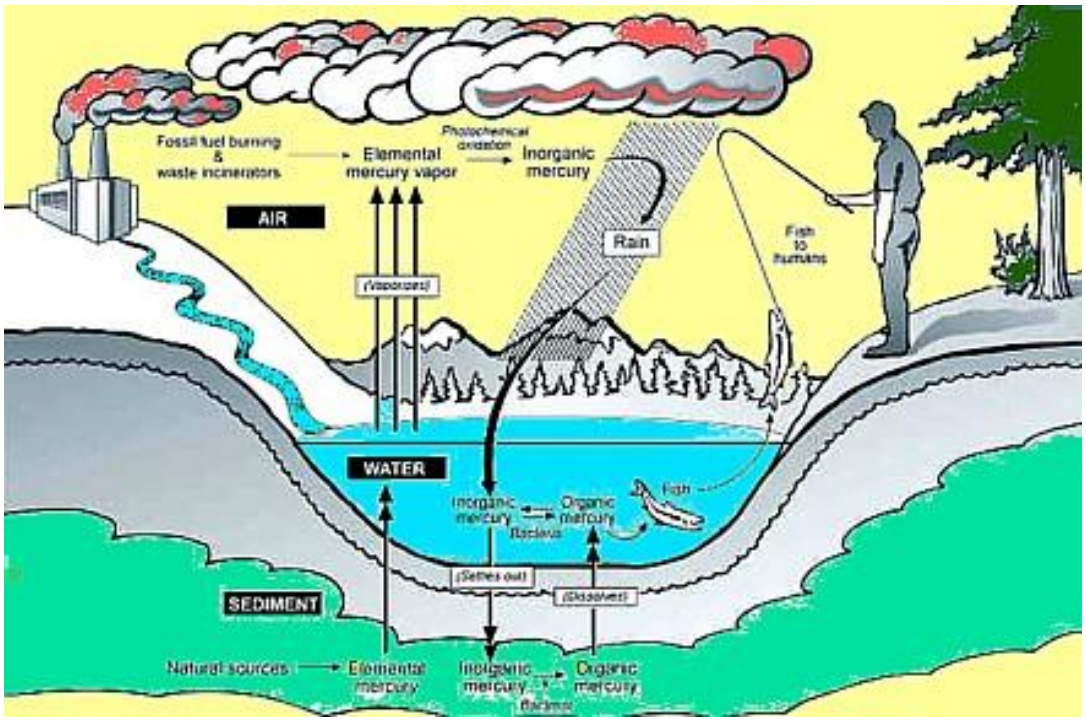
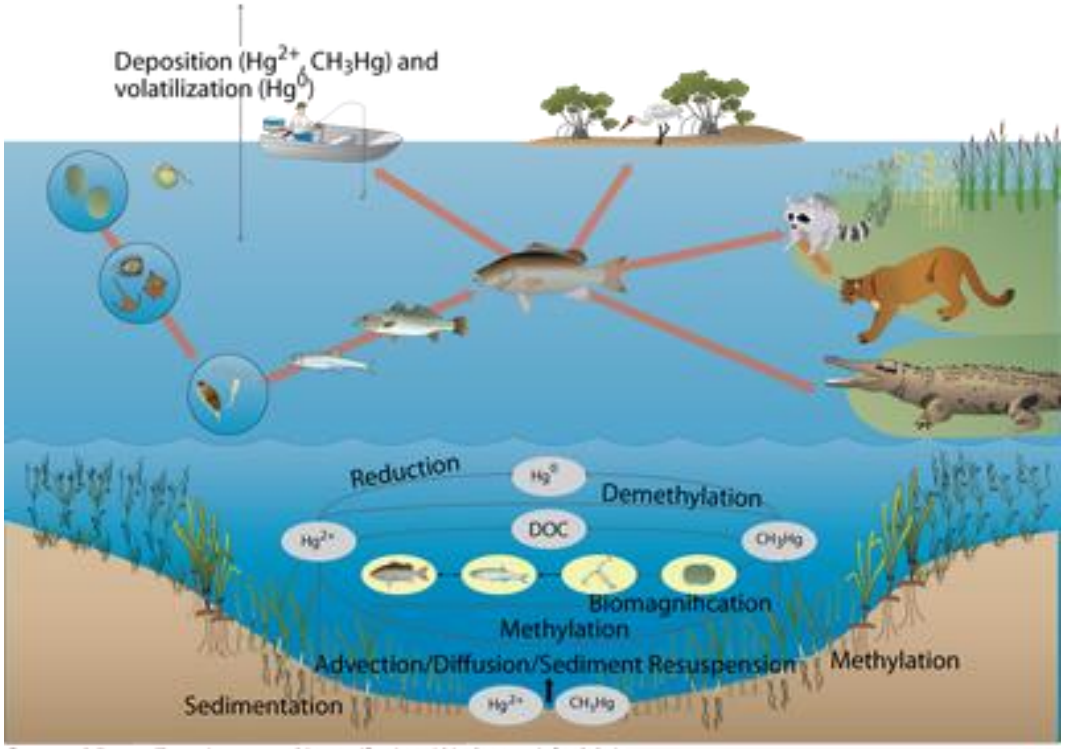
Environmental Mercury comes from many sources of which Dental Practices are a major contributor.





Conceptual diagram illustrating mercury biomagnification within the aquatic food chain.
Diagram courtesy of the Integration and Application Network (ian.umces.edu), University of Maryland Center for Environmental Science. Source: Kruczynski, W.L., and P.J. Fletcher (eds.). 2012. Tropical Connections: South Florida's marine environment. IAN Press, University of Maryland Center for Environmental Science, Cambridge, Maryland. 492 pp.

The water poisons the fish, which poisons anything that consume the fish or water.

Organic Mercury Compounds (Methyl mercury)

Mercury can change from one form to another in the environment. Methyl mercury tends to accumulate to some degree in all fish, but especially in the predatory fish noted above. Methyl mercury is absorbed through the digestive tract and distributed throughout the body. It readily enters the brain, where it may remain for a long period of time. In a pregnant woman, it can also cross the placenta into the fetus, building up in the fetal brain and other tissues. Methyl mercury can also be passed to the infant through breast milk.

A child's developing nervous system is particularly sensitive to methyl mercury. Depending on the level of exposure, the effects can include a decrease in I.Q., delays in walking and talking, lack of coordination, blindness and seizures. In adults, extreme exposure can lead to health effects such as personality changes, tremors, changes in vision, deafness, loss of muscle coordination and sensation, memory loss, intellectual impairment, and even death.

The Risks of Mercury Poisoning

In general, Canadians are not at risk from mercury poisoning. However, people exposed to elevated levels of mercury may experience health problems ranging from rashes to birth defects, even death in cases of extreme poisoning.

People who consume large amounts of fish, marine mammals and wild game as part of their daily diet increase their risk. The developing fetus and children of women who have consumed large amounts of fish and marine mammals during pregnancy are the most susceptible to health problems. However, exposure to methyl mercury from fish consumption is generally so low that it is difficult to measure any potential adverse health effects, even when using very sensitive methods to analyse changes in cognitive skills. Any such health effects may be offset by the nutritional benefits of fish consumption. Children, who tend to put things in their mouths, may increase their intake of mercury through soil and contaminated objects.

Canada's Food Guide recommends that Canadians eat at least two servings (of 75 grams each) of fish a week. Children, pregnant and breastfeeding women and women who may become pregnant can particularly benefit from the nutrients offered by fish. However, because the developing fetus and young children are also most at risk from mercury exposure, it's important that pregnant and breastfeeding women, women who may become pregnant and parents of young children are aware of what types of fish are a good choice for frequent consumption and which should be eaten less