CONDITION

Turpentine oil poisoning

Turpentine oil poisoning is harmful illness caused by swallowing, breathing, or contacting turpentine.

WHAT IT IS
Toxic effects from exposure to turpentine oil

BODY SYSTEM
Lungs, nervous system, digestive system, kidneys, and skin

MAIN SYMPTOMS
Coughing, vomiting, drowsiness, breathing difficulty

WHAT CAUSES IT
Swallowing, inhaling, or skin contact with turpentine oil

HOW IT IS DIAGNOSED
Exposure history, examination, oxygen monitoring, and targeted tests

MAIN TREATMENT
Decontamination, breathing support, monitoring, and other supportive care

CAN IT BE CURED?
Yes - many recover fully after exposure stops

IS IT AN EMERGENCY?
Sometimes - swallowing, breathing trouble, confusion, or collapse

LONG-TERM OUTLOOK
Usually full recovery; severe lung or organ injury may persist

Overview

Turpentine oil poisoning happens when turpentine harms the body. Exposure may occur by swallowing the liquid, breathing concentrated fumes, getting it in the eyes, or leaving it on the skin.

Turpentine is made from substances found in pine trees. It is used in some paint thinners, solvents, polishes, cleaning products, and traditional remedies. The contents of products sold as "turpentine" may differ, so the product label matters.

Swallowing turpentine is especially concerning because it can enter the lungs during swallowing or vomiting. This is called aspiration . Even a small amount in the lungs can cause chemical inflammation known as chemical pneumonitis . This may interfere with breathing.

Turpentine can also affect the brain and nervous system. Larger exposures may cause marked drowsiness, confusion, seizures, or loss of consciousness. Skin, eye, digestive, and kidney effects are also possible.

Do not wait for symptoms after turpentine has been swallowed. Contact a poison centre or emergency medical service for instructions. Do not make the person vomit.

Symptoms

Symptoms depend on how the exposure happened, how concentrated the product was, and how much entered the body.

After swallowing turpentine, possible symptoms include:

Breathing problems may begin during the exposure or develop over the following hours. Signs of lung injury include persistent coughing, fast or difficult breathing, chest discomfort, wheezing, and bluish or grey lips.

Breathing concentrated vapour may irritate the nose, throat, and lungs. It may also cause headache, dizziness, nausea, weakness, or drowsiness. Exposure in an enclosed or poorly ventilated space is more concerning because vapour can build up.

Skin contact may cause redness, dryness, burning, or an itchy rash. Turpentine removes natural oils from the skin, so repeated contact can cause cracked or inflamed skin.

Eye exposure can cause immediate burning, watering, redness, and blurred vision.

Severe poisoning may cause seizures, very low alertness, coma, abnormal heart rhythm, low blood pressure, or kidney injury. These effects are uncommon after minor skin contact but require emergency care when they occur.

- Burning in the mouth or throat
- Nausea, vomiting, or stomach pain
- Coughing, choking, or wheezing
- Headache, dizziness, or unusual drowsiness
- Confusion or poor coordination

Causes and risk factors

The cause is exposure to turpentine oil or a turpentine-containing product. The main routes are swallowing, inhalation, skin contact, and eye contact.

Accidental swallowing can happen when turpentine is stored in a drink bottle, cup, or unlabelled container. Young children may be attracted to an accessible container. Adults may also mistake it for another liquid.

Some people use turpentine as a home or traditional remedy. Swallowing it is unsafe. Applying it to large areas of skin or using it near the nose and mouth can also lead to harmful exposure.

Risk may be greater when turpentine is:

Vomiting after ingestion raises the risk of aspiration. This is why trying to make someone vomit can make the poisoning more dangerous.

- Used in a small, enclosed, or poorly ventilated space
- Sprayed or heated, increasing the amount in the air
- Used without suitable skin and eye protection
- Mixed up with food, drinks, or medicines
- Handled repeatedly at work or during hobbies
- Swallowed by someone who is drowsy or has trouble swallowing

Diagnosis

There is no routine blood test that confirms every case of turpentine oil poisoning. Diagnosis is usually based on what happened, the product involved, symptoms, and physical examination.

If possible, take the product container or a clear photograph of its label to medical care. Different solvents may be sold under similar names, and some products contain several chemicals.

A healthcare team may check breathing rate, heart rate, blood pressure, temperature, alertness, and blood oxygen level. A chest X-ray may be used when there is coughing, choking, low oxygen, or concern that liquid entered the lungs. Early lung changes do not always appear immediately on an X-ray.

Blood and urine tests may be used to look for kidney problems, changes in body salts, or other organ effects. An electrocardiogram, or ECG, records the heart's electrical activity and may be used after a significant exposure.

People without symptoms may still need a period of observation after swallowing turpentine. Poison specialists and emergency teams decide what monitoring is appropriate from the exposure details and any developing symptoms.

Treatment and management

Treatment focuses on stopping exposure, protecting breathing, and supporting the body while the chemical is cleared.

If turpentine has been swallowed, do not cause vomiting. Do not give oils, alcohol, or other home remedies. Contact a poison centre immediately. If the person is very drowsy, having a seizure, struggling to breathe, or unconscious, call emergency services and do not give anything by mouth.

For inhaled vapour, move into fresh air if this can be done without entering an unsafe space. Do not enter an enclosed area with strong fumes unless trained and properly equipped.

For skin exposure, remove contaminated clothing and wash the skin thoroughly with soap and water. Avoid harsh scrubbing or additional solvents, which may increase irritation.

For eye exposure, remove contact lenses if they come out easily and rinse the eye continuously with clean, lukewarm water. Seek poison-centre or medical advice, especially if pain, redness, or blurred vision continues.

Hospital care may include oxygen, airway support, breathing treatments, intravenous fluids, and monitoring of the heart, lungs, and kidneys. A person with severe breathing failure may need mechanical ventilation, in which a machine supports breathing.

Activated charcoal and procedures intended to empty the stomach are generally not useful for simple hydrocarbon ingestion and may increase aspiration risk. Antibiotics like amoxicillin or doxycycline do not treat the initial chemical inflammation itself, although they may be used if a separate bacterial infection is later identified.

Complications

The main complication is chemical pneumonitis caused by turpentine entering the lungs. Inflamed lung tissue may leak fluid and become less able to move oxygen into the blood. Severe cases can progress to respiratory failure.

Other possible complications include:

Most limited exposures do not cause all of these problems. The likelihood of complications is higher after swallowing with coughing or vomiting, prolonged inhalation of concentrated vapour, or delayed treatment of serious symptoms.

- Ongoing wheezing or reduced exercise tolerance during lung recovery

- Dehydration after repeated vomiting
- Kidney injury, sometimes with blood or protein in the urine
- Abnormal heart rhythm or low blood pressure
- Seizures or brain injury after severe poisoning
- Skin inflammation after repeated contact
- Eye-surface injury after significant splashing

Prevention

Turpentine oil poisoning is usually preventable.

Keep turpentine in its original, clearly labelled container. Never place it in a bottle, cup, food container, or medicine container. Store it locked away from children and separate from food and drinks.

Use turpentine only where there is good ventilation and follow the product's safety instructions. Avoid breathing vapour directly. Appropriate gloves and eye protection can reduce skin and eye exposure during work or hobbies.

Change contaminated clothing promptly and wash exposed skin. Workplace exposures should be managed through ventilation, safe handling procedures, protective equipment, and occupational health guidance.

Do not swallow turpentine or use it as a treatment for parasites, pain, congestion, or other health concerns. "Natural" does not mean safe to ingest.

Keep the product away from flames and heat because turpentine is also flammable. Dispose of unwanted material according to local hazardous-waste instructions rather than pouring it into a drink container or household drain.

Living with it and what to expect

Turpentine oil poisoning is usually an acute event rather than a condition that continues on its own. Once exposure stops and the chemical has cleared, it does not normally return unless another exposure occurs.

People with minor irritation may improve after fresh air, washing, or eye rinsing. After an uncomplicated exposure, symptoms may settle over hours to days. However, symptoms following swallowing or aspiration can develop later, so early improvement does not replace

poison-centre assessment.

Chemical pneumonitis may take days or weeks to resolve. Cough, tiredness, or shortness of breath during activity can continue while the lungs heal. Follow-up may include a symptom review, oxygen measurement, examination, or repeat lung testing when symptoms persist.

Repeated workplace or hobby exposure can lead to recurring skin irritation, headaches, dizziness, or breathing symptoms. These problems may improve when exposure is controlled, although damaged skin can remain sensitive for some time.

Long-term disability is not expected after most mild exposures. Severe oxygen deprivation, major lung injury, or kidney damage can have lasting effects. Recovery in these cases is shaped by which organs were injured and how severe the injury was.

Routine follow-up is appropriate for a continuing cough, reduced stamina, skin rash, or other symptoms after initial treatment. New breathing difficulty, confusion, collapse, or reduced responsiveness is not a routine follow-up issue and needs urgent assessment.

When to get medical help

Contact a poison centre promptly after any swallowed turpentine, even if there are no symptoms. In the United States, Poison Control can be reached at 1-800-222-1222. Elsewhere, use the local poison-information service or emergency advice line.

Call emergency services immediately for:

Move away from fumes only if it is safe. Do not enter a contaminated enclosed space to rescue someone without appropriate training and equipment.

Seek same-day medical or poison-centre advice for persistent vomiting, wheezing, eye pain, blurred vision, or a large skin exposure. Routine follow-up is suitable for symptoms that are stable but not resolving after the initial assessment.

- Trouble breathing, choking, or blue or grey lips
- Severe or worsening coughing after swallowing
- Extreme drowsiness, confusion, or inability to wake
- A seizure, collapse, or loss of consciousness
- Severe chest pain
- Exposure to heavy fumes in an enclosed space

Common questions

What should I do if I swallowed only a small amount of turpentine?

Do not wait to judge the amount yourself. A small swallow can still enter the lungs, especially if it causes coughing or vomiting. Rinse out the mouth, do not induce vomiting, and contact a poison centre immediately for advice based on the exact product and symptoms.

Should I drink milk or water after swallowing it?

Do not force fluids or use a home remedy. What is safe depends on alertness, swallowing ability, symptoms, and the product involved. Follow instructions from a poison specialist. Give nothing by mouth to someone who is drowsy, seizing, or having trouble swallowing.

Can turpentine fumes poison me?

Yes. Concentrated vapour can irritate the airways and affect the nervous system, causing headache, dizziness, nausea, or drowsiness. The risk is greater in enclosed or poorly ventilated spaces. Breathing difficulty, confusion, or collapse requires emergency help.

Can turpentine be absorbed through the skin?

Some absorption can occur, particularly after prolonged or extensive contact. Skin irritation is more common. Remove contaminated clothing and wash with soap and water. Seek advice after a large exposure or if burning, blistering, dizziness, or other symptoms develop.

How long after exposure can breathing problems start?

Coughing or choking may begin immediately, but lung inflammation can become more noticeable over the following hours. Anyone who swallowed turpentine and then coughed, choked, vomited, or developed breathing symptoms needs prompt medical assessment.

Is turpentine the same as mineral spirits or paint thinner?

Not always. Turpentine comes from pine-derived substances, while mineral spirits are petroleum-based. "Paint thinner" may contain either one or a mixture of solvents. All can be harmful, but their contents differ. Keep the container or label available when seeking help.

Sources

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