



# Mercury, Health and Indigenous Peoples

## The Toxic Legacy of the California Gold Rush

Over 150,000 Native Americans lived in California prior to the start of the Gold Rush in 1849. By 1870 disease, forced relocations and massacres reduced the Native population to an estimated 31,000.

Miners dug up 12 billion tons of earth and used mercury to extract gold ore. Approximately 26 million pounds of mercury was used in gold mining Northern California. The amount of mercury lost to the Northern California environment from the 1860's through the early 1900's is estimated at 11-13 million pounds. Clear Lake, the traditional homeland to Pomo Indian fishing communities, contains over 100 tons of mercury today. The amount of mercury required to violate federal health standards is equivalent to one gram in a small lake.

Many abandoned gold and mercury mines from the Gold Rush era were never adequately cleaned up, and continue to produce toxic runoff today. The American, Bear, Feather and Yuba Rivers, which join the Sacramento River to flow into the San Francisco Bay, are the four most mercury-contaminated rivers in the state. As of March 2009, there are fish consumption advisories due to mercury contamination in 46 Northern and Central California water bodies, with special warnings for pregnant women. It is estimated that 74 percent of California's lakes and reservoirs require such advisories. Of these, 26 percent contain fish unfit for human consumption. But most impacted Indian Nations have not had access to adequate information about the health effects of mercury contamination, especially for pregnant women, the risks of eating different types and amounts of fish, or effective ways to pressure state and federal officials to begin clean up. They have been denied their "Right to Know" about this serious health situation.

## The Threat to Human Health & Unborn Generations

Mercury is highly toxic, although some levels of inorganic mercury are found in nature. Metallic mercury is used in batteries, thermometers and other products. In the United States (US) and many other countries, coal-fired power plants are the largest source of mercury released into the environment. Dental amalgam (incorrectly called silver fillings for teeth) is another major source of mercury exposure with serious health impacts for both children and adults. Paper milling, mining and other industrial processes also produce mercury emissions. The most toxic form is methylated mercury, created when mercury is exposed to decaying plant matter, for example in marshes or lakes created by dams. This form of organic mercury bio-accumulates or builds up in the cells of fish and other animals, moving up the food chain in higher and higher concentrations. Humans are most commonly exposed by eating contaminated fish. Mercury in fish can be one million times higher than in the surrounding waters. Larger, older predatory fish (the kinds that eat other fish) tend to contain the largest amount of mercury.



Abandoned mercury and gold mines in areas such as California, South Dakota and Alaska continue to emit mercury. Current gold mining and processing also produce large amounts of mercury contamination. For example, in 2003, gold mining and processing at Placer Dome's Cortez mine and Barrick's Goldstrike in Northern Nevada released 2,435 pounds of mercury into the environment.

Mercury is linked to serious health problems, including heart disease and neurological problems. **The most serious impacts are to the brain, kidneys and nervous systems of unborn and nursing babies and young children.** Indigenous children from fishing communities are among the most affected. In 2000, the National Academy of Sciences estimated that 60,000 babies born each year in the US are at risk for learning disabilities and other kinds of neurological damage due to mercury contamination. The Academy concluded that there is "little or no margin of safety" for consumption of mercury by women of childbearing age. In 2004, the US Environmental Protection Agency estimated that over ten times that many babies may actually be at risk. Umbilical cord blood has been found to contain almost twice the level of mercury than that found in the mothers' blood, further increasing the risks to our unborn generations.

Mercury is an international problem. In British Columbia, Canada, the dam holding Teck Cominco's mercury mine tailings burst in 2004, releasing large amounts of mercury into waters used for traditional subsistence fishing. In Northern Ontario, paper mill emissions containing mercury have had devastating effects on the health and subsistence fishing of the Grassy Narrows First Nation Peoples. The United Nations (UN) Environmental Programme estimates that over one million people in Latin America, including many women and children, are currently involved in small-scale mining activities in which mercury is used.

### **Indigenous Women's Environmental Justice and Reproductive Health Initiative**



The International Indian Treaty Council (IITC) began to address the human rights and health impacts of mercury contamination in 1999 in response to information disseminated by the State of California for the 150<sup>th</sup> anniversary of the Gold Rush which failed to mention the devastating impacts on California Indian Nations and the environment. In 2009, IITC launched the Indigenous Women's Environmental Justice and Reproductive Health Initiative to provide information and training for Indigenous communities affected by mercury and other environmental contaminants, focusing on the impacts on the health and human rights of women, children and unborn generations. IITC recognizes the ongoing urgent need to inform community members, especially pregnant and nursing mothers, of the dangers of mercury to unborn and young children. IITC also supports community efforts to clean up contaminated mine and dump sites, and to prevent new sources of contamination.

Over 90 Indigenous women from around the world attended the first and second International Indigenous Women's Environmental and Reproductive Health Symposia in Alamo, California (2010) and Chickaloon, Alaska (2012). Participants committed to working together to address impacts of environmental contaminants, including mercury, on the health and well-being of Indigenous women, children and future generations.

### **International Pressure to Uphold Indigenous Peoples' Rights & Eliminate Mercury**

The IITC was actively involved in developing the Minamata Convention, an international legally-binding Treaty to eliminate mercury contamination which was finalized in January 2013 after five years of negotiations. On November 7th, 2013, the US became the first country to ratify the Convention, which needs to be ratified by 50 countries or "State parties" to go into legal force. Indigenous Peoples will need to continue to be actively involved in this process to ensure full and effective implementation of the Minamata Convention and advance work to eliminate the release of mercury into the global environment.

***The only way to keep mercury out of our bodies is to keep it out of the environment.  
The goal is to eliminate mercury use and ensure clean-up of contaminated areas.***

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The International Indian Treaty Council (IITC), founded in 1974, is an Indigenous organization working for the protection of human rights, cultures, treaties and traditional lands from the local to the international levels. In 1977, IITC was the first Indigenous organization to receive Consultative Status with the United Nations Economic and Social Council, and in 2011 was the first to be upgraded to General Consultative Status.

#### **More info on Mercury in CA:**

California Indian Environmental Alliance  
<http://www.cieaweb>