Information on Mercury exposure





What is mercury?

Mercury is a toxic metal found naturally in our environment. Human activities such as smelting and burning fossil fuels can release mercury into the air, water, and soil.

Why should I be concerned?

Even small amounts of mercury exposure can result in negative health effects. The type of mercury, the amount, the age of the person and the route of exposure all change how toxic the mercury can be and how you're affected.

Who is at risk?

People who are pregnant (and their babies) may be more at risk from mercury exposure, because mercury crosses the placenta and can affect fetal development. Mercury primarily affects the brain and nervous system which are vulnerable in babies due to their rapid growth.

Children are also more likely to engage in behaviours that could expose them to mercury (crawling on the floor and putting things in their mouths) and are at risk due to the accumulative effects of mercury exposure over a lifetime.

Other adults who are at risk from mercury poisoning include populations who eat large fish as a key part of their diet as mercury accumulates in the tissues of these fish.

Where can it be found?

The greatest source of mercury exposure is through eating certain fish and shellfish.

Products such as skin lighteners and some traditional medicines may also contain mercury, as do some dental fillings.

Most consumer products are now mercury-free though older items may still contain mercury, such as thermometers, fluorescent lighting and electrical equipment.

Industrial or workplace exposure can occur, usually through inhalation of mercury vapours, though your employer can give you more information about your risk. Visit WorkSafeBC for more information: https://www.worksafebc.com/en/health-safety/ hazards-exposures/mercury

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How can I avoid mercury?

The most important and easiest way is to carefully consider your fish intake. Fish is a great source of high-quality protein and omega-3 fatty acids. It is an important part of a well-balanced diet, particularly in pescatarians and coastal communities.

However, some fish contain high levels of mercury and should be eaten in moderation.

Due to the way mercury is stored, larger fish that eat a lot of smaller fish contain higher levels of mercury. These include tuna, shark and swordfish.

Health Canada has recommended limits on the consumption of predatory fish for people who are or may become pregnant or are breastfeeding. These limits are 150g per month of predatory fish, and 300g per week of canned albacore (white) tuna. Salmon and herring are two examples of good choices for maximising omega-3 fatty acid intake while minimising your mercury consumption. More information about mercury in fish can be found at HealthlinkBC's website.

Other ways to avoid exposure to mercury are to be careful when handling items that may contain mercury, such as old thermometers and electrical equipment, and avoid skin lightening creams.

If liquid mercury is spilled, don't vacuum the material as this creates more dangerous mercury vapour. Wear protective equipment including shoes, keep children away and refer to the NCCEH guide below on cleaning up mercury.

You may need to contact your local health authority for assistance in cleaning up spills.

What should I do if I break a thermometer?

Elemental mercury, the fluid found in old thermometers, forms a gas with no smell or colour when spilled. By following the appropriate steps, it can be cleaned up safely. Please visit:

https://ncceh.ca/sites/default/files/Small_ Mercury_Spills_Clean-up_Oct_2015.pdf

Should I be worried about my dental fillings?

Dental fillings do not release a significant amount of mercury and if intact and undamaged, fillings do not need to be replaced.

You can ask your dentist for more information about dental amalgams and their alternatives.

Fish with higher levels of mercury	Fish with lower levels of mercury	*Canadian North Pacific
Tuna (fresh or frozen) Shark Marlin Swordfish Escolar	Fresh, canned or frozen salmon, sardines, herring, trout, char, smelt or eulachon and mackerel (good sources of omega-3 fats) Fresh or frozen sole, cod, pollock, halibut Fresh, canned or frozen B.C. or Canadian albacore tuna*	albacore tuna (fresh, frozen and canned) has been tested for mercury by the Canadian Food Inspection Agency and is considered safe to eat. The mercury level in these fish is lower than other albacore tunas.

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What are the symptoms of mercury exposure and how is it diagnosed?

In British Columbia, most exposures to mercury are at low enough levels that they do not cause noticeable symptoms in adults. However, the mercury may still cause harm. It can cause damage to your lungs, kidneys and gut, along with causing mood and cognition changes. At higher levels, mercury can cause paralysis, cognitive difficulties, and other damage to the brain and nervous system.

In newborns, exposure to mercury while in the womb may result in impaired development, particularly of the nervous system. Mercury exposure is diagnosed by blood or urine tests. The level of mercury will indicate your risk of illness and the next steps that need to be taken.

If you think you or your child may have been exposed to mercury, visit your local health care provider to decide if you should be tested. You can also call the BC Drug and Poison Information Centre (DPIC) 24/7 at 1-800-567-8911.

If you were exposed to mercury in your workplace, contact your employer or WorkSafeBC for further guidance.

How does BC protect the public against mercury?

The results of all blood and urine tests for mercury in BC are confidentially reported to the British Columbia Centre for Disease Control (BCCDC). This surveillance system allows experts to assess which areas have higher rates of mercury exposure and toxicity and investigate any unusual causes of mercury exposure in the community.

The provincial government, along with the federal government, works to develop local and international policies to reduce the amount of mercury in our environment. They will also provide advisories on specific fish breeds and fishing locations that may increase your risk.

How is it treated?

Preventing exposure is the best way to avoid harm. If exposure has already occurred, removing ongoing exposures is the most important treatment strategy. This will give your body a chance to remove the excess mercury on its own.

Depending on your blood and urine results, your treating health care provider may recommend other strategies for helping to remove mercury from the body, and your mercury levels will likely need to be retested in the weeks and months following diagnosis.

Where can I go for more information?

- Your local health care practitioner
- BC Drug and Poisons Information Centre http://www.dpic.org or 1-800-567-8911 (available 24/7)
- Health Canada

- Health Canada: information on fish consumption
- Healthlink BC
- WorkSafeBC
- Cleaning up mercury spills
- Canadian Dental Association