CONDITION

Detergent poisoning

Detergent poisoning is harmful irritation or injury caused by swallowing, breathing in, or contacting a detergent product.

WHAT IT IS
Harmful effects after swallowing, breathing, or contacting detergent

BODY SYSTEM
Digestive tract, lungs, eyes, skin, and nervous system

MAIN SYMPTOMS
Vomiting, coughing, breathing trouble, eye or throat pain

WHAT CAUSES IT
Exposure to irritating, concentrated, or caustic detergent ingredients

HOW IT IS DIAGNOSED
Exposure history, examination, and tests for internal injury

MAIN TREATMENT
Immediate rinsing, poison advice, and supportive medical care

CAN IT BE CURED?
Yes, most recover; severe burns may leave lasting damage

IS IT AN EMERGENCY?
Sometimes, especially with breathing trouble or reduced alertness

LONG-TERM OUTLOOK
Most recover fully; serious lung, eye, or swallowing injury may persist

Overview

Detergent poisoning means harmful effects caused by swallowing detergent, breathing it into the lungs, or getting it in the eyes or on the skin. Products include laundry detergent, detergent packets or "pods," hand-dishwashing liquid, automatic dishwasher detergent, and concentrated commercial cleaners.

Detergents contain surfactants, which loosen oils and dirt. Small amounts of many household detergents mainly cause irritation, nausea, or vomiting. However, concentrated products and strongly alkaline detergents can cause more serious injury.

Automatic dishwasher detergents and some commercial products can be caustic, meaning they can burn living tissue. Laundry detergent packets are also concerning because their concentrated contents may be released suddenly into the mouth or eyes. Exposure can cause

repeated vomiting, drowsiness, breathing problems, chemical burns, or eye injury.

Prompt rinsing and advice from a poison service can reduce harm. Do not wait for symptoms before seeking poison advice after someone swallows a detergent packet, concentrated product, or caustic detergent.

Symptoms

Symptoms depend on the product, route of exposure, and whether detergent entered the lungs.

After swallowing detergent, symptoms may include:

Vomiting can allow foamy detergent to enter the airway, called aspiration. This may cause coughing, wheezing, fast breathing, chest discomfort, or shortness of breath. Lung symptoms can begin immediately or develop over several hours.

Eye exposure may cause intense stinging, redness, tearing, swollen eyelids, or blurred vision. Strongly alkaline products can damage the cornea, the clear front surface of the eye.

Skin exposure usually causes redness, dryness, itching, or a rash. Prolonged contact with a concentrated or caustic product may cause pain, swelling, blistering, or a chemical burn.

Breathing detergent mist, powder, or fumes may irritate the nose, throat, and lungs, causing coughing, wheezing, or difficulty breathing. Mixing cleaning products can create dangerous gases, but this is a separate chemical exposure.

- Burning or irritation in the mouth and throat
- Drooling, nausea, vomiting, or stomach pain
- Coughing, choking, gagging, or a hoarse voice
- Trouble swallowing or refusing food and drink
- Sleepiness or reduced alertness, particularly after packet exposure

Causes and risk factors

The seriousness of an exposure depends on the ingredients, concentration, acidity or alkalinity, amount, and route of exposure.

Young children are at particular risk because they put objects in their mouths. Brightly coloured detergent packets may attract them, and the thin outer film can break when bitten or squeezed.

Risk is also higher for people with memory problems, reduced vision, or difficulty reading labels. Detergent stored in a drink bottle or unlabelled container may be mistaken for something safe.

Workplace exposure may involve larger amounts or more concentrated products. Poor ventilation, splashing during transfer, and missing protective equipment increase the risk.

Intentional swallowing can cause serious harm even if early symptoms seem mild. It also requires urgent emotional and mental health support.

Diagnosis

There is no single blood test for detergent poisoning. Diagnosis is based on the product, how the exposure happened, symptoms, and examination.

Keep the original container or take a clear photograph of its label if possible. The product name and ingredients help poison specialists assess risk, but do not delay emergency care while looking for packaging.

A healthcare professional may check breathing, oxygen levels, heart rate, blood pressure, alertness, and swallowing. Tests may not be needed after a minor exposure without concerning symptoms.

Chest imaging, blood tests, or blood gas testing may be used for coughing, low oxygen, breathing difficulty, repeated vomiting, or suspected aspiration. Lung changes may not appear immediately.

An endoscope, a thin flexible camera, may be used to examine the throat, food pipe, or stomach after suspected caustic injury. It is not needed for every exposure.

After eye exposure, the eye may be checked for surface injury once rinsing is complete. Fluorescein dye can make corneal damage easier to see.

Treatment and management

First aid depends on where contact occurred.

If detergent was swallowed, remove any remaining product and gently rinse the mouth. Do not cause vomiting. Do not try to neutralize the detergent with vinegar, baking soda, or another chemical. Do not force food or drink, especially if the person is coughing, vomiting, sleepy, or having trouble swallowing.

Contact a poison information service promptly. In the United States, call Poison Control at

1-800-222-1222. Elsewhere, use the local poison service or emergency number. Follow its instructions about taking anything by mouth.

For eye exposure, remove contact lenses if easy and immediately rinse with clean, lukewarm running water for at least 15 to 20 minutes. Keep the eyelids open as much as possible. Do not delay rinsing to make a phone call. Persistent pain, blurred vision, or redness requires urgent assessment.

For skin exposure, remove contaminated clothing and rinse thoroughly with running water. Do not scrub damaged skin or apply a neutralizing chemical.

After inhalation, move into fresh air if safe. Do not enter an enclosed or contaminated area without proper protection.

Hospital treatment may include oxygen, breathing support, medicines for wheezing, intravenous fluids, pain relief, or specialist eye care. Severe caustic injury may require digestive-system, airway, or surgical specialists.

Activated charcoal does not reliably bind most detergent ingredients and may increase aspiration risk. Stomach pumping is not routine treatment.

Complications

Most minor exposures do not cause lasting harm. Complications are more likely with concentrated or caustic products, delayed eye rinsing, or aspiration.

Chemical pneumonitis is lung inflammation caused by inhaled detergent. Severe lung injury can lead to low oxygen, fluid in the lungs, or respiratory failure.

Caustic burns may injure the mouth, throat, food pipe, or stomach. Deep injuries can heal with scar tissue that narrows the food pipe. This is called a stricture and may cause long-term trouble swallowing.

Serious eye exposure can damage the cornea and affect vision. Prompt, prolonged rinsing lowers this risk.

Repeated vomiting may cause dehydration, while reduced alertness increases choking and aspiration risk. Death is uncommon after minor household exposure but can occur after severe lung injury, extensive caustic burns, or a large intentional exposure.

Prevention

Many detergent exposures can be prevented:

At work, use the required protective clothing, gloves, and eye protection. Ensure containers and dispensing systems are clearly labelled.

For someone with memory or vision problems, consider locked storage and easier-to-read labels. Do not leave detergent unattended during cleaning or laundry.

- Keep detergents in their original, labelled containers
- Store them locked away and out of children's sight and reach
- Keep detergent packets sealed in their container between uses
- Never store detergent in cups, food containers, or drink bottles
- Close caps and clean spills immediately
- Follow label instructions for ventilation and protective equipment
- Do not mix cleaning products unless the label directs it

Living with it and what to expect

A mild exposure may cause irritation, nausea, or a brief cough that improves within hours. A poison specialist may recommend home observation when the product and amount are low risk.

Coughing or breathing symptoms can worsen over several hours after aspiration, so medical observation may be needed even if the person initially appears comfortable.

Recovery from significant lung irritation may take days or weeks. Follow-up may include checking breathing, oxygen levels, and chest symptoms. Do not ignore a new fever, worsening cough, or reduced ability to exercise.

Deep burns to the food pipe can cause swallowing problems weeks or months later as scar tissue forms. Follow-up is important if food sticks, swallowing becomes painful, or weight loss occurs because eating is difficult.

Eye irritation often improves after thorough rinsing, but corneal injury may require follow-up until healed. Ongoing blurred vision, light sensitivity, or pain needs reassessment.

After an intentional exposure, a mental health assessment and practical support should accompany physical treatment.

When to get medical help

Call emergency services now if the person:

Do not make the person vomit while waiting for help. If detergent is in the eye or on the skin, continue rinsing when safe.

Contact a poison service promptly after any swallowed detergent packet, automatic dishwasher detergent, concentrated commercial product, or unknown product. Also call for repeated vomiting, coughing, unusual sleepiness, eye exposure, or uncertainty about the risk. Do not wait for symptoms after a potentially caustic exposure.

Arrange follow-up if coughing or breathlessness persists, swallowing becomes painful or difficult, or eye redness, pain, or blurred vision continues. Routine follow-up is usually unnecessary after a minor, symptom-free exposure when a poison specialist has advised home observation.

- Has trouble breathing, noisy breathing, or blue or grey lips
- Collapses, has a seizure, or cannot be woken normally
- Is choking or unable to swallow saliva
- Has severe chest or abdominal pain
- Vomits blood
- Has rapidly worsening eye pain or loss of vision

Common questions

What happens if I swallow a small amount of detergent?

A small accidental taste may cause mouth irritation, nausea, vomiting, or coughing. Risk depends on the product and whether any entered the lungs. Rinse the mouth and contact a poison service. Do not cause vomiting.

Are laundry detergent pods more dangerous than liquid detergent?

Packets contain concentrated detergent and can release it suddenly. Exposure has been linked with repeated vomiting, breathing problems, drowsiness, and eye injuries. Discuss any swallowed packet promptly with a poison service.

Should I drink water or milk after swallowing detergent?

Do not force fluids. Drinking may be unsafe with vomiting, coughing, sleepiness, or trouble swallowing. A poison specialist may recommend a small amount in some situations based on the product and symptoms.

How long does detergent poisoning take to show symptoms?

Mouth, stomach, and eye irritation often begin quickly. Breathing problems may appear

immediately or over several hours after aspiration. Scar-related swallowing problems after a deep caustic burn may take weeks to appear.

Can detergent burn the stomach?

Strongly alkaline dishwasher or commercial detergents can burn the mouth, food pipe, and stomach. Hand-dishwashing liquids are usually irritating rather than caustic but can still cause vomiting and aspiration.

Is detergent on the skin dangerous?

Brief contact often causes mild irritation. Remove contaminated clothing and rinse well. Seek medical advice if pain, redness, swelling, or blistering continues, or if the product was concentrated or labelled corrosive.

Sources

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