



## Creams with Mercury Threaten Public Health and Turn Homes into Hazardous Waste Sites

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California Department of Toxic Substances Control Emergency Response Coordinator George Baker recently worked with U.S. EPA officials to train Los Angeles, Orange, Santa Barbara and San Luis Obispo counties on how to detect and clean up highly toxic mercury contamination.

The training sessions were sparked by an incident in Orange County, where a young child became ill when she came in contact with skin cream containing mercury and was hospitalized. That prompted a [health alert](#) in May by the California Department of Public Health (CDPH).

Skin-lightening or acne creams from Mexico seem harmless enough, but some jars contain high levels of mercury, a toxic chemical that can cause brain and kidney damage, nerve problems and other health problems, as the recent Orange County case and others in Stockton and [San Francisco](#) illustrated.

In the Orange County case, a mother who bought a jar of face cream from a friend in Santa Ana inadvertently poisoned her child and turned their apartment into a hazardous waste site.

The child exhibited hypertension, refusal to walk, irritability, difficulty sleeping and required a feeding tube. She had been hospitalized previously, but mercury was not identified as the cause of her health problems.

Baker joined the Orange County Health Care Agency at the mother's apartment after hospital officials determined the child had mercury poisoning. "We found high levels in the family's personal effects and clothing, but levels were especially high in the bathroom," Baker said. "Mercury continues to exude through the skin, so furniture and clothing becomes contaminated."

Examples of non-commercial skin-lightening or acne creams found in California.





## Creams with Mercury continued

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The child's mother had used cream that contained 38,000 parts per million (ppm) of mercury, and exposed her child through physical contact or contact with contaminated items.

Tests revealed high levels of mercury in bedding and clothes. Mercury transforms from a silvery liquid to a vapor at only 70 degrees, so it also can be inhaled. The contaminated goods were sealed in a plastic bag and disposed of as hazardous waste.

The family had to move out while the apartment was cleaned up. In this case, the heat in the apartment was turned up high to turn the mercury into vapor, which dispersed when the apartment was ventilated.

DTSC has sophisticated testing equipment that was used at the home and at the multi-county training session, where participants learned how to use the equipment to survey a dwelling for mercury vapor, and how to clean up and properly dispose of mercury-contaminated items.

Additional investigation uncovered friends who used the same cream – and exposed as many as 40 people, half of them children, to mercury, the CDPH reported.

It is illegal in the United States to sell skin cream products that have 1 ppm or more of mercury.

The CDPH says multiple cases of mercury poisoning have been reported in California over the past four years, and tests performed at its Food and Drug Laboratory revealed the creams contained very high levels of mercury - up to 210,000 parts per million (ppm), or 21 percent.

All California cases have resulted from the use of non-commercial skin creams originating in Mexico. In at least one case, a pharmacy in Mexico added powder and oil containing vitamins and other ingredients that included mercury to skin cream.



Creams collected in 2010, 2013 and 2014.



## Creams with Mercury continued

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Lori Copan, a research scientist at CDPH, has investigated many of these cases. She said they are becoming more frequent, and are likely more common than reported. “We don’t know the extent of their use because they are completely unregulated,” she said. “We don’t know the universe of affected individuals. It can affect some people, especially children, in very severe ways.”

The case in Orange County wasn’t the first that involved DTSC. Sacramento-based Environmental Scientist Nancy McGee, who also is with DTSC’s Emergency Response Unit, was called to a similar incident in Stockton in 2013. In that case, a teenager was hospitalized for almost a month after using an unlabeled cream from Mexico.

Often, doctors don’t suspect mercury poisoning, and cases will go undiagnosed, at least in the beginning. The Stockton teenager made multiple trips to the hospital before doctors tested for the presence of lead and mercury.

And the effects can linger. The Stockton teenager was experiencing back pain and muscular problems three months after being discharged from the hospital, Copan said.

Traces of mercury were detected on the youth’s pillow cases, clothes, sheets, and inside the washing machine. McGee eventually disposed of 10 drums of waste.

The cream contained 96,000 ppm to 210,000 ppm of mercury. “The teenager had only been using the cream twice a day for about six weeks before the onset of symptoms,” CDPH reported. “Eleven family members were affected by mercury exposure, and almost all furniture and personal belongings were disposed of.”