CONDITION

# Pheniramine overdose

Pheniramine overdose is poisoning caused by taking more of this sedating antihistamine than the body can safely handle.

**WHAT IT IS**
Poisoning from too much pheniramine

**BODY SYSTEM**
Nervous system, heart and circulation, bladder, and eyes

**MAIN SYMPTOMS**
Drowsiness, agitation, fast heartbeat, blurred vision

**WHAT CAUSES IT**
Taking more pheniramine than the body can process

**HOW IT IS DIAGNOSED**
Exposure history, examination, and heart tracing

**MAIN TREATMENT**
Emergency monitoring and supportive care

**CAN IT BE CURED?**
Yes - effects usually resolve with supportive care

**IS IT AN EMERGENCY?**
Yes - suspected overdose needs immediate assessment

**LONG-TERM OUTLOOK**
Full recovery common when serious complications are avoided

## Overview

Pheniramine is a sedating antihistamine like cetirizine or loratadine . It is used in some allergy, cold, and combination medicines. An overdose happens when someone takes more pheniramine than their body can safely handle. This may be accidental or intentional.

Pheniramine blocks histamine, a chemical involved in allergy symptoms. It also blocks some effects of acetylcholine, a chemical that helps control the brain, eyes, heart, digestion, sweating, and bladder. Too much pheniramine can therefore affect several parts of the body at once.

Mild poisoning may cause sleepiness, dry mouth, or blurred vision. More serious poisoning can cause severe confusion, seizures, abnormal heart rhythms, breathing problems, or unconsciousness. Symptoms can change quickly, so a suspected overdose needs immediate

advice from a poison service or emergency clinician even if the person initially feels well.

Pheniramine overdose is an acute poisoning, not an illness that usually continues for months or years. Most people recover when the effects wear off and any complications are treated.

## Symptoms

Symptoms often begin within hours, but the timing is not always predictable. It can be affected by the product, the amount taken, whether food was eaten, and whether other medicines or alcohol were involved.

Pheniramine may first cause drowsiness. In some people, particularly children, it can instead cause restlessness or unusual excitement.

Possible symptoms include:

Severe poisoning may cause extreme agitation, dangerously high body temperature, seizures, very low blood pressure, abnormal heart rhythms, coma, or slowed breathing. A person does not need to have every symptom for the poisoning to be serious.

Some combination products contain pheniramine along with paracetamol, also called acetaminophen, or another active ingredient. These substances may cause additional symptoms and complications. Paracetamol poisoning can initially cause few or no symptoms even while liver injury is developing.

- Dry mouth, thirst, flushed skin, or reduced sweating
- Wide pupils, blurred vision, or sensitivity to light
- Drowsiness, dizziness, poor coordination, or slurred speech
- Restlessness, agitation, confusion, or hallucinations
- Nausea or vomiting
- Difficulty passing urine
- A fast or irregular heartbeat

## Causes and risk factors

The direct cause is taking too much pheniramine. This can happen after one large ingestion or after repeated doses taken too close together.

Common situations include:

The severity cannot be judged from symptoms alone. It is influenced by the amount taken, the person's age and size, the time since ingestion, and any other substances involved.

Alcohol, sleeping medicines, opioid pain medicines, and other sedating drugs can add to drowsiness and breathing problems. Other medicines with anticholinergic effects can add to confusion, overheating, a fast heartbeat, and difficulty passing urine.

People with underlying heart problems may be more vulnerable to the effects of an abnormal heart rhythm. However, serious effects can also occur in someone without previous health problems.

- Taking an extra dose by mistake
- A child accessing medicine that was not securely stored
- Using several cold or allergy products with overlapping ingredients
- Confusing different product strengths or formulations
- Taking pheniramine during an act of self-harm

## Diagnosis

There is no routinely used blood test that by itself confirms pheniramine overdose. Diagnosis is usually based on what was taken, the symptoms, a physical examination, and heart monitoring.

The emergency team may ask about the product name, strength, estimated amount, time of ingestion, and whether alcohol or other medicines were taken. Bringing the packaging can be helpful, but treatment should not be delayed while searching for it.

An electrocardiogram, or ECG, records the heart's electrical activity. It can show a fast rhythm or changes caused when a large amount of antihistamine interferes with electrical signals in the heart. The ECG may be repeated if symptoms continue or worsen.

Blood tests may check blood sugar, salts, kidney function, acid levels, or muscle injury. A paracetamol level is often important when the product may contain paracetamol or the ingredients are uncertain. Other tests are selected according to the symptoms and possible substances involved.

Standard urine drug screens do not reliably confirm or rule out pheniramine poisoning. They can also produce misleading results.

## Treatment and management

Treatment takes place in an emergency department or hospital when poisoning is suspected. The main approach is supportive care. This means protecting breathing and circulation while the body clears the medicine.

Care may include monitoring of oxygen level, temperature, blood pressure, and heart rhythm. Oxygen, intravenous fluids, or breathing support may be needed in more serious cases.

Agitation and seizures are usually treated with medicines that calm excessive brain activity. Someone who is very agitated may also need cooling and protection from accidental injury. A urinary catheter may be used if bladder retention is severe.

If the ECG shows that electrical conduction through the heart has become dangerously slow or abnormal, hospital clinicians may give intravenous sodium bicarbonate. This treatment is guided by ECG findings and specialist toxicology advice.

Activated charcoal can bind some medicine in the digestive tract. It is considered only in selected cases, generally when treatment is sought early and the airway can be protected. It can enter the lungs if given to someone who is drowsy, vomiting, or having seizures. It should not be used at home unless a poison specialist specifically directs it.

Physostigmine can reverse severe anticholinergic confusion in carefully selected patients. It is not a routine antidote for every antihistamine overdose. It may be unsafe when there is an abnormal ECG, seizure risk, or a possible mixed overdose, so it requires expert assessment and continuous monitoring.

Do not make the person vomit. Do not give food, drinks, or another medicine in an attempt to cancel the effects unless a poison service or emergency clinician instructs you to do so.

Observation continues until mental alertness, vital signs, and the ECG are stable. People with significant symptoms may need admission to hospital or intensive care.

## Complications

Complications are more likely after severe poisoning, prolonged agitation, repeated seizures, or delayed treatment.

Possible complications include an abnormal heart rhythm, low blood pressure, aspiration of vomit into the lungs, and breathing failure. Severe overheating or continuous muscle activity can damage muscle tissue. This is called rhabdomyolysis and may lead to kidney injury.

Confusion or poor coordination can result in falls or other injuries. A prolonged seizure, lack of oxygen, or cardiac arrest can cause lasting brain or organ injury. Death is possible in severe poisoning, although many people recover with timely supportive treatment.

If another ingredient was taken, it may create a separate complication. In particular, liver injury from paracetamol may develop after the early effects of pheniramine have started to improve.

## Prevention

Most accidental pheniramine overdoses can be prevented.

Keep medicines in their original, labelled containers and store them out of sight and reach of children. Locked storage is safer when young children or someone at risk of self-harm lives in the home.

Check the active ingredients before combining allergy, cold, cough, or sleep products. Brand names can differ even when products contain the same antihistamine. Follow the package directions and use the measuring device supplied with liquid medicine.

Avoid taking another dose because relief has not started as quickly as expected. If a dose may have been repeated accidentally, contact a poison service rather than waiting for symptoms.

Do not mix pheniramine with alcohol or other sedating substances unless a healthcare professional has confirmed that the combination is appropriate. Return unused medicines through a pharmacy or local medicine-disposal program rather than keeping unnecessary supplies.

Intentional overdose cannot always be prevented through storage alone. Safe storage, smaller available quantities, and timely mental health support can reduce access during a crisis.

## Living with it and what to expect

Pheniramine overdose does not usually become a chronic condition. The immediate effects often improve as the medicine leaves the body, although moderate or severe poisoning may require monitoring and treatment for a day or longer.

A person who remains alert, has a normal ECG, and develops no concerning symptoms may be discharged after an appropriate observation period. The required observation time is based on the product, symptoms, test results, and other substances involved rather than a single rule for everyone.

Most people who recover without a major complication do not have lasting effects. Follow-up may still be advised to review medicines, discuss safer storage, or recheck an injury or abnormal test result.

Recovery can take longer after complications such as aspiration, kidney injury, prolonged

seizures, cardiac arrest, or lack of oxygen. Follow-up then focuses on the affected organs and rehabilitation needs.

After an intentional overdose, mental health assessment and follow-up are important parts of care. This is intended to provide support, address the circumstances that led to the overdose, and reduce the chance of another crisis.

## When to get medical help

Contact a poison information service immediately if pheniramine overdose is possible, even if there are no symptoms. Do not wait for drowsiness, confusion, or heart symptoms to appear. In the United States, Poison Control is available at 1-800-222-1222. Elsewhere, use your local poison service or emergency medical number.

Call emergency services now if the person:

While waiting for help, remove remaining medicine from reach and keep the packaging. Place an unconscious but breathing person on their side if it is safe to do so. Do not give anything by mouth and do not leave the person alone.

Routine follow-up is different from emergency care. After recovery, arrange recommended follow-up for medication review, ongoing complications, or mental health support. New severe symptoms after discharge need urgent reassessment.

- Is difficult to wake, collapses, or loses consciousness
- Has trouble breathing or has blue or grey lips
- Has a seizure
- Is severely confused, agitated, or hallucinating
- Faints or has chest pain
- Has a very fast or irregular heartbeat
- Develops severe overheating or cannot be kept safe

## Common questions

How much pheniramine causes an overdose?

There is no single amount that is safe to assess without professional advice. Risk is affected by the product strength, age, body size, other medicines, and medical history. Contact a poison service after any suspected extra amount rather than using symptoms to decide.

How quickly does pheniramine overdose start?

Effects often begin within hours, but timing can differ. Combination products, delayed stomach emptying, or other substances may change when symptoms appear. Feeling well immediately after taking it does not rule out later poisoning.

Can I sleep off too much pheniramine?

No. Sleepiness can deepen, and abnormal heart rhythms or breathing problems may not be obvious to the affected person. Get immediate poison-service or emergency advice.

Is there an antidote?

There is no routine antidote used for every case. Supportive care is the main treatment. Physostigmine may be used for severe anticholinergic delirium in selected patients, but only with specialist oversight because it can be unsafe in some overdoses.

Will pheniramine overdose cause permanent damage?

Most people recover fully if serious complications do not occur. Lasting problems are more likely after prolonged seizures, lack of oxygen, cardiac arrest, severe muscle injury, or damage from another ingredient.

What if the medicine also contains paracetamol?

Seek urgent advice even if the person feels well. Paracetamol can injure the liver before clear symptoms appear, and early testing helps determine whether its specific antidote is needed.

## Sources

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