CONDITION

Metal polish poisoning

Metal polish poisoning is harmful exposure to the chemicals in products used to clean or shine metal.

WHAT IT IS
Toxic exposure to chemicals in metal-cleaning products

BODY SYSTEM
Digestive, breathing, nervous, skin, eyes, heart and circulation

MAIN SYMPTOMS
Mouth burns, vomiting, coughing, breathing difficulty

WHAT CAUSES IT
Swallowing, inhaling, or contacting metal polish chemicals

HOW IT IS DIAGNOSED
Exposure history, examination, blood tests, imaging, sometimes endoscopy

MAIN TREATMENT
Supportive care and treatment of burns or lung injury

CAN IT BE CURED?
Sometimes - recovery follows limited injury and prompt care

IS IT AN EMERGENCY?
Sometimes - breathing trouble, collapse, seizures, or severe burns

LONG-TERM OUTLOOK
Often good; serious lung or tissue injury may persist

Overview

Metal polish poisoning happens when a metal-cleaning product harms the body. Exposure can occur by swallowing the polish, breathing its fumes or spray, or getting it on the skin or in the eyes.

Metal polishes do not all contain the same chemicals. Depending on the product, they may contain hydrocarbon solvents, ammonia, acids, alkalis, or other cleaning agents. Hydrocarbons are oily chemicals similar to those found in fuels and paint thinners. Acids and alkalis can cause chemical burns.

The type of product, amount, concentration, and route of exposure all affect the risk. A small splash on intact skin is different from swallowing concentrated polish or breathing it into the lungs.

One important risk after swallowing some polishes is aspiration. This means liquid enters the airway and lungs, often during coughing or vomiting. Hydrocarbon solvents can then cause chemical pneumonitis, which is inflammation and injury inside the lungs.

If an exposure has just happened, do not wait for symptoms before getting advice from a poison centre. The product label and container can help specialists identify the ingredients.

Symptoms

Symptoms may begin quickly, but breathing problems after swallowing or inhaling a product can sometimes develop over several hours.

Swallowed metal polish may cause:

Vomiting does not remove the risk. It can bring the product back across the throat and increase the chance that it enters the lungs.

Inhaled fumes or spray may cause coughing, headache, dizziness, nausea, chest tightness, or irritation of the nose and throat. Heavy exposure in an enclosed space may affect alertness, breathing, or heart rhythm.

Eye exposure can cause watering, redness, pain, blurred vision, or chemical burns. Skin contact may cause dryness, redness, irritation, blistering, or burns. Concentrated products can damage tissue more deeply than the skin initially appears to show.

Severe poisoning may cause extreme sleepiness, collapse, seizures, abnormal heart rhythms, very low blood pressure, or loss of consciousness. These symptoms need emergency care.

- Burning or pain in the mouth, throat, chest, or abdomen
- Drooling or difficulty swallowing
- Nausea, vomiting, or diarrhoea
- Coughing, choking, wheezing, or shortness of breath
- Drowsiness, dizziness, confusion, or poor coordination

Causes and risk factors

Metal polish poisoning is caused by exposure to one or more chemicals in the product. The product name alone does not reliably show how hazardous it is. Liquid, paste, cream, wipe, and spray products can have different ingredients.

Risk may be higher when:

Combining cleaning products can create irritating or toxic gases. Metal polish should not be mixed with bleach, acids, ammonia products, or other cleaners unless the manufacturer specifically says this is safe.

Older adults, young children, and people with lung or swallowing problems may be more vulnerable to complications. Intentional swallowing is especially dangerous because the amount may be larger and more than one substance may be involved.

- A product is swallowed, especially by a young child
- Polish is transferred into a cup, bottle, or unlabelled container
- Several cleaning products are mixed
- Sprays or fumes are used in a small, poorly ventilated area
- The product is concentrated or intended for industrial use
- Someone vomits or coughs after swallowing a hydrocarbon-containing polish
- Contaminated clothing remains against the skin
- Eye rinsing is delayed after a splash

Diagnosis

There is no single test that confirms every case. Diagnosis is based mainly on what happened, the product involved, symptoms, and examination findings.

Healthcare teams may ask for the product name, ingredients, amount involved, time of exposure, and whether the person coughed or vomited. Bringing the container or a clear photograph of its label can be useful. Do not carry a leaking or contaminated container into an enclosed space.

Assessment may include breathing rate, oxygen level, heart rate, blood pressure, temperature, alertness, and examination of the mouth, skin, and eyes.

Tests are selected according to the suspected chemical and symptoms. They may include blood tests, an electrocardiogram to check the heart rhythm, and a chest X-ray if lung exposure is possible. A normal early chest X-ray does not always rule out developing lung inflammation.

If a corrosive product may have been swallowed, a specialist may use endoscopy. This involves passing a flexible camera through the mouth to look for burns in the oesophagus, the tube connecting the mouth to the stomach. Eye examination may include checking the surface pH and looking for corneal damage.

Treatment and management

Immediate advice should come from a poison centre or emergency service. Treatment differs because metal polish formulas differ.

Do not make the exposed person vomit. Do not try to neutralise an acid with an alkali, or an alkali with an acid. The reaction can release heat and cause further injury. Food, drinks, activated charcoal, or home remedies should not be given unless a poison specialist or healthcare professional recommends them for that specific exposure.

For fumes, move into fresh air without entering an unsafe area. If the product is on the skin, remove contaminated clothing and rinse the skin with plenty of running water. For an eye splash, remove contact lenses if this is easy and begin gentle rinsing with clean, lukewarm water. Continue while obtaining poison-centre advice.

Hospital treatment is supportive, meaning it protects breathing, circulation, and other body functions while the chemical is cleared and injured tissue heals. It may include oxygen, intravenous fluids, treatment for seizures or abnormal heart rhythms, and careful monitoring.

A breathing tube and ventilator may be needed if swelling, reduced consciousness, or severe lung injury interferes with breathing. Chemical burns may require care from digestive, eye, lung, or burn specialists.

Antibiotics like amoxicillin or doxycycline do not prevent chemical pneumonitis and are not automatically needed. They may be used if there is evidence of a separate bacterial infection. Procedures intended to empty the stomach are often avoided when aspiration or corrosive injury is a concern.

Complications

Many small exposures cause temporary irritation and improve with appropriate advice. More serious complications are linked to aspiration, concentrated corrosive chemicals, or heavy solvent exposure.

Possible complications include:

A narrowing of the oesophagus is called a stricture. It can develop weeks after a deep burn, even after the immediate illness has improved. Warning signs include food sticking, pain with swallowing, repeated vomiting, or unexpected weight loss.

- Chemical pneumonitis, with inflammation and reduced oxygen exchange
- Pneumonia following lung injury

- Burns or holes in the oesophagus or stomach
- Bleeding inside the digestive tract
- Scarring that narrows the oesophagus and makes swallowing difficult
- Corneal injury and lasting vision problems
- Skin burns, scarring, or infection
- Kidney, liver, brain, or heart effects after severe systemic poisoning

Prevention

Most accidental metal polish exposures can be prevented. Prevention focuses on safe storage, ventilation, and keeping the product in its original packaging.

Store metal polish locked away from children and separate from food, drinks, and medicines. Keep the original label attached and close the cap after use. Never pour polish into a drinking bottle, cup, or food container.

Follow the label's instructions for ventilation and protective gloves or eye protection. Avoid spraying toward the face. Do not eat, drink, or smoke while using the product, and wash your hands afterward.

Use only one cleaning product at a time unless the label clearly permits mixing. Dispose of unwanted products according to local household hazardous-waste instructions rather than pouring them into another container.

If someone may intentionally swallow a harmful product, store it securely and seek urgent mental health support. An intentional exposure should be treated as an emergency.

Living with it and what to expect

The course depends on the chemical, amount, route of exposure, and whether the lungs or digestive tract were injured. A brief skin or eye irritation may settle after thorough rinsing and assessment. Mild inhalation symptoms often improve after leaving the exposure, although new or worsening breathing symptoms still need attention.

After swallowing a hydrocarbon-containing polish, monitoring may be needed because coughing, fever, chest discomfort, or breathing difficulty can emerge over several hours. People with chemical pneumonitis may need days of hospital care. Recovery can take longer if a large area of lung is affected.

Deep corrosive burns can have a longer course. Swallowing may remain painful while tissue heals. Scar tissue can narrow the oesophagus over the following weeks or months, sometimes requiring repeated procedures to widen it.

Severe lung, eye, or digestive injury can cause lasting limitations, but this is not the expected outcome after every exposure. Many people with prompt assessment and limited injury recover without ongoing effects.

Follow-up is routine when a healthcare team wants to recheck breathing, swallowing, eye healing, or burns. Attend these appointments even if symptoms are improving. New difficulty swallowing, ongoing cough, reduced exercise tolerance, or vision changes should be reported rather than left until the next routine visit.

When to get medical help

Contact a poison centre promptly after swallowing metal polish or after a significant eye, skin, or inhalation exposure. Do this even if no symptoms have started. In the United States, Poison Help is available at 1-800-222-1222 . Elsewhere, contact your local poison information service or urgent medical service.

While seeking advice, have the container or label nearby if this can be done safely. Be ready to describe the person's age, approximate weight, symptoms, exposure route, time, and possible amount.

Call emergency services now for:

Someone who is unconscious, having a seizure, or struggling to breathe should not be given anything by mouth. Place an unconscious but breathing person on their side if it is safe to do so. Do not enter an area with heavy fumes unless emergency responders have said it is safe.

Routine follow-up is appropriate for symptoms that are stable or improving when a healthcare team has already assessed the exposure. Worsening breathing, swallowing, pain, alertness, or vision is not a routine follow-up issue and needs urgent reassessment.

- Difficulty breathing, blue or grey lips, or severe wheezing
- Collapse, inability to wake, seizure, or marked confusion
- Severe mouth or throat swelling
- Repeated vomiting, vomiting blood, or severe chest or abdominal pain
- Sudden loss of vision or severe eye pain
- A large chemical burn

- Any intentional swallowing

Common questions

What should I do if I swallowed a small amount of metal polish?

Rinse or wipe out the mouth, but do not cause vomiting. Contact a poison centre immediately because risk cannot be judged by taste, amount, or lack of early symptoms alone. Follow the advice given for the exact product.

Can metal polish fumes poison me?

Yes. Fumes and spray can irritate the airways, and some solvents can cause dizziness, nausea, drowsiness, or poor coordination. Move to fresh air and get advice if symptoms continue. Breathing difficulty, collapse, or confusion requires emergency help.

Can I drink milk or water after swallowing metal polish?

Do not automatically give milk, water, food, or another substance. The safest response depends on the ingredients, symptoms, and ability to swallow. A poison specialist can tell you what is appropriate.

How long does metal polish poisoning take to show symptoms?

Irritation, vomiting, dizziness, or coughing may start quickly. Lung symptoms can appear or worsen over several hours, particularly if liquid entered the airway. Digestive scarring after a deep chemical burn may not become obvious until weeks later.

Is metal polish poisoning contagious?

No. Chemical poisoning cannot spread from person to person. However, wet polish on clothing, skin, or nearby surfaces can expose someone else until it is removed safely.

Will metal polish poisoning cause permanent damage?

Most limited exposures do not cause permanent damage, but serious aspiration or chemical burns can leave lasting lung, swallowing, skin, or eye problems. Early poison-centre advice and appropriate medical assessment help identify these risks.

Sources

- MedlinePlus Medical Encyclopedia: Metal polish poisoning , U.S. National Library of Medicine

- America's Poison Centers: Get Poison Help , national poison-centre access and first-aid information
- Merck Manual Consumer Version: Hydrocarbon Poisoning , overview of aspiration, symptoms, diagnosis, and treatment
- Merck Manual Professional Edition: Caustic Ingestion , clinical review of corrosive digestive-tract injury
- NHS: Poisoning , symptoms, emergency response, diagnosis, and hospital treatment