

# Lead contamination levels drop in Canadians : StatsCan

*Wednesday, November 19, 2008 / 10:42 AM*

[CBC News](#)

Lead levels in the blood of Canadians have dropped dramatically over the last 30 years. In 2007-08 less than 1% of Canadians aged 6-79 had lead blood levels above guidelines, Statistics Canada said Wednesday. The average blood lead concentration in Canadians 6 - 79 was 1.37 micrograms per decilitre.

When blood levels of lead were last measured in 1979, 25% of Canadians 6 and older had lead concentrations above 10 micrograms per decilitre — the threshold level above which follow-up actions may be needed to

The phasing out of leaded gasoline, lead-based paints and lead solder in cans since the 1970s likely helped reduce lead levels in blood, according to the report.

Lead plumbing, food grown in lead-contaminated soil, and products that contain lead or lead-based paints are possible sources of exposure today.

## **Mercury, cadmium levels measured**

For blood mercury concentrations, less than 1% of Canadians aged 20 to 79 had concentrations above current Health Canada's thresholds for adults which is set at 20 micrograms per liter.

The average blood mercury level of Canadians 6 - 79 in 2007-08 was 0.76 micrograms per liter, the results showed.

Eating fish and seafood is the primary way the general population is exposed to methylmercury, the main contaminant measured.

The report's authors said chronic exposure to methylmercury may cause:

- Numbness and tingling in the extremities.
- Blurred vision.
- Deafness.
- Lack of muscle co-ordination and intellectual impairment.
- Harmful effects on the cardiovascular, gastrointestinal and reproductive systems.

About 5,000 Canadians had their blood and urine tested as part of the study. Participants also had a series of physical exams and fitness tests.

Canadians also had measurable levels of cadmium in their blood, which were in line with the levels found in the American and German populations and don't appear to pose a health threat, the agency said.

The main source of exposure for cadmium, other than occupational exposure, is through smoking, the report's authors said. Diet and drinking water were other sources.

Chronic exposure to cadmium may cause kidney damage, bone mineral density loss and hypertension, according to the report.

# Recalled toys with lead contamination on sale on internet

Consumers warned to be cautious of what they're buying online

Monday, November 19, 2007 | 5:44 PM

[CBC News](#)

Hundreds of toys that have been recalled because they're contaminated with lead paint are showing up for sale on the internet, the Consumers' Association of Canada says.

And with many parents looking to shop online for the holidays, the association is warning parents to be cautious before purchasing anything.

The toys, which were manufactured in China with lead paint, include everything from the highly popular Thomas the Tank Engine to Barbie accessories to Geo-Trax.

The latest warning comes after Health Canada urged consumers earlier this year not to buy the toys at stores.



*Fisher-Price recalled thousands of Geo Trax Locomotive toys in September due to violations of lead paint standards. (U.S. Consumer Product Safety Commission )*

But Bruce Cran of the consumers' association said it appears some people who bought the toys are now reselling them on popular websites.

"It's increasing each week and there's hundreds of them, if not thousands of items of these type for sale on Craigslist and eBay," Cran said on Friday in Vancouver. "There's no return policy with those sites and you could end up with toys with lead."

Cran said Health Canada should be doing more to protect consumers.

"Health Canada should be actively seeking some remedy to this. Records should be kept and there should be a follow-up to make sure these toys come off the shelves so that they're not re-circulated for sale," he said.

"None of these recalls have been initiated by any Canadian agency. They're actually voluntary recalls.

"There's no supervision for what actually happens to that stuff after it goes back, and these are the goods that are now available on the internet, and we're very concerned about that aspect of it," Cran added.

Health Canada could not be reached for comment, but the government department's website lists the toys that have been recalled.

Read more: <http://www.cbc.ca/consumer/story/2007/11/19/bc-recalledtoysforsale.html#ixzz145Ef2qTv>

# BPA contaminants found in most Canadians

Monday, August 16, 2010 / 10:36 PM

[CBC News](#)

More than 90% of Canadians have detectable levels of bisphenol A (BPA), a chemical used to make some hard plastic containers, bottles and toys, a new report suggests.

Statistics Canada released the finding Monday as part of the results of its survey measuring the levels of various contaminants in the urine and blood of Canadians aged 6 to 79.

*Many stores in Canada now sell BPA-free baby bottles.*  
(Chris Wattie/Reuters)

BPA is an industrial chemical used to make polycarbonate plastic for water bottles and food containers as well as the protective lining in metal cans. It does not occur naturally in the environment.



"With 91 per cent of Canadians with detectable concentrations, we can certainly say that people are exposed probably on a regular basis," said report author Tracey Bushnik of Statistics Canada's health analysis division in Ottawa.

**What is BPA?** It is a chemical compound found in some hard, clear, lightweight plastics and resins. It's used in the production of various types of food and drink containers, compact discs, electronics and automobile parts, and as a liner in some metal cans. Animal studies suggest that, once ingested, BPA may imitate estrogen and other hormones, according to the U.S. National Institutes of Health.

Some studies on animals suggest that low levels of exposure to BPA very early in life can affect brain development and behaviour, but scientists are unsure how these findings might be relevant to human health, Statistics Canada said.

Compared with children aged 6 to 11, those aged 12 to 19 had a slightly higher concentration, while those aged 40 to 79 had lower concentrations, Statistics Canada said.

## Widespread exposure

The findings are consistent with results from international studies, the agency said.



The Statistics Canada data "suggest continual widespread exposure in the Canadian population," the report concluded.

Canadians' average BPA level in their urine was 1.16 micrograms per liter.

"Canada was the first country in the world to take action on BPA by proposing a series of actions to reduce BPA exposure

to newborns and infants, including a prohibition on the importation, sale and advertising of polycarbonate baby bottles containing BPA," Health Canada said in an email.

The department's scientists are developing guidelines on BPA levels.

While there is still uncertainty about the health risk of BPA, it is excreted quickly and the fact that it was not found in some participants is good news, Prof. Linda Campbell, an environmental expert on mercury and metals.

## **Contaminant sources**

"The BPA concentrations are of concern at the higher concentrations, but since it is not persistent in humans, we should be able to see an immediate reduction if we can limit this compound," added Campbell, Canada Research Chair in aquatic ecosystem health.

Most research has focused on food sources of BPA. But the chemical is also widely used in consumer electronics such as computers, cell phones and video game consoles, said Prof. Miriam Diamond, who runs the Diamond Environmental Research Group at the University of Toronto.

"Thanks to advances in chemistry, researchers are able to measure extraordinarily low levels of natural and man-made substances in human fluids and tissues — often as little as one part per billion [a single drop in an Olympic-sized swimming pool]," the group said in a statement.

"Of course, health researchers know that the simple presence of an environmental chemical in a person's body does not mean that it will cause health effects or disease."

While the potential cause-and-effect relationship between BPA and health effects remains unclear, regulators could consider taking steps to limit exposure during pregnancy as a precaution, said Scott Venners, a professor in the faculty of health sciences at Simon Fraser University.

*With files from The Canadian Press*

Read more: <http://www.cbc.ca/health/story/2010/08/16/bpa-bisphenol-levels-urine-contamination.html#ixzz145GlnkId>

# BPA declared toxic by Canada

Wednesday, October 13, 2010 / 5:56 PM

[CBC News](#)



*BPA is found in food cans and some plastic containers. (Jim Young/Reuters)*

Bisphenol A, or BPA, a chemical used to make some hard plastic containers and toys, has formally been declared a toxic substance by Canadian authorities.

The federal government added BPA to Canada's toxic substances list on Wednesday.

"We are continuing our leadership on this issue and Canadians can rest assured that we are working hard to monitor and manage bisphenol A," Environment Minister Jim Prentice said in a statement.

BPA, also found in resins that coat the interior of food cans to prevent corrosion, has been shown to mimic the hormone estrogen and does not occur naturally in the environment.

There is no smoking gun indicating how dangerous BPA is, but the evidence is adding up, said Bruce Lanphear.

Studies in animal models are "quite concerning," and raise questions about prostate disease, breast cancer, fertility issues and behaviour problems in children, Lanphear said.

In August, Statistics Canada reported that measurable levels of BPA were found in the urine of 91 per cent of Canadians aged 6 to 79.

"Health Canada considers that sufficient evidence relating to human health has been presented to justify the conclusion that bisphenol A is harmful to human life and should be added to Schedule 1 of [the Canadian Environmental Protection Act]," the federal government reported in the Canada Gazette.

The government said the listing allows it to develop regulations to manage the risks posed by the chemical.

In 2008, Canada proposed declaring BPA toxic because of reproductive and developmental toxicity and environmental effects. The federal government proposed that BPA be banned in baby bottles and limited in infant formula cans.

But BPA was not added to the toxic substances list at that time.

## **Some like, some don't**

The toxic listing is the foundation for any legal action, said Smith, who predicted BPA will be removed from food and beverage containers in a few years.

# Mercury still plagues Ont. First Nation: report

## Grassy Narrows banned fishing in contaminated Wabigoon River 40 years ago

*Tuesday, April 6, 2010 / 8:42 PM*

[CBC News](#)

The health impacts of mercury poisoning in a northern Ontario First Nations community are worse now than when fishing in waters contaminated by the substance was first banned there 40 years ago, according to a report released in Toronto Tuesday.

It was exactly four decades ago, on April 6, 1970, that fishing was banned on the Wabigoon River because of mercury contamination caused by a paper mill upstream in Dryden, Ont. — owned by Reed Incorporated and subsequently Great Lakes Forest Products Limited.

The mercury poisoned fish in the Wabigoon and English river systems and continues to harm the health of more than 100 people living on the Grassy Narrows First Nation, mercury expert Dr. Harada concluded in his report.

Harada also examined the effects of mercury contamination in another community that uses the same river system — the Wabaseemoong Independent Nations (formerly known as Islington and Whitedog).

When Harada first visited the reserves in 1975, he found people with mercury levels over three times the Health Canada limit.

Mercury is a potent neurotoxin and a persistent pollutant.

Health impacts include:

- Tunnel vision.
- Loss of co-ordination.
- Numbness in the extremities.
- Tremors.
- Loss of balance.
- Speech impediments.

### Compensation criteria

Fewer than half of the people who Harada said are affected by mercury are receiving compensation from the Grassy Narrows & Islington Band Mercury Disability Board, said residents.

"One of the really specific things that we're looking for was the provincial government to come back to the table regarding the mercury issue," Grassy Narrows resident Judy Da Silva said in an interview.

The Mercury Disability Board was set up in 1985 as part of an out-of-court settlement Grassy Narrows and another community affected by mercury contamination reached with the federal and provincial governments and the two paper companies.

It administers compensation from a special fund to people whose health was affected by mercury contamination.

The board has its own measure for judging compensation, said chairperson Margaret Wanlin.

"To what degree is mercury impacting people's ability to conduct their daily lives, whether that was hunting and fishing, or doing crafts or working in their family home and doing the natural things of their life," Wanlin said.

"So, it's really measuring extent of impairment, and we're also aware that over time, there can be some advancing of these conditions so people can have a subsequent evaluation, a neurological assessment, two years later."

Under the 1985 compensation deal, those with mercury poisoning recognized by the board receive \$250 to \$800 a month.

Some environmental groups are calling for tighter guidelines on mercury safety, but Ontario Premier Dalton McGuinty said Tuesday he will wait to read the report before making any decisions.

"It seems that we have conflicting data and information," McGuinty said at an event in Peterborough.

"We have a report, apparently, which says we have a continuing problem, and this contrasts with the federal government saying that things are under control."

### **Health Canada stopped testing in 1996**

When Harada returned to Grassy Narrows in 2004, he found that 43 per cent of the people who had mercury levels above Health Canada guidelines in 1975 had died, said the environmental group Earthroots in a news release.

He found that even the residents whose mercury levels were within the safe limits set by Health Canada still experienced mercury-related health problems. Of the 156 people from Grassy Narrows and Wabaseemoong with levels below the guidelines whom Harada's team examined in 2004, 89% had Minamata disease, a type of mercury poisoning, Minamata disease with complications or possible Minamata disease.

Residents of Grassy Narrows say Health Canada stopped testing for mercury in their community in 1996, claiming it was no longer a problem because mercury levels have fallen below its safety guidelines.

Earthroots and the citizens group Free Grassy Narrows want governments to:

- Acknowledge that mercury poisoning is still a problem.
- Strengthen federal guidelines on cumulative exposure to low levels of mercury.
- Permanently monitor levels through an environmental centre in the community.

Wanlin said it's often difficult to differentiate between the signs of aging and the effect of mercury poisoning.

She added the board is currently reviewing all the international research on mercury to see whether any changes need to be made to its policies.

Between 1962 and 1970, the Dryden mill dumped 20,000 pounds of mercury into the Wabigoon River, the groups said.

*With files from The Canadian Press*

# Arctic health officials learn from PCB mistakes

**New approach focuses on choosing, not avoiding country foods**

*Saturday, May 15, 2010 / 9:56 PM*

By Emily Chung, [CBC News](#)



Toxins like mercury and PCBs (polychlorinated biphenyls) can travel long distances across the northern hemisphere on air currents. From time to time, they fall to the ground with rain or snow, but revaporize into the atmosphere when the ground heats up. In that way, they hop from place to place, said Eric Loring, researcher for the health and environment department.

Once they get into the Arctic, however, they don't revaporize, Loring said. "And they start building up in the environment."

**'People stopped breastfeeding. People stopped hunting, because they were scared of potentially harming their children.'** — *Eric Loring, ITK*

As toxins move higher up in the food chain, from invertebrates to fish to marine mammals, they become more concentrated. That's a big human health concern in the Arctic, where people top the food chain, eating large predators such as seals and whales.

In the 1980s, when Inuit communities first heard about organic toxins like PCBs and DDT in their food, they began to fear some of their healthiest practices.

"People stopped eating their country foods; people stopped breastfeeding," said Loring, who has lived most of his adult life in remote northern villages and camps. "People stopped hunting, because they were scared of potentially harming their children."

The problem was that there weren't a lot of other options when it came to food. Fresh produce is scarce where poor soils and permafrost make farming difficult, and many communities have no roads connecting them to the south, making transport expensive.

## **Pork chops, pizza pops**

Loring said country foods like seal, fish, walrus and caribou made up 80 to 90 per cent of his diet when he lived among the Inuit.



"When we didn't have those options, then we would eat very bad frozen pork chops, pizza pops — stuff that was just awful for you."

Traditions surrounding food are also an important part of Inuit culture and family life, which were being threatened by concerns over toxins.

Public health officials realized they needed to change their approach.

Elena Labranche was part of a public health team that travelled through Nunavik offering pointers on how to choose country foods that minimized the risk of eating too many contaminants. The team suggested that people should make misirak — a traditional gravy of liquefied blubber — from seal fat instead of beluga fat, because it had lower levels of PCBs. They also advised which fish had lower levels of toxins.

Now, levels of PCBs and other organic toxins are declining, but public health officials are sending similar messages about mercury.

"You don't have to change your diet," Labranche said, "just change to less contaminated foods."

# Health Canada should ban lice shampoos with insecticide: activists

*Monday, March 17, 2008 / 9:41 AM*

**The Canadian Press**

Parents of children battling head lice are being urged to avoid over-the-counter treatments that contain a pesticide outlawed for agricultural use in dozens of countries — including Canada — because of its adverse effects on humans and the water supply.

While a number of lice shampoos don't contain lindane, store shelves across the country are still stocked with brands containing the controversial chemical.

Lindane-based pharmaceuticals may represent the extreme when it comes to killing lice, but environmental activists say parents are often so disturbed by the thought of their kids harbouring bugs and the stigma of becoming infected that they adopt an "eradicate at any cost" stance.

"I don't really think that people comprehend alternative substances are effective and we're more or less dousing our children in pesticides" when using lindane, said Kevin Mercer of the group Riversides, which advocates on water quality issues. "Using lindane to kill head lice is like using a sledgehammer to kill an ant."

While several environmental groups have called for a ban on lindane-based pharmaceuticals, Health Canada still allows its use in lice and scabies treatments, even though its use as an agricultural pesticide has been banned.

The Canadian Paediatric Society recommends that they not be used on infants and children under 17. The society advises that products that contain pyrethrin or permethrin, instead of lindane, are considered safe.

## **Pesticide linked to convulsions, deaths**

California banned lindane products in 2002 amid concerns the chemical was showing up in wastewater and because lindane-based medications were generating reports of skin irritation, dizziness, headaches and, in some extreme cases, convulsions and death.

California estimated that a single treatment of a lindane-based product that was washed down the drain was impacting 22 million liters of water and bringing contamination above the limit of 19 parts per trillion.

A few years after the ban was implemented, officials said lindane levels had become nearly undetectable in the water supply and there was no notable increase in lice or scabies outbreaks.

Several U.S. states in the Great Lakes basin are now considering a similar ban, but the Ontario government and Health Canada say they're not overly concerned about the impacts of lindane-based shampoos.

There is evidence that shampoos are causing some levels of lindane to show up in municipal wastewater effluent testing, but "it is uncommon and would have minimal impact to the environment," said John Steele, a spokesman for Ontario's Ministry of the Environment.

"Work has shown that lindane is essentially not a concern and in fact, over 90 to 95 per cent of the samples were non-detect," he said.

"Historically, we have studied the environmental effects of the use of lindane and we have reviewed monitoring data that showed that concentrations of lindane were generally not detected in sediments or [in bacteria, plant or animal life] in the Great Lakes."

Health Canada conducted a safety evaluation for lindane and found the risks associated with occasional and short-duration exposure to head lice and scabies products were less serious than when the chemical was used as an agricultural pesticide.

In 1995, the U.S. Food and Drug Administration said lindane-based products should be used only after other alternatives had failed and currently warns the public that if they are used, they should only be used once.

"Patients are at risk for serious neurologic adverse events, and even death, particularly with early re-treatment," states the warning, which adds that it's not known when it's considered safe to administer a second dose.