

Mercury in Skin Lightening Creams

Having light skin and a flawless complexion has become an aspiration for many people around the world making the use of skin-lightening creams an increasingly popular cosmetic practice. According to a 2015 report by [global industry analysts](#) the market for skin-lightening creams is projected to reach US \$23.0 billion by 2020. For several years Federal health officials have been warning consumers to be cautious in using skin lightening creams due to the fact that many of these products contain mercury.

The products are marketed as skin lighteners and anti-aging treatments that remove age spots, freckles, blemishes and wrinkles. The reason for concern is that these products have been found to contain very high levels of mercury and have been associated with numerous cases of mercury poisoning. Inorganic mercury such as mercurous chloride or ammoniated mercury is often used in skin-lightening creams because it inhibits melanin formation when absorbed by the skin.

Inorganic mercury enters the body by inhalation, ingestion, or absorption through the skin and is excreted in urine, sweat, and breast milk. The half-life of inorganic mercury is approximately 1–2 months in the body but may be as long as [27 years in the brain](#).

Mercury levels can increase gradually with repeated application of skin-lightening creams. Direct and prolonged exposure through the skin can cause damage to the brain, central nervous system, gastrointestinal tract, and kidneys. Mercury can pass to the fetus through the placenta or to the nursing infant through breast milk. [Information](#) regarding the long-term health consequences of applying skin-lightening creams containing mercury, particularly by women of childbearing age on their children development, however, are lacking.

More than 35 products containing mercury have been found in at least seven states and have resulted in numerous cases of mercury poisoning. Investigations into these cases have revealed that both users and household non-users of the cream were found to have elevated mercury levels. Infants and children can be exposed to mercury if they touch a parent who uses such products and then put their hands or fingers into their mouths or by breathing in mercury vapors that can outgas from these products. Prenatal exposure to mercury is of particular concern because the fetal central nervous system is especially vulnerable to effects of mercury exposure.

Studies have shown that prenatal and postnatal mercury exposure can cause permanent neurological damage in children primarily measured through decrements in IQ although other cognitive and behavioral deficits have also been observed.

These mercury containing products are manufactured abroad and sold illegally in the United States—often in shops in Latino, Asian, African or Middle Eastern neighborhoods and online. Consumers also purchase these products in other countries and bring them back to the U.S. for personal use.

In [Northern California](#), a 39-year old woman had more than 100 times the average amount of mercury in her urine and had symptoms of mercury poisoning, according to the California Department of Public Health. For three years, the woman and her husband had been using an unlabeled mercury-containing face cream that was brought into the U.S. from Mexico by a relative. Several other family members who did not use the cream, including a four-year-old child, also had elevated levels of mercury in their bodies.

The [Minnesota Department of Health](#) recently tested a random sample of skin-lightening products sold in Twin Cities stores: 11 out of 27 (41%) contained excessive levels of Inorganic mercury (ranging from 135 to 33,000 ppm). These products are very popular with the large Somali population in the Twin Cities. According to sources in Minnesota, despite the fact that store owners have been told that these products should be removed from the shelves they are still readily available to the Somali community. Consumers know to specifically request the products which are kept out of sight from state inspectors.

The [Orange County Health Care](#) agency in California issued a health advisory in 2014 when they traced cases of mercury poisoning to a face cream from Mexico used for “lightening the skin, fading freckles and age spots, and treating acne”. The cream, which was not named, contained dangerously high levels of mercury — more than 50,000 parts per million (ppm), the agency reported. The U.S. Food and Drug Administration allows only trace levels of mercury — less than 1 ppm — in face products sold to U.S. consumers.

20 people in South Texas have also tested positive for high levels of mercury which was linked to a product Crema Aguamary, which is marketed as a skin-lightening and anti-aging cream and is not approved for sale in the United States. The patients exhibited symptoms that included extremity numbness, high blood pressure and changes in their mental function. “The unusual finding of elevated blood pressure, particularly in a young person, and the numbness and tingling in the extremities, associated with mental status changes, should make a doctor think of heavy metal poisoning,” said Dr. Brian Smith, director of the [Texas Department of State Health Services](#) region that includes the Rio Grande Valley. Texas health officials say samples of face cream they tested contained mercury up to 131,000 times the allowable level.

Consumers should be especially alert when using products that are marketed as skin-lightening, or able to remove age spots or freckles and check the label. If the words “mercurous chloride,” “calomel,” “mercuric,” “mercurio,” or “mercury” are listed on the label, then the product contains mercury and should not be used.

More information and a [list of products along with pictures](#) and manufacture information.

References <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6102a3.htm>

<http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm294849.htm#3>

