MERCURY and the ENVIRONMENT

Note: The following article is from the website of Environment Canada. There is more information provided on the website than what is mentioned below. The following information is simply to give you an idea of the negative impact that Mercury has on our health.

SOURCES OF MERCURY

Mercury is a natural element that occurs throughout our solar system. It can be found in small concentrations in many rocks and is the main component of the mineral cinnabar. Natural background levels can be detected in soils, air, and water around the world.

Historically, mercury has been used by many cultures for a variety of symbolic purposes, such as in good luck charms and to ward off evil. Mercury played a predominant role in alchemy, and was thought to have medicinal uses such as curing syphilis in the 19th century. While the majority of these practices are no longer followed, mercury may still be used in certain regions of the world in artisanal jewelry and trinkets for tourist sales, in small-scale gold mining processes, and can be a significant source of pollution in areas surrounding active and inactive mercury mines.

Although humans have extracted and utilized mercury for centuries, mining and industrial applications for the metal have increased significantly since the industrial revolution. In Canada, mercury releases can typically be attributed to waste incineration, coal combustion, base metal smelting, and the chlor-alkali industry. Despite mercury's toxic nature, humans have taken advantage of its unique properties to produce various consumer products, such as fluorescent lights and dental amalgam. Consequently, the amount of mercury mobilized and released due to human activities has greatly increased, leading to elevated concentrations in air, water, soil, sediments, and living organisms.

MERCURY MANAGEMENT

As the dangers of mercury and its compounds are becoming increasingly understood, many scientific research studies have examined the environmental and health effects associated with mercury and its releases into the environment. The results demonstrate that there is an urgent and continuing need to reduce anthropogenic sources of mercury to protect human health and the environment. Because mercury can be transported long distances before being deposited on the Earth's surface, it is important to make nationally (and internationally) consistent efforts to reduce releases. In an effort to prevent further pollution, many countries and jurisdictions have implemented laws, regulations, policies, initiatives and agreements designed to lessen the threat of mercury. Proper disposal of mercury-containing products and other actions may also contribute to the reduction of mercury pollution into the environment.

While domestic and international initiatives have already resulted in significant reductions in mercury releases, more remains to be done. There is also a need to ensure that Environment Canada's mercury management initiatives are well-coordinated internally, as well as with the initiatives of other federal departments, other levels of government in Canada, and other governments and organizations. This section outlines current federal and provincial/territorial legislation and guidelines which have been implemented to reduce Canadian emissions. In addition, select Canadian programs and research and international initiatives that deal with mercury management are highlighted. Links to various municipal bylaws and initiatives that relate to mercury are provided on the links page.

Some of the documents are in .pdf format. You will need Adobe's Acrobat Reader to view these files.

Reference website: http://www.ec.gc.ca/MERCURY/SM/EN/sm-i.cfm