



[Home](#) → [Medical Encyclopedia](#) → Calcium hydroxide poisoning

URL of this page: //medlineplus.gov/ency/article/002910.htm

Calcium hydroxide poisoning

Calcium hydroxide is a white powder produced by mixing calcium oxide (lime) with water. Calcium hydroxide poisoning occurs when someone swallows this substance.

This article is for information only. DO NOT use it to treat or manage an actual poison exposure. If you or someone you are with has an exposure, call your local emergency number (such as 911), or your local poison control center can be reached directly by calling the national toll-free Poison Help hotline (1-800-222-1222) from anywhere in the United States.

Poisonous Ingredient

Calcium hydroxide

Where Found

These products contain calcium hydroxide:

- Cement
- Limewater
- Many industrial solvents and cleaners (hundreds to thousands of construction products, flooring strippers, brick cleaners, cement thickening products, and many others)
- Many hair relaxers and straighteners
- Slaked lime

This list may not include all sources of calcium hydroxide. Products called dry lime or quicklime are calcium oxide and should not be confused with calcium hydroxide since the treatments are very different.

Symptoms

Below are symptoms of calcium hydroxide poisoning in different parts of the body.

EYES, EARS, NOSE, AND THROAT

- Loss of vision
- Severe pain in the throat

- Severe pain or burning in the nose, eyes, ears, lips, or tongue

STOMACH AND INTESTINES

- Blood in the stool
- Burns in the food pipe (esophagus)
- Severe abdominal pain
- Vomiting
- Vomiting blood

HEART AND BLOOD

- Collapse
- Low blood pressure that develops rapidly (shock)
- Severe change in the acid level in the blood (pH balance), which leads to damage in all of the body organs

LUNGS AND AIRWAYS

- Breathing difficulty (from breathing in substance)
- Throat swelling (which may also cause breathing difficulty)

SKIN

- Burns
- Holes (necrosis) in the skin or tissues underneath
- Irritation

Home Care

Get medical help right away. Do not make the person throw up unless poison control or a health care provider tells you to.

If the chemical is on the skin or in the eyes, flush with lots of water for at least 15 minutes.

If the chemical was swallowed, immediately give the person water or milk, unless instructed otherwise by poison control or a provider. Do not give water or milk if the person is having symptoms (such as vomiting, convulsions, or a decreased level of alertness) that make it hard to swallow.

If the person breathed in the poison, immediately move them to fresh air.

Before Calling Emergency

Have this information ready:

- Person's age, weight, and condition
- Name of the product
- Time it was swallowed

- Amount swallowed

Poison Control

Your local poison control center can be reached directly by calling the national toll-free Poison Help hotline (1-800-222-1222) from anywhere in the United States. They will give you further instructions.

This is a free and confidential service. All local poison control centers in the United States use this national number. You should call if you have any questions about poisoning or poison prevention. It does NOT need to be an emergency. You can call for any reason, 24 hours a day, 7 days a week.

What to Expect at the Emergency Room

The provider will measure and monitor the person's vital signs, including temperature, pulse, breathing rate, and blood pressure. Symptoms will be treated as needed.

Tests that may be done include:

- Bronchoscopy -- camera placed down the throat to look for burns in the airways and lungs.
- Chest x-ray
- Electrocardiogram (ECG)
- Endoscopy -- camera placed down the throat to check for burns in the esophagus and stomach

Treatment may include:

- Fluids through a vein (by IV)
- Medicine to treat symptoms
- Tube through the mouth into the stomach to wash out the stomach (gastric lavage)
- Washing of the skin (irrigation), every few hours or for several days
- Surgery to remove burned skin
- Breathing support, including tube through the mouth into the lungs and connected to a breathing machine (ventilator)

Outlook (Prognosis)

How well the person does depends on the amount of poison swallowed and how quickly treatment is received. The faster medical help is given, the better the chance for recovery.

Swallowing such poisons can have severe effects on many parts of the body. Burns in the airway or gastrointestinal tract can lead to tissue necrosis, resulting in infection, shock, and death, even several months after the substance is first swallowed. Scars may form in these tissues, leading to long-term difficulties with breathing, swallowing, and digestion.

If calcium hydroxide gets into the lungs (aspiration), serious and possibly permanent lung damage can occur.

If a chemical burn occurred in the eye, permanent blindness can result.

Alternative Names

Hydrate - calcium; Lime milk; Slaked lime; Hydrated lime

References

Aronson JK. Calcium salts. In: Aronson JK, ed. *Meyler's Side Effects of Drugs*. 16th ed. Waltham, MA: Elsevier; 2016:41-42.

Hoyte C. Caustics. In: Walls RM, Hockberger RS, Gausche-Hill M, eds. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 9th ed. Philadelphia, PA: Elsevier; 2018:chap 148.

Review Date 11/2/2023

Updated by: Jesse Borke, MD, CPE, FAAEM, FACEP, Attending Physician at Kaiser Permanente, Orange County, CA. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

Learn how to cite this page



Health Content
Provider
06/01/2028

A.D.A.M., Inc. is accredited by URAC, for Health Content Provider (www.urac.org). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#), and [privacy policy](#).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Links to other sites are provided for information only – they do not constitute endorsements of those other sites. No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, timeliness, or correctness of any translations made by a third-party service of the information provided herein into any other language. © 1997-2025 A.D.A.M., a business unit of Ebix, Inc. Any duplication or distribution of the information contained herein is strictly prohibited.



National Library of Medicine 8600 Rockville Pike, Bethesda, MD 20894 U.S. Department of Health and Human Services

National Institutes of Health