CONDITION

Hair tonic poisoning

Hair tonic poisoning is illness caused by swallowing or excessive exposure to toxic alcohols or other ingredients in hair tonic.

WHAT IT IS
Toxic effects from swallowing or heavy exposure to hair tonic

BODY SYSTEM
Brain, eyes, breathing, heart and digestion

MAIN SYMPTOMS
Vomiting, drowsiness, confusion, slow breathing

WHAT CAUSES IT
Alcohols or other toxic hair tonic ingredients

HOW IT IS DIAGNOSED
Exposure history, blood tests and acid-base tests

MAIN TREATMENT
Supportive care, antidote when appropriate, sometimes dialysis

CAN IT BE CURED?
Sometimes - early treatment may prevent lasting injury

IS IT AN EMERGENCY?
Sometimes - swallowing it needs immediate poison advice

LONG-TERM OUTLOOK
Full recovery common unless severe organ injury occurs

Overview

Hair tonic poisoning happens when ingredients in a hair tonic harm the body. It most often follows swallowing the product. Serious poisoning from normal use on the hair and scalp is uncommon, although eye exposure or prolonged skin contact can cause irritation.

Many hair tonics contain an alcohol as a solvent. This may be ethanol, which is the type of alcohol in alcoholic drinks, or isopropyl alcohol, also called rubbing alcohol. Some products, especially older, imported, counterfeit or incorrectly labelled ones, may contain methanol. Methanol is a toxic alcohol that can damage the eyes, brain and other organs.

The exact risk depends on the product, its ingredients, how much exposure occurred and the person's age and size. A small amount can have a greater effect on a young child. The product's smell or appearance cannot show whether it is safe.

Swallowing hair tonic should be treated as a possible poisoning even if no symptoms have started. Some harmful effects, especially from methanol, may be delayed. Contact a poison centre promptly rather than waiting for the person to become unwell.

Symptoms

Symptoms may begin within minutes or hours. They can resemble severe drunkenness because alcohols slow activity in the brain. Possible early symptoms include:

More severe poisoning can cause low blood pressure, a low body temperature, seizures or loss of consciousness. Vomit may enter the lungs if a very drowsy person cannot protect their airway. This is called aspiration.

Ethanol can cause low blood sugar, particularly in young children or people who have not eaten. Signs may include sweating, shaking, weakness, unusual behaviour or seizures.

Isopropyl alcohol often causes marked drowsiness and stomach irritation. The breath may smell sweet or fruity as the body changes isopropyl alcohol into acetone. This smell does not identify the substance with certainty.

Methanol poisoning may initially cause few symptoms. After a delay, it can cause worsening headache, rapid breathing, severe weakness, confusion or vision changes. Vision may become blurred, dim or appear as though looking through fog or a snowstorm. These symptoms need emergency care.

Eye splashes may cause burning, redness and watering. Skin contact usually causes dryness or irritation rather than whole-body poisoning, unless exposure is extensive or prolonged.

- Nausea, vomiting or stomach pain
- Dizziness, headache or poor coordination
- Unusual sleepiness, confusion or slurred speech
- Slow or difficult breathing

Causes and risk factors

Hair tonic poisoning is caused by exposure to an ingredient in an amount the body cannot safely process. Alcohols are usually responsible, but fragrances, preservatives or other chemicals may also contribute.

Common situations include accidental swallowing by a child, mistaking the product for a drink,

or drinking it as a substitute for beverage alcohol. Poisoning may also follow intentional ingestion during a mental health crisis.

Factors that can increase the risk of serious effects include:

A label may not provide enough information to judge the risk at home. "Alcohol," "denatured alcohol" or "proprietary ingredients" may not identify every substance or its concentration.

- A large or unknown amount swallowed
- Young age or small body size
- A product containing methanol or an unidentified alcohol
- Existing breathing, liver or kidney problems
- Taking sedatives, opioids or alcohol at the same time
- Delayed access to medical care

Diagnosis

Diagnosis begins with finding out what happened. The product container, ingredient list and any safety information are useful. Clinicians will want to know the approximate amount, the time of exposure, how it occurred and whether other substances may have been taken.

An examination checks alertness, breathing, heart rate, blood pressure, temperature and vision. A bedside blood glucose test is especially important for children and anyone with altered behaviour or consciousness.

Blood tests may measure ethanol, methanol or isopropyl alcohol. Tests can also look for changes in electrolytes, kidney function and the body's acid balance. Toxic alcohols can create abnormal gaps between measured and expected blood values. These are called the osmolar gap and anion gap.

An electrocardiogram, or ECG, may be used to check the heart's rhythm. Other tests may be needed if aspiration, head injury or another poisoning is possible.

Specialised alcohol measurements may not be available quickly. If methanol poisoning seems likely, treatment may begin from the exposure history, symptoms and routine blood results rather than waiting for confirmation.

Treatment and management

Get poison-centre advice immediately after hair tonic has been swallowed. Do not make the

person vomit. Vomiting increases the chance that liquid will enter the lungs, and it does not reliably remove the poison.

Do not give food, alcohol, medicine or a home remedy unless a poison specialist or healthcare professional specifically directs you to do so. Keep the container or take clear photographs of its labels.

For an eye splash, remove contact lenses if this is easy and rinse the eye with clean, lukewarm water. For skin exposure, remove contaminated clothing and wash the skin with soap and water. Poison-centre staff can advise how long to continue rinsing and whether an examination is needed.

Hospital treatment is based on the ingredient and the person's condition. It may include monitoring, oxygen, intravenous fluids and treatment for low blood sugar, seizures, low blood pressure or breathing problems. A breathing tube and ventilator may be needed if someone cannot breathe safely or protect their airway.

Fomepizole is an antidote used when methanol poisoning is suspected or confirmed. It blocks the body from turning methanol into more harmful chemicals. In some settings, carefully monitored ethanol may be used as an alternative antidote. These treatments require medical supervision.

Haemodialysis may be needed in severe methanol poisoning. This treatment filters the blood to remove toxic alcohol and harmful breakdown products. It also helps correct dangerous changes in the blood's acid balance.

There is no specific antidote for uncomplicated ethanol or isopropyl alcohol poisoning. Treatment is usually supportive while the body clears the substance.

Complications

Most mild exposures that receive appropriate assessment do not cause permanent harm. Complications are more likely after a large ingestion, severe loss of consciousness or methanol exposure.

Possible complications include aspiration pneumonia, dangerously slow breathing, low blood pressure, low blood sugar and injury related to falls or seizures.

Methanol can cause a severe build-up of acid in the blood, called metabolic acidosis. It may damage the optic nerve, which carries visual information from the eye to the brain. Vision loss can be permanent. Severe poisoning can also cause brain injury, coma or death.

Intentional ingestion may signal an ongoing risk from depression, substance use or another

crisis. Addressing that underlying problem is an important part of preventing further harm.

Prevention

Hair tonic poisoning is usually preventable. Store hair products in their original containers, with the cap closed, and place them out of children's sight and reach. A locked cupboard offers more protection than a high shelf alone.

Never transfer hair tonic into a cup, water bottle or food container. This makes accidental swallowing more likely. Do not describe the product to a child as a drink or medicine.

Read the label before use and follow instructions for ventilation, skin contact and disposal. Avoid products with missing labels, damaged seals or unclear ingredients. Older products and products from uncertain sources deserve particular caution.

If someone drinks non-beverage products to obtain alcohol, safe storage alone may not be enough. Medical, mental health and substance-use support can help reduce future poisoning risk.

Living with it and what to expect

Hair tonic poisoning is usually a single, short-term event rather than a continuing condition. The course depends mainly on the chemical involved, the amount absorbed and how quickly serious effects are treated.

After uncomplicated ethanol or isopropyl alcohol poisoning, drowsiness and stomach symptoms often improve as the body clears the alcohol. Observation may still be needed until breathing, alertness, blood sugar and vital signs remain stable.

Methanol poisoning can follow a less predictable course because major symptoms may be delayed. Hospital monitoring may continue for days, particularly when antidote treatment or dialysis is required. Follow-up may include eye, brain or kidney assessment.

People who recover without organ damage do not usually have continuing symptoms from the exposure. If injury to the eyes or brain has occurred, vision, balance, memory or other abilities may remain affected. Rehabilitation and specialist follow-up can help with adjustment, but the degree of recovery cannot be predicted for every person.

After an accidental childhood exposure, review how cosmetics and household chemicals are stored. After intentional ingestion, follow-up for emotional wellbeing or alcohol use is part of medical recovery, not a punishment.

When to get medical help

Contact a poison centre immediately if hair tonic has been swallowed, even if the person feels well. In the United States, Poison Help is available at 1-800-222-1222 . Elsewhere, contact your local poison information service or urgent medical service.

Call emergency services now if the person:

Place an unconscious but breathing person on their side if you can do so safely. Do not put anything in their mouth. Begin cardiopulmonary resuscitation if they are not breathing normally and follow the emergency dispatcher's instructions.

Routine follow-up may be appropriate after discharge if symptoms are improving but have not fully settled, or if the care team recommends repeat vision, kidney or neurological checks. New vision problems, worsening confusion, breathing difficulty or repeated vomiting are not routine follow-up issues and need urgent reassessment.

- Is difficult to wake, collapses or loses consciousness
- Has slow, irregular or difficult breathing
- Has a seizure
- Develops confusion, severe weakness or vision changes
- Cannot stop vomiting or may have inhaled vomit
- Swallowed the product intentionally or may harm themselves

Common questions

Is hair tonic poisonous if swallowed?

It can be. The risk comes from alcohols and other ingredients that are intended for external use. Because concentrations and ingredients differ, contact a poison centre after any known swallowing rather than judging the risk by taste, smell or symptoms.

What should I do if my child licked hair tonic?

Remove the product, wipe or rinse the mouth gently, and contact a poison centre with the container nearby. Do not make the child vomit. Emergency care is needed for unusual sleepiness, poor coordination, breathing changes, seizures or difficulty waking.

Can hair tonic make you blind?

Hair tonic containing methanol can damage the optic nerve and cause severe or permanent vision loss. Not every product contains methanol, but the ingredient may be unclear. Blurred,

dim or "snowy" vision after exposure is an emergency.

How long does hair tonic poisoning take to appear?

Ethanol and isopropyl alcohol often cause symptoms within minutes to hours. Methanol may have a symptom-free delay before serious illness develops. Taking ethanol at the same time can lengthen that delay, so feeling well initially does not rule out poisoning.

Is it safe to make someone vomit after they swallow it?

No. Induced vomiting does not reliably remove toxic alcohol and may cause choking or aspiration into the lungs. Follow instructions from a poison centre or emergency professional instead.

Can normal use on the scalp cause poisoning?

Serious whole-body poisoning from use as directed is uncommon. Stop using the product and wash it off if it causes significant burning, rash or irritation. Extensive exposure, eye contact or symptoms such as dizziness and drowsiness should be discussed with a poison centre.

Sources

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