

Health Advisory: Mercury-containing Skin Lightening Product Associated with Acute Health Effects

Minnesota Department of Health, Tue Jan 14 11:00 CST 2020

Action Steps:

Local and tribal health departments: Please forward to hospitals, clinics, emergency departments, urgent care centers and convenience clinics in your jurisdiction.

Hospitals and clinics: Please distribute to primary care and OB-GYN providers and dermatologists in these facilities.

Health care providers:

- Ask patients who may be at risk for using skin lightening products because of cultural or medical reasons about these products, which may contain mercury.
- Consider inorganic mercury exposure from skin lightening products when conducting workup for differential diagnoses of renal, dermatologic and neurological diseases.
- Contact Minnesota Poison Control at 1-800-222-1222 with any questions about evaluating for mercury exposure or whether to obtain urine mercury levels.

Background

A case of acute renal, dermatologic and neurological health effects has been reported in a Minnesota woman who used a skin lightening product containing mercury. She was initially evaluated for lower-extremity edema and nephrotic range proteinuria, and was diagnosed with membranous nephropathy after a biopsy. Dermatologic symptoms included progressive painful, maculopapular, pinkish/red, eczema-like rash on exposed face and neck skin. The patient has reported progressive and marked fatigue, insomnia, depression, anxiety, irritability and apathy.

The patient reported use of a skin lightening product called Nunn Care Crema Limpiadora for one year. She ordered the product online through Walmart Marketplace and Amazon. She stopped using the product after learning of the association between membranous nephropathy and inorganic mercury. The product was tested and found to have high mercury content.

Multiple urine tests have confirmed elevated levels of urine mercury. Levels have trended downward since discontinuation of the skin lightening product.

Clinical Presentation and Evaluation

Signs and symptoms of exposure to inorganic mercury in skin lightening products include:

- Rash
- Hypertension, edema, uremia (due to tubular and glomerular renal injury), nephrotic syndrome
- Paresthesia, anxiety, irritability, tremors, memory loss, depression, weight loss, fatigue

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Screening for inorganic mercury is completed through urine collection, ideally collected with use of a preservative. In the general population, normal urine mercury levels should be <5 micrograms/liter. Anything higher indicates likely exposure to inorganic mercury. At levels >25 mcg/L, symptoms may be present though are unlikely, and a toxicologist or environmental specialist should be consulted. At levels >100 mcg/L, acute health effects are possible, and a toxicologist should be consulted as soon as possible through Minnesota Poison Control.

Removing the source of exposure is the most effective treatment. Some patients may require supportive care. Severe mercury poisoning can be treated with chelation after careful assessment of risk/benefit. Chelation treatment of asymptomatic or mildly symptomatic patients is unlikely to benefit patients, and may be harmful. Consultation with a medical toxicologist at Minnesota Poison Control is highly recommended before initiating chelation.

Patient Education

People use skin lightening products for a variety of reasons including skin bleaching, melasma, age or sun spot reduction, morphea, dysmorphia and other medical/personal reasons. Examples of skin lightening products include creams, powders and soaps. Some contain mercury (or other chemicals such as hydroquinone or steroids). Use of a product containing mercury exposes everyone in the home to mercury vapor in the air. Mercury can also be spread through household items (towels, clothing) that come in contact with the products.

Skin lightening is commonly practiced around the world, with deep roots in colorism that places higher value and privilege of light-skinned people over dark-skinned people. It is important to address the social stigma that comes with darker skin and encourage everyone to love their skin. The [Minnesota Family Environmental Exposure Tracking \(MN FEET\)](#) study found that using skin lightening products may be putting women from some Minnesota communities – Hmong, Latina and East African women, among other groups – in danger of high mercury levels.

Patients are advised that skin product ingredient lists are often not complete. The safest course of action is to discontinue use of all skin lightening products not used at the direction of a dermatologist. If they are using a product that is lightening their skin, it is probably unsafe. If patients are currently using a skin lightening product:

- Stop using the product now. If you have been using a product with mercury in it, your body will naturally get rid of the mercury over time.
- Do not throw the product in the trash or dispose of it in the toilet or sink. If it has mercury in it, it can harm others if it gets into the environment.
- Take the product to a household hazardous waste site. You can find the nearest site in the phone book or on the website of the [Minnesota Pollution Control Agency](#) (search for household hazardous waste).
- If you have concerns about your skin, see a dermatologist.

Further Information

- [MDH Skin Lightening Products Found to Contain Mercury](#)

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Pictures of tested products and patient-friendly, short informational sheets in English, Spanish, Hmong, Somali, Oromo and Karen.

- [MDH Mercury](#)
More background information and resources on mercury.
- [MN FEET program: Birth disparities and prenatal mercury exposure](#)
October 2019 article in Minnesota Physician.

Questions or Concerns

- Questions about evaluating for mercury exposure or whether to obtain urine mercury levels: Minnesota Poison Control at 1-800-222-1222
- Urine mercury testing at MDH: Jessica Nelson at 651-201-3610 or jessica.nelson@state.mn.us
- Skin lightening product outreach and education at MDH: Michelle Gin at 651-201-4825 or michelle.gin@state.mn.us

A copy of this HAN is available at: [MDH Health Alert Network](#)

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.