CONDITION

Butazolidin overdose

Learn how phenylbutazone overdose can affect the stomach, kidneys, blood, brain, and other organs, and why prompt poison-control advice is important.

WHAT IT IS
Phenylbutazone NSAID poisoning

BODY SYSTEM
Digestive, kidneys, liver, blood and nervous system

MAIN SYMPTOMS
Nausea, vomiting, abdominal pain, dizziness

WHAT CAUSES IT
Excess or repeated phenylbutazone exposure

HOW IT IS DIAGNOSED
Exposure history, blood and urine tests

MAIN TREATMENT
Supportive hospital care

CAN IT BE CURED?
Sometimes - outcome depends on organ injury

IS IT AN EMERGENCY?
Sometimes - collapse, seizure, severe breathing trouble or heavy bleeding

LONG-TERM OUTLOOK
Outcome varies with exposure, treatment speed and organ injury

Overview

Butazolidin is a former brand name for phenylbutazone , a nonsteroidal anti-inflammatory drug, or NSAID like ibuprofen or naproxen . NSAIDs reduce pain, inflammation, and fever. Phenylbutazone was once used for conditions such as arthritis and gout, but it has largely fallen out of human use in many countries because it can cause serious side effects, including stomach bleeding and disorders of the blood-forming bone marrow.

Phenylbutazone is still used in some veterinary settings, especially for horses. Human poisoning may therefore involve an old prescription, a veterinary product, or medication obtained outside the usual pharmacy system.

An overdose happens when someone swallows more phenylbutazone than the body can safely process. Toxicity can also develop after repeated exposure, even without one clearly identified

large dose. The medicine can injure the digestive tract, kidneys, liver, blood cells, and nervous system. Because phenylbutazone remains in the body for a relatively long time, symptoms may continue or worsen after the initial exposure.

A suspected overdose needs prompt professional guidance, even if the person feels well. In the United States, call Poison Control at 1-800-222-1222 or use its online tool. Outside the United States, contact the local poison information service or emergency medical system. Do not wait for symptoms and do not make the person vomit unless a poison specialist specifically instructs you to do so.

Call emergency services immediately if the person collapses, has a seizure, cannot be awakened, has severe trouble breathing, or is bleeding heavily.

Symptoms

Symptoms depend on how much phenylbutazone entered the body, whether exposure happened once or repeatedly, and the person's overall health. Other medicines or substances may also change the clinical picture.

Early symptoms often involve the stomach and nervous system. They may include:

More serious poisoning can cause vomiting of blood, black or tar-like stools, very little urine, low blood pressure, severe weakness, seizures, or loss of consciousness. Kidney injury may lead to swelling, changes in urination, or abnormal levels of salts and acids in the blood.

Phenylbutazone can also affect blood cell production. Warning signs may include unexplained bruising, unusual bleeding, fever, sore throat, mouth sores, pale skin, or marked tiredness. These problems may not appear immediately. A fever or sore throat after exposure can be important because a low white blood cell count may make it harder to fight infection.

Liver injury may cause yellow skin or eyes, dark urine, itching, nausea, or pain in the upper right side of the abdomen. A severe skin reaction may begin with a spreading rash, blisters, peeling skin, or sores around the mouth or eyes.

Symptoms alone cannot show how serious an exposure is. Someone who appears well may still need observation or blood tests based on the amount, timing, and product involved.

- Nausea, vomiting, or abdominal pain
- Heartburn or stomach irritation
- Dizziness, headache, or ringing in the ears
- Unusual sleepiness, confusion, or agitation

- Sweating or rapid breathing

Causes and risk factors

An overdose may result from accidentally swallowing phenylbutazone, taking repeated doses too close together, confusing it with another medicine, or using a veterinary product. Intentional self-harm is another possible cause and requires immediate medical and emotional support.

Children can be exposed when medicine is left within reach. Veterinary pastes, powders, and tablets may contain amounts or concentrations intended for large animals, so the package should not be used to estimate a safe human amount.

The risk of complications may be greater in people who have:

Taking phenylbutazone with another NSAID, aspirin, a blood thinner, a corticosteroid, or certain other medicines may increase the chance of bleeding or kidney injury. Alcohol may add to stomach irritation and bleeding risk. These factors do not predict exactly what will happen, but they help clinicians decide what monitoring is needed.

Never use phenylbutazone made for animals in a person. The formulation, concentration, and quality controls may differ from medicines intended for human use.

- Kidney or liver disease
- A history of stomach ulcers or digestive-tract bleeding
- Dehydration from vomiting, diarrhea, heat, or poor fluid intake
- A blood or bone marrow disorder
- Heart failure or another condition affected by fluid balance
- Older age or frailty

Diagnosis

Diagnosis begins with the exposure history and a physical examination. Clinicians will ask what product was involved, how much may have been taken, when it happened, and whether other medicines, alcohol, or drugs were involved. They may also ask about existing kidney, liver, stomach, heart, or blood problems.

Bring the container, label, photograph, or veterinary packaging to the hospital if it can be done safely. Do not delay emergency care to search for it.

There is no commonly used rapid blood test that confirms phenylbutazone poisoning or reliably predicts its severity. Evaluation instead focuses on organ function and developing complications. Tests may include:

When the substance or circumstances are uncertain, clinicians may test for common co-ingestants such as acetaminophen or salicylates. In an intentional overdose, a mental health assessment is usually part of care after immediate medical concerns have been addressed.

- A complete blood count to check red cells, white cells, and platelets
- Electrolyte and kidney function tests
- Liver blood tests
- Urinalysis to look for blood, protein, or other signs of kidney injury
- Blood-clotting tests when bleeding or liver injury is suspected
- A blood gas test in a person who is very ill or breathing abnormally
- An electrocardiogram to examine heart rhythm

Treatment and management

There is no specific antidote that reverses phenylbutazone poisoning. Treatment supports breathing, circulation, kidney function, and other body systems while the medicine is eliminated.

At home, do not give food, drinks, activated charcoal, or home remedies unless Poison Control or another qualified clinician recommends them. Do not induce vomiting. If the person vomits on their own, place them on their side if they are drowsy and it is safe to do so.

In an emergency department, care may include close observation, repeated vital signs, blood and urine testing, and intravenous fluids. Fluids are given carefully because both dehydration and fluid overload can be harmful, especially when kidney or heart function is reduced.

Activated charcoal can bind some medicine remaining in the digestive tract. Medical professionals may consider it soon after a potentially dangerous ingestion when the expected benefit outweighs the risk. It is not given routinely in every case and can be dangerous if a drowsy person cannot protect their airway.

Other hospital treatments depend on the complications present. Clinicians may provide oxygen or breathing support, medicines for seizures, treatment for low blood pressure, or therapy for gastrointestinal bleeding. Blood products may be needed for major bleeding or

severe blood cell abnormalities.

Kidney replacement therapy, often called dialysis, may be needed to manage severe kidney failure, dangerous electrolyte changes, or an abnormal buildup of acid. However, dialysis may not remove phenylbutazone efficiently because much of the drug binds to proteins in the blood. Its role is therefore usually to treat complications rather than to directly clear the medicine.

Observation may need to continue after initial symptoms improve. The appropriate length of monitoring depends on the exposure, test results, symptoms, and medical history.

Complications

Most concerns involve injury to the digestive tract, kidneys, liver, blood, or brain. Possible complications include:

Some complications are delayed. Bone marrow injury, for example, may not be obvious during the first evaluation. This is why clinicians may arrange repeat blood counts even after a person has returned home.

The likely outcome varies. It depends on the amount and formulation involved, how quickly treatment begins, other substances taken, and whether organ injury develops. A poison specialist or medical toxicologist can help interpret these factors for the individual situation.

- Stomach or intestinal ulceration, bleeding, or perforation
- Acute kidney injury and reduced urine production
- Dangerous changes in electrolytes or the body's acid balance
- Liver inflammation or liver failure
- Seizures, coma, or breathing failure in severe poisoning
- Low red blood cells, white blood cells, or platelets
- Rare but serious failure of the bone marrow to produce blood cells
- Severe allergic or blistering skin reactions
- Circulatory shock after major bleeding or severe toxicity

Follow up

Follow the discharge plan provided by the treating clinician or poison center. Follow-up may

include repeat blood counts and tests of kidney or liver function. Attend these appointments even if symptoms have resolved, because some abnormalities can develop later.

Ask before restarting NSAIDs, aspirin, blood thinners like warfarin or apixaban , or other medicines that may affect the kidneys or bleeding risk. Do not take another person's medicine or substitute a veterinary product.

Seek prompt medical advice for new fever, sore throat, mouth ulcers, unusual bruising, worsening weakness, reduced urination, persistent vomiting, abdominal pain, rash, or yellow skin or eyes.

Return to emergency care immediately for vomiting blood, black stools with weakness or fainting, severe breathing difficulty, a seizure, inability to wake, confusion that is getting worse, or very little to no urine.

After an accidental exposure, store all human and veterinary medicines in their original containers, locked away from children and separated from food. Dispose of old phenylbutazone through a pharmacy or approved medicine take-back program rather than keeping it for possible future use.

If the overdose may have been intentional, follow-up should also address emotional safety. A clinician can help arrange crisis support and mental health care. If there is an immediate risk of further self-harm, contact emergency services or the appropriate crisis service now.

Sources

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