hugely differing amounts of fish and that in general people are told to eat fish for its nutritional benefits.

Philippe Grandjean, professor of environmental medicine at the University of Southern Denmark, drew attention to his studies, which have shown that a doubling of exposure to methylmercury is associated with a loss of 1.5 IQ points in children by the age of seven. “The seafood in a mother’s diet will result in the uptake of methylmercury, which will pass through placenta to the foetus,” he said during the webinar.

Dr Grandjean highlighted the potential health and economic impact of this drop in IQ. “In terms of life-time income each IQ point is worth around \$18,000,” he said. “This means that in the US [the results of] higher exposure [to methylmercury can be] estimated at \$5 billion.” He added that preliminary research in the EU suggests that this figure could be “twice as high.”

“Even if we are only talking about a few IQ points, and most children will still be in the normal IQ range, this is not enough... we want optimal brain functioning,” said Dr Grandjean. “Mercury toxicity is a key issue in environmental health. The conflict between our polluting behaviour and our next generation’s brain development is a message that needs to be conveyed.”

The scientists and NGOs want the reports, published today, to influence discussions during the fifth and final round of UN negotiations aimed at putting in place a legally binding global treaty to reduce mercury use and pollution ([CW 5 July 2012](#)). The legal text negotiated by the Intergovernmental Negotiating Committee is expected to be completed on 18 January 2013 in Geneva, Switzerland.

“It will take time before a mercury treaty comes into effect and mercury levels decrease, but this should not detract from the long-term goal to get them back to [safer] levels,” said Dr Grandjean. “If we continue as we have with mercury pollution, it will make it more and more difficult to find safe fish and this will have implications for human health and ecology.”

**Philippa Jones – Chemical Watch**

## **Advising on which fish to eat is short term solution to protect against mercury exposure**

A US study has concluded that issuing public health advice on fish consumption is the best short-term solution to reducing people's exposure to mercury contamination. Reducing mercury emissions at source is considered a longer-term solution. Health advice should be targeted towards populations at greatest risk and consider the pollution levels of the water from which the fish came.

[\(more...\)](#) [Download article \(PDF\)](#)

## **Call for stricter safe mercury intake levels**

ENDS Europe

Tuesday 4 December 2012

National governments and the World Health Organization (WHO) should lower their acceptable intake levels for mercury in fish as they are based on outdated scientific evidence, says NGO coalition the Zero Mercury Working Group.

Several recent studies show that consumption of ordinary amounts of fish with higher mercury levels, such as swordfish or king mackerel, can cause health risks to pregnant women and children. The US government [recommends](#) avoiding eating these fish.

A review of epidemiological evidence conducted for the Zero Mercury Working Group gives detail on the health impacts of mercury in fish and presents the rationale for lowering existing acceptable intake levels.

Even the US reference dose, which is more stringent than the WHO standard applied in the EU, should be significantly lowered, say the NGOs.

In the EU, European food safety agency EFSA says it is currently reviewing existing safe levels and an opinion will be published before the Christmas break.

To reduce mercury concentrations in fish, emissions of the heavy metal must be further reduced, they add. The NGOs intend to put pressure on governments ahead of the next round of talks on a legally binding international agreement to cut mercury consumption and emissions, which will take place in Geneva next month.

The agreement should be finalised in January, ready to be signed by governments in October. Little progress was made during the [previous round](#) of talks.

A new draft text was circulated by the talks' chair last month. Uncertainties remain over a number of issues such as finance and whether the agreement will cover to emissions from the oil, gas and ferrous metals industries.

An EU negotiator was reluctant to detail Europe's stance because "now is a sensitive stage". But she did say the EU hoped the treaty would be strengthened over time.

## A New Global Picture on Mercury in Fish

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Posted December 4, 2012

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Most people have heard warnings to limit or avoid eating certain kinds of fish that may have relatively high levels of mercury. Today the Biodiversity Research Institute released a new [report](#), compiled from scientific studies around the globe, that paints a more comprehensive picture than ever of widespread mercury contamination in fish and other marine life, including species that are popular on our dinner plates.

But complicating this picture is the fact that fish is a very healthy food – a source of lean protein and heart-healthy omega 3s – so it's smart to make fish a regular part of your diet. To balance the benefits with possible mercury risks, people are often told to eat more fish but to choose low-mercury varieties.

While this is good advice, it frames the issue in the wrong way. Instead of balancing mercury exposure against the nutritional benefits, how about we stop polluting fish with mercury in the first place! Thousands of tons of mercury pour into the global environment every year, with big contributions from coal-fired power, metal mining and processing (especially small scale gold mining), and cement production. Mercury is also still found in some consumer products and in old-fashioned industrial processes. (Remember mercury thermometers? They're hard to find now in the US but still popular in developing countries).

The US has come a long way in the past decades to address its own sources of mercury pollution but the US can't solve this problem on its own. That's because mercury is a global pollutant—it can travel through the atmosphere to a location thousands of miles away from where it is emitted, without respect or regard for national boundaries.

Fortunately the world community has come to grips with the global nature of the mercury problem and since 2009 has been negotiating an international agreement to control mercury pollution. So far the negotiations have been slow going. What's the hold up? We already have the technology to manage mercury pollution -- we know how to control mercury emissions, and there are mercury-free alternatives for nearly all mercury-containing products and industrial processes. What's missing is an aggressive and coordinated effort among nations to put these controls and alternatives in place. The final treaty negotiation session, scheduled for January in Geneva, is the last chance for countries to create a strong framework of international law against mercury pollution. Fish lovers everywhere will be watching closely.

[http://switchboard.nrdc.org/blogs/skeane/a\\_new\\_global\\_picture\\_on\\_mercur.html](http://switchboard.nrdc.org/blogs/skeane/a_new_global_picture_on_mercur.html)

## Evidence shows mercury threat underestimated ahead of UN treaty

BRUSSELS, Dec. 4, 2012 /PRNewswire-USNewswire/ -- New reports released today show widespread global mercury contamination of seafood and health effects from methylmercury in seafood occurring below the level that was considered "safe" just a few years ago. The Zero Mercury Working Group (ZMWG) [1], in cooperation with the Biodiversity Research Institute (BRI) [2], is facilitating the release of the three reports.

*"The level of mercury in the Pacific Ocean is projected to increase by 50% by 2050 if current pollution trends continue unabated,"* said Michael Bender, ZMWG co-coordinator. *"This is a wake-up call for all governments to stem the rising tide of mercury pollution and finalize a strong treaty."*

The new scientific findings are to be presented at the start of the fifth and final round of United Nations negotiations to put in place a legally binding global treaty to reduce mercury use and pollution. The legal text negotiated by the Intergovernmental Negotiating Committee is expected to be completed on 18 January 2013 in Geneva, Switzerland.

*"The latest science points to the need for strict reduction measures to address the global mercury crisis,"* said Elena Lymberidi-Settimo, co-coordinator of ZMWG at the European Environment Bureau in Brussels, Belgium.

Other key science findings include the following:

- Larger predatory fish—such as swordfish, shark and certain species of tuna— are often listed in national fish consumption advisories due to higher mercury concentrations. Different seafood varieties can differ by at least 100-fold in their average mercury content.
- Seafood regularly consumed by people contains mercury concentrations that commonly exceed "safe" levels (based upon US EPA standards). However, there are also plenty of low mercury seafood alternatives with high omega 3 benefits;
- Several recent epidemiological studies clearly show that the consumption of ordinary amounts of fish can cause an unsafe risk to the developing foetus and children, suggesting that the current health exposure tolerance levels should be revised to reflect the latest scientific findings; and

- BRI's Global Biotic Mercury Synthesis (GBMS) project provides a standardized and comprehensive database that can be used to identify mercury data gaps, describe areas where further research is needed, and evaluate the effectiveness of the future global mercury treaty.  
*"We believe it is crucial to understand global baseline mercury concentrations in order to make appropriate decisions on how to evaluate the effectiveness of the treaty,"* David C. Evers, Ph.D., executive director of BRI and a member of the UNEP Fate and Transport Partnership Group.

[1] [Zero Mercury Working Group; www.zeromercury.org](http://www.zeromercury.org)

[2] [Biodiversity Research Institute's ; www.briloon.org](http://www.briloon.org)

SOURCE Zero Mercury Working Group

#### RELATED LINKS

<http://www.zeromercury.org>

<http://www.prnewswire.com/news-releases/evidence-shows-mercury-threat-underestimated-ahead-of-un-treaty-talks-182009941.html>

## Health fears as mercury in fish rises

Updated: 13:51, Friday December 7, 2012



Mercury contamination in large fish such as sharks, swordfish and certain types of tuna is rising and could be more harmful than previously thought, experts say.

Smaller traces of the toxic metal in consumed fish may be enough to cause restricted brain development or other health problems, according to data released this week.

Dr Edward Groth, an adviser to the World Health Organisation and author of one of two reports published, says current levels of exposure defined as safe are having adverse effects.

The European Union recommends pregnant or breastfeeding women not to eat tuna more than twice a week while the US Food and Drug Administration suggests avoiding shark, swordfish or king mackerel but says some tuna is okay.

The new reports say these guidelines are out of date and stricter rules are needed to avoid the risk that even low levels of mercury could lead to health issues such as impeded brain development in unborn children.

The authors suggest some species like marlin or Pacific bluefin tuna be left off the menu altogether, while others such as grouper or albacore tuna should be limited to once a month.

<http://www.skynews.com.au/health/article.aspx?id=824091>

*National / Health*



## Too much tuna can turn the mind to salad

by Sarah Wild, 27 December 2012, 08:06 | [1 Comments](#)

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Tuna. Picture: THINKSTOCK

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EATING too much fresh tuna, salmon, swordfish and shellfish risks exposure to high levels of mercury, scientists warn.

Mercury is associated with damage to the central nervous system and exposure during foetal development may cause severe mental retardation, birth defects and foetal death. Vulnerable people include pregnant women, children and women planning pregnancies.

Predatory fish such as tuna and sharks live longer and eat grazer fish — which live on mainly plants containing low levels of mercury — and the heavy metal accumulates in their bodies.

A recent report by the Zero Mercury Working Group, a coalition of 95 nongovernmental organisations including groundWork in South Africa, warned that global mercury contamination of seafood and the health effects from methyl mercury in seafood were above the “safe” level.

The report was submitted to the United Nations climate change talks earlier this month.

“The level of mercury in the Pacific Ocean is projected to rise 50% by 2050 if current pollution trends, such as emissions from Eskom’s coal-fired power plants, continue unabated,” says Rico Euripidou, groundWork environmental health campaigner.

Eskom says it has measures in place that contribute to reducing mercury emissions from its coal-fired power stations. These include fabric filter plants as well as flue gas desulphurisation plants that will be installed at new power stations such as Kusile.

Eskom calculates mercury emissions from its coal-fired power stations based on the mercury content and the amount of coal burned, as well as the installed emissions control technologies installed at the power stations.

It has undertaken regional air-quality monitoring since the late 1970s as part of its ambient air quality management programme. Currently there are two Eskom ambient monitoring sites that measure mercury — one in Elandsfontein in Mpumalanga and another in Marapong, Limpopo. South Africa’s ambient air quality is affected by emissions from a number of natural, domestic and industrial sources, including Eskom.

Although there is no legislation governing atmospheric mercury emissions in South Africa, Eskom says it will support the development of legislation in South Africa that aims to reduce total mercury emissions. In addition, Eskom continues to participate and contribute to research activities of the South African Mercury Association.

Miriam Moswaane, spokeswoman for the National Regulator for Compulsory Specifications, says the watchdog does not consider the public to be at risk from most fish species.

“However, individuals with a very high affinity for shark, swordfish or older specimens of some other types of predatory fish, may be at risk,” she said recently.

The regulator advises general consumers of species with a high mercury risk to limit their consumption to one meal a week, and pregnant women and young children to one meal a month.

“Pregnant women, nursing mothers and young children are also advised to rather eat fish that are lower in mercury and ... to eat moderate quantities (of about) 350g per week,” it says.

Mercury occurs naturally in the environment but could also be released into the air through industrial pollution. It accumulates in streams and oceans, where it is turned into methylmercury.

Regulation 500 of the Foodstuffs, Cosmetics and Disinfectants Act sets the maximum regulatory level of mercury in shellfish at 0.5mg/kg, and for methylmercury in predatory fish, including shellfish, at 1mg/kg.

Mercury pollution could come from a number of sources, including waste incinerators, cement production and coal combustion, says the Western Cape environmental affairs department.

The US Food and Drug Administration says methylmercury does leave the body, but it can take up to a year for levels to drop.

A 2009 report by the Council for Scientific and Industrial Research recommended that “subsistence fishermen along the South African coastline should be warned to limit their intake of locally caught fish due to the potential of mercury poisoning”.

James Dabrowski, a principal researcher at the council, says the risks have to be carefully gauged. “There are mercury emissions, but you can’t say that we’re all going to die. It only becomes toxic once it is methylated, and there have to be conditions for that to happen,” he says.

Prof Louw Hoffman of the University of Stellenbosch’s animal sciences faculty says the university is about to begin a study of methylmercury in seafood. “Few labs can measure methylmercury and we’re finalising a technique,” he says.

<http://www.bdlive.co.za/national/health/2012/12/27/too-much-tuna-can-turn-the-mind-to-salad>

## **Call for stricter safe mercury intake levels**

ENDS Europe

Tuesday 4 December 2012

National governments and the World Health Organization (WHO) should lower their acceptable intake levels for mercury in fish as they are based on outdated scientific evidence, says NGO coalition the Zero Mercury Working Group.

Several recent studies show that consumption of ordinary amounts of fish with higher mercury levels, such as swordfish or king mackerel, can cause health risks to pregnant women and children. The US government [recommends](#) avoiding eating these fish.

A review of epidemiological evidence conducted for the Zero Mercury Working Group gives detail on the health impacts of mercury in fish and presents the rationale for lowering existing acceptable intake levels.

Even the US reference dose, which is more stringent than the WHO standard applied in the EU, should be significantly lowered, say the NGOs.

In the EU, European food safety agency EFSA says it is currently reviewing existing safe levels and an opinion will be published before the Christmas break.

To reduce mercury concentrations in fish, emissions of the heavy metal must be further reduced, they add. The NGOs intend to put pressure on governments ahead of the next round of talks on a legally binding international agreement to cut mercury consumption and emissions, which will take place in Geneva next month.

The agreement should be finalised in January, ready to be signed by governments in October. Little progress was made during the [previous round](#) of talks.

A new draft text was circulated by the talks' chair last month. Uncertainties remain over a number of issues such as finance and whether the agreement will cover to emissions from the oil, gas and ferrous metals industries.

An EU negotiator was reluctant to detail Europe's stance because "now is a sensitive stage". But she did say the EU hoped the treaty would be strengthened over time.

Elena Lymberidi-Settimo of green group EEB said the EU wants its own restrictions on mercury in products and processes extended globally. \*

*\*The last sentence of this paragraph was removed on 05/12/2012*

Follow-up:

[NGO press release](#)

([http://www.zeromercury.org/phocadownload/Developments\\_at\\_UNEP\\_level/INC5/Mercury\\_Seafood\\_PR\\_ZMWG\\_BRI\\_EEB\\_Final.pdf](http://www.zeromercury.org/phocadownload/Developments_at_UNEP_level/INC5/Mercury_Seafood_PR_ZMWG_BRI_EEB_Final.pdf)) plus reports on [sealife](#)

([http://www.zeromercury.org/phocadownload/Developments\\_at\\_UNEP\\_level/INC5/embargoed%20draft%20120312%20patterns%20of%20global%20seafood.pdf](http://www.zeromercury.org/phocadownload/Developments_at_UNEP_level/INC5/embargoed%20draft%20120312%20patterns%20of%20global%20seafood.pdf)) and [human health](#)

([http://www.zeromercury.org/phocadownload/Developments\\_at\\_UNEP\\_level/INC5/groth\\_report\\_zmwg%20rev.pdf](http://www.zeromercury.org/phocadownload/Developments_at_UNEP_level/INC5/groth_report_zmwg%20rev.pdf)) and recommendations

([http://www.zeromercury.org/phocadownload/Developments\\_at\\_UNEP\\_level/INC5/zmwg\\_summary\\_recommendations\\_final.pdf](http://www.zeromercury.org/phocadownload/Developments_at_UNEP_level/INC5/zmwg_summary_recommendations_final.pdf)) . See also Geneva mercury talks [webpage](#)

(<http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC5/tabid/3471/Default.aspx>) and draft negotiating text

([http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/INC5/5\\_3\\_e\\_text.pdf](http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/INC5/5_3_e_text.pdf))

### **Science shows mercury has negative health impact at 'safe' levels**

Scientists and NGOs push for strong legally binding global mercury treaty

4 December 2012 / Multinational bodies, Europe

Widespread global contamination of seafood from mercury is having negative health effects at levels below those that were considered “safe” just a few years ago, according to three reports published on Tuesday. The authors hope that the reports will ensure a strong legally binding global treaty on mercury comes out of ongoing discussions under the auspices of the UN.

Released by the Zero Mercury Working Group (ZMWG) in cooperation with the US-based Biodiversity Research Institute, the reports show that recent epidemiological studies reveal that the consumption of ordinary amounts of fish can cause an unsafe risk to the developing foetus and children. This suggests that current health exposure tolerance levels should be revised to reflect these scientific findings, say the groups.

“Limits defined as safe are actually having adverse effects [on neurodevelopment],” said Edward Groth from Stonybrook University, US, during a webinar held to launch the reports. “Consumers need to be much more aware” of the potential effects of methylmercury in fish and the need to eat fish with lower levels of the substance, such as scallops, shrimps or salmon, he said. Dr Groth acknowledged the complications surrounding the issue for consumers given that people around the world eat hugely differing amounts of fish and that in general people are told to eat fish for its nutritional benefits.

Philippe Grandjean, professor of environmental medicine at the University of Southern Denmark, drew attention to his studies, which have shown that a doubling of exposure to methylmercury is associated with a loss of 1.5 IQ points in children by the age of seven. “The seafood in a mother’s diet will result in the uptake of methylmercury, which will pass through placenta to the foetus,” he said during the webinar.

Dr Grandjean highlighted the potential health and economic impact of this drop in IQ. “In terms of life-time income each IQ point is worth around \$18,000,” he said. “This means that in the US [the results of] higher exposure [to methylmercury can be] estimated at \$5 billion.” He added that preliminary research in the EU suggests that this figure could be “twice as high.”

“Even if we are only talking about a few IQ points, and most children will still be in the normal IQ range, this is not enough... we want optimal brain functioning,” said Dr Grandjean. “Mercury toxicity is a key issue in environmental health. The conflict between our polluting behaviour and our next generation’s brain development is a message that needs to be conveyed.”

The scientists and NGOs want the reports, published today, to influence discussions during the fifth and final round of UN negotiations aimed at putting in place a legally binding global treaty to reduce mercury use and pollution (CW 5 July 2012). The legal text negotiated by the Intergovernmental Negotiating Committee is expected to be completed on 18 January 2013 in Geneva, Switzerland.

“It will take time before a mercury treaty comes into effect and mercury levels decrease, but this should not detract from the long-term goal to get them back to [safer] levels,” said Dr Grandjean. “If we continue as we have with mercury pollution, it will make it more and more difficult to find safe fish and this will have implications for human health and ecology.”

**Philippa Jones - Chemical Watch**

## Group pushes mercury phaseout, ban

<http://businessmirror.com.ph/index.php/news/nation/7342-group-pushes-mercury-phaseout-ban>

THE group Ban Toxics reiterated on Monday its call to governments around the world to phase out and eventually ban the use of mercury to prevent its harmful effect to human health and the environment.

“After more than a decade of studies, discussions and debate, the time for bold and corrective action to stop global mercury pollution has come—and all it takes is political will on the part of governments around the world to come up with a binding agreement that will phase out, and eventually ban, the use of the toxic chemical for good,” Richard Gutierrez, executive director of Ban Toxics, said.

Gutierrez made the appeal in time for the international conference on mercury pollution to be held in Geneva, Switzerland, from January 10 to 13.

Gutierrez said that since 2001, countries around the world have discussed the rising tide of global mercury pollution and, in 2003, the United Nations agreed that enough was known to “...warrant immediate action to reduce global mercury pollution.”

Since then, new scientific evidence has emerged for the first time correlating rising mercury levels in the oceans with the growth in pollution and also projecting a 50-percent increase in mercury levels by 2050 in the Pacific Ocean if current pollution trends continue unabated, he said.

Gutierrez said mercury levels have already risen threefold over the last few centuries owing to increases in primary mercury mining, coal burning for fuel and mercury uses in products, processes and in artisanal and small-scale gold mining.

Moreover, he said new scientific evidence on worldwide mercury seafood contamination now document an even greater global reach of this neurotoxin, with health effects occurring below the level considered "safe" just a few years ago.

Such scientific evidence, he said, demonstrates that the mercury threat has grown substantially since the turn of the century and, as a result, the world governments need to step up their efforts to reduce global mercury pollution.

He said that in 2009, the United Nations General Assembly on the Environment adopted a decision to develop a legally binding instrument on mercury, possibly in the form of a treaty.

The treaty is expected to include actions to reduce, among others, mercury supply, trade, its use in products and processes, and atmospheric mercury emissions, which will ultimately reduce human exposure to mercury globally.

However, progress on reducing mercury emissions from coal-fired power plants has been tremendously slow, and other critical pieces to the treaty are still missing.

Also of vital importance to developing countries is the issue of financing to help them comply with treaty obligations, he noted.

He added that the meeting in Geneva, Switzerland, may be the last chance for leaders to come up with a binding document that will altogether lead to the phaseout and ban of the use of mercury.

"The world community can address the global mercury crisis sooner than later. The technology is widely available to manage mercury pollution from emissions controls to mercury-free alternatives for nearly all mercury-containing products and industrial processes. The only thing missing is the political will to make the necessary commitments to safeguard our children and future generations," Gutierrez said.

Ban Toxics came up with a list of what it described as "critical elements" that need to be in the treaty that will lead to the phaseout and ban of mercury.

These include binding obligations on emissions and releases with appropriate thresholds; prior informed consent controls are present in the supply and trade provisions; early phaseout dates for covered mercury products and processes; restriction on the trade of mercury to small-scale mining destinations;

Binding requirements for the storage and disposal of mercury; dedicated fund to ensure adequate resources are available to developing countries to facilitate compliance with the treaty and discourage non-compliance; sequestration of mercury coming out of the chlor-alkali industry; and provision for developing and implementing health-based guidelines and risk communication strategies to protect vulnerable populations and indigenous people from mercury pollution.

Gutierrez said the final treaty negotiation session in Geneva is “our last chance to create a strong program for international action and cooperation.”

[Home](#) » Negative impacts of Mercury on environment and health

## Negative impacts of Mercury on environment and health

ISLAMABAD (MEDIA)

Deliberating on negative impacts of Mercury on environment and health, the speakers at SDPI panel discussion said that our world deserve a zero Mercury now. They highlighted that final round of international treaty negotiations (INC-5) on Mercury in Geneva in mid-January 2013 are “***Our World’s Last Chance***” to cooperate in creating a strong international action on reducing Mercury emissions, trade and use.

They were speaking at panel discussion “Regulating Global Mercury Uses and Releases Control: Intergovernmental Negotiating Committee Fifth Meeting (INC-5) – Issues and Concerns for Pakistan” organised by Sustainable Development Policy Institute (SDPI) in collaboration with international Zero Mercury Working Group (ZMWG) here on Monday.

Chairing the session, Eng. Asif Shuja Khan, Director General, Environmental Protection Agency (EPA) informed that government is launching the National Mercury Reduction Program under which all the mercury sources in Pakistan would be indentified & an inventory would be made. He also appreciated SDPI for valuable work on the subject and invited SDPI to join EPA in the said program.

Dr. Mahmood A. Khawaja, SDPI Senior Advisor, gave detailed information about mercury, which is contained in coal and other minerals, is released into the air mainly from thermal power plants and metal-smelting facilities. He informed that In 2009, the United Nations General Assembly on environment adopted a decision to develop a legally binding instrument on mercury. So an Intergovernmental Negotiating Committee (INC) was formed, whose fifth and final meeting is scheduled to be held in Geneva in mid-January 2013 to draft a treaty aimed at preventing mercury [pollution](#).

He said that participants in Geneva will try to reach an agreement to limit the use of the toxic substance and its emissions into the atmosphere. However, emerging countries are seeking flexibility partly by allowing each nation to compile an emissions cut plan according to its own domestic circumstances. They are also asking for financial assistance from developed countries for the development of necessary technologies. He emphasized the need for mandatory provision for country national implementation plan (NIP).He added that the proposed treaty in Geneva may

also call for limiting the use of [mercury](#) for certain products and at chemical plants, with an appropriate time period exemption prior to implantation of the treaty provisions..

He suggested that the technology is widely-available to manage mercury pollution from emissions controls to mercury-free alternatives for nearly all mercury-containing products and industrial processes. What's needed is the political will to make the necessary commitments to safeguard our children and future generations from mercury exposure.

Syed Zaheer Ahmed Gillani, Executive Director/NPM, Ministry of Climate Change suggested that Pakistan should take position at INC-5 that our compliance with obligations relating to control measures are conditional to developed nations compliance with obligations relating to provisions of financial and technical assistance as well as technology transfer. He added that while Pakistan, in principle supports elimination/phase out of all hazardous substances, including mercury, there is need to ensure that international decisions do not create sudden shocks and losses to our Industry, agriculture, defense, business and Trade. He also briefed that efforts are being made at global level to devise effective instruments for elimination of mercury use in products and processes used in industry and agriculture. "Currently the International community is engaged in extensive debate about options for improved international governance", he added.

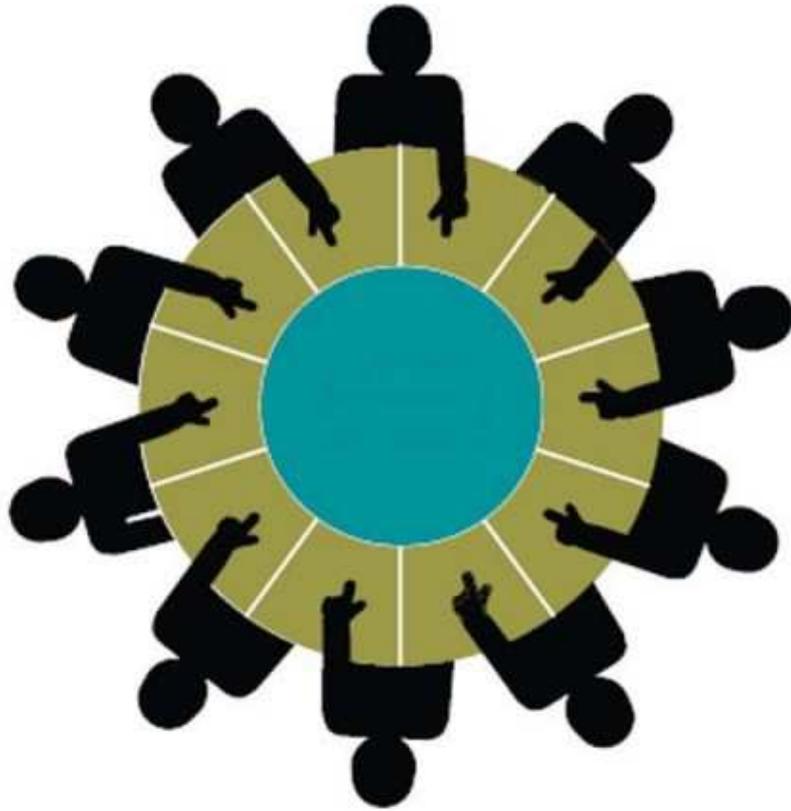
<http://www.eninfo.com/index.php/2013/01/negative-impacts-of-mercury-on-environment-and-health/>

### **Panel discussion: Make Pakistan mercury-free says experts**

Discuss global efforts underway to devise alternatives for products containing mercury.

By [Our Correspondent](#)

Published: January 8, 2013



Khwaja stresses that technology to manage mercury pollution and mercury-free alternatives should be widely available.

**ISLAMABAD:**

**Experts discussed ways to eliminate the use of mercury in industrial and agricultural processes in compliance with international standards at a panel discussion on Monday.**

Pakistan, in principle, supports the elimination of all hazardous substances, including mercury, but local industry and agriculture should not be affected by international decisions, said Zaheer Ahmed Gillani, national programme manager at the Ministry of Climate Change. The discussion, “Regulating Global Mercury Uses and Releases Control: Intergovernmental Negotiating Committee Fifth Meeting (INC-5) – Issues and Concerns for Pakistan,” was held at Sustainable Development Policy Institute.

Gillani suggested that Pakistan should take the position that their compliance with obligations relating to control measures are conditional to developed nations’ compliance with obligations relating to provision of financial and technical assistance as well as technology transfer.

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” Our compliance to obligations relating to control measures are conditional to provision of financial and technical assistance  
Ministry of Climate Change NMP Zaheer Ahmed Gillani

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SDPI Senior Advisor Mahmood A Khawaja said coal and other minerals contain mercury which is released in the air mainly from thermal power plants and metal-smelting facilities. He stated that in 2009, the United Nations General Assembly on Environment decided to develop a legally binding instrument on mercury.

At the INC-5 in Geneva, participants will try to reach an agreement on limiting the use of mercury and its emissions. Khwaja stressed the need for mandatory national implementation plan.

He suggested that technology to manage mercury pollution and mercury-free alternatives should be widely available.

Efforts are underway around the world to devise effective instruments for eliminating mercury in products and processes used in industry and agriculture. “Currently the international community is engaged in extensive debate about options for improved international governance,” he added.

Pakistan Environmental Protection Agency Director General Eng. Asif Shuja Khan stated that the government plans to launch the National Mercury Reduction Programme.

*Published in The Express Tribune, January 8<sup>th</sup>, 2013.*

<http://tribune.com.pk/story/490851/panel-discussion-make-pakistan-mercury-free-says-experts/>