CONDITION

Diazepam overdose

Diazepam overdose happens when diazepam causes harmful sedation, poor coordination, or slowed breathing.

WHAT IT IS
Harmful effects from taking too much diazepam

BODY SYSTEM
Nervous system and breathing

MAIN SYMPTOMS
Severe sleepiness, slurred speech, poor coordination, slow breathing

WHAT CAUSES IT
Taking too much diazepam, sometimes with other sedatives

HOW IT IS DIAGNOSED
Symptoms, exposure history, examination, and targeted tests

MAIN TREATMENT
Supportive monitoring and breathing support

CAN IT BE CURED?
Yes, most recover with prompt supportive care

IS IT AN EMERGENCY?
Yes, any suspected overdose needs immediate advice

LONG-TERM OUTLOOK
Usually full recovery after isolated overdose

Overview

Diazepam is a benzodiazepine medicine. It is used for conditions such as anxiety, muscle spasms, seizures, and symptoms of alcohol withdrawal. It slows activity in the brain by strengthening the effects of gamma-aminobutyric acid, or GABA, a chemical that reduces nerve activity.

A diazepam overdose happens when the medicine produces harmful effects. This may follow a large single dose, repeated extra doses, or use with substances that also slow the brain and breathing.

An overdose involving diazepam alone often causes marked sleepiness, confusion, and poor coordination. Life-threatening breathing problems are less common with diazepam alone than when it is combined with opioids like oxycodone or morphine , alcohol, sleeping medicines, or

other sedatives. However, it is not possible to judge the risk safely at home.

Any suspected overdose needs immediate advice from an emergency service or poison centre, even if the person is still awake or has no symptoms yet.

Symptoms

Symptoms can begin with increasing drowsiness. The person may be difficult to keep awake, speak unclearly, or appear intoxicated. Because diazepam is long-acting, symptoms may continue or return after an initial improvement.

Possible symptoms include:

Some people become restless, agitated, or aggressive rather than sleepy. This is an uncommon reaction.

Blue, grey, or very pale lips or skin, pauses in breathing, severe breathing difficulty, collapse, a seizure, or inability to wake are emergency signs. Skin colour changes may be harder to see on darker skin, so also look for abnormal breathing and lack of response.

These symptoms are not specific to diazepam. Low blood sugar, stroke, head injury, infection, and overdoses involving other substances can look similar.

- Extreme sleepiness or difficulty waking
- Confusion, slowed responses, or unusual behaviour
- Slurred speech
- Poor balance, weakness, or unsteady walking
- Blurred vision
- Slow or shallow breathing
- Low blood pressure, sometimes causing faintness
- Reduced consciousness or coma in severe cases

Causes and risk factors

An overdose may happen after an accidental extra dose, confusion between medicines, recreational use, or deliberate self-harm. Children can be exposed by swallowing medicine that was not stored securely.

The greatest danger often comes from combining diazepam with another substance that

slows the central nervous system. This includes opioids, alcohol, some sleeping medicines, other benzodiazepines like diazepam or lorazepam , and certain sedating mental health medicines. These combinations can suppress the brain signals that control breathing.

Risk may also be higher when:

Regular use can cause physical dependence. This means the body adapts to the medicine and withdrawal can occur if its effects are suddenly blocked or the medicine is stopped abruptly. Dependence does not protect someone from overdose.

- Diazepam was not prescribed for the person taking it
- Several medicines or unknown substances were taken
- The person is older or physically frail
- There is significant lung, liver, or kidney illness
- The person has sleep-related breathing problems
- Diazepam has been taken regularly for a long time

Diagnosis

Diazepam overdose is diagnosed mainly from the circumstances, symptoms, and medical examination. Emergency staff will check breathing, oxygen level, heart rate, blood pressure, temperature, alertness, and signs of injury or another illness.

Information about what was taken is helpful. This includes the medicine name, tablet strength, possible amount, time of exposure, and whether alcohol, opioids, or other drugs were involved. Bring the container or packaging if this can be done safely. Do not delay emergency care to search for it.

Tests may include blood glucose, an electrocardiogram to record the heart's electrical activity, and blood tests to assess organ function or look for other common poisons. Blood gases may be checked if breathing is affected.

A urine drug screen may detect benzodiazepines or their breakdown products. However, it usually cannot show exactly when diazepam was taken, how much was taken, or whether it is causing the current symptoms. A negative screen also does not always rule out exposure. Treatment is therefore guided by the person's condition rather than a drug screen alone.

Treatment and management

Treatment focuses on protecting breathing and supporting the body while diazepam is cleared. The person may be observed in an emergency department because sedation can deepen or return.

Care may include oxygen, regular monitoring, fluids through a vein, and treatment of injuries or complications. A breathing tube and mechanical ventilation may be needed if the person cannot protect their airway or breathe adequately.

Activated charcoal is not routinely used for benzodiazepine overdose. A very sleepy person may inhale it into the lungs. Specialists consider it only in selected circumstances where the likely benefit outweighs this risk.

Flumazenil is a medicine that can reverse benzodiazepine sedation. It is not routinely given in diazepam overdose. In people who use benzodiazepines regularly, it can cause sudden withdrawal or seizures. It may also trigger seizures after an overdose involving certain other medicines. Its effects can wear off before diazepam does, allowing sedation to return.

Clinicians may consider flumazenil in carefully selected cases, such as some medically supervised sedation complications or an isolated accidental exposure in someone without benzodiazepine dependence or seizure risk.

If an opioid may also have been taken, emergency responders may use naloxone, which reverses opioid effects. Naloxone does not reverse diazepam itself.

Complications

Most complications result from reduced alertness or breathing rather than direct injury to an organ.

A person who is deeply sedated may vomit and breathe stomach contents into the lungs. This is called aspiration and can cause lung inflammation or pneumonia. Falls, head injuries, dehydration, and pressure injuries can also occur.

Severe or prolonged breathing suppression can reduce oxygen reaching the brain and other organs. This is more likely when diazepam has been combined with opioids, alcohol, or other sedatives.

Death is possible, especially in mixed overdoses. An isolated diazepam overdose generally has a better outlook when breathing is supported promptly.

Prevention

Not every overdose can be prevented, but careful storage and medicine use can reduce the risk.

Take diazepam only as directed on its label. Do not take an extra dose to make up for one you missed unless the prescribing instructions specifically say to do so. If you are uncertain, ask a pharmacist or the prescribing service.

Avoid alcohol while taking diazepam. Before combining it with opioids, sleeping medicines, or other sedating drugs, make sure the prescriber and pharmacist know everything you take. Do not use another person's diazepam or share your own medicine.

Keep tablets in their original labelled container, away from children and anyone for whom they were not prescribed. A locked storage place may be appropriate. Return unwanted medicine through a pharmacy or local medicine-disposal programme rather than keeping it "just in case."

If taking too much medicine is linked to emotional distress or thoughts of self-harm, storing smaller quantities or having a trusted person help manage medicines may form part of a safety plan. This should be arranged with a healthcare professional rather than by suddenly stopping diazepam.

Living with it and what to expect

Diazepam overdose is an acute event, not usually a lasting condition. Diazepam and its active breakdown products can remain in the body for a long time. Sleepiness and poor coordination may therefore continue for many hours and sometimes longer, particularly after a large exposure or in older adults.

People with an isolated overdose often recover fully with observation and supportive care. Recovery may take longer when other substances were involved, breathing was impaired, or complications such as aspiration occurred.

After discharge, temporary tiredness, slowed thinking, or poor balance may remain. Follow the discharge advice about driving, work, alcohol, and restarting medicines. Do not make independent changes to regular diazepam if you may be physically dependent, because sudden withdrawal can cause serious symptoms, including seizures.

Routine follow-up may be needed to review how the overdose happened, check whether the prescription remains appropriate, and reduce the chance of another exposure. If it involved deliberate self-harm, mental health assessment and ongoing support are important parts of recovery.

When to get medical help

Call emergency services now if someone:

If the person is not breathing normally, begin cardiopulmonary resuscitation if you know how and follow the emergency dispatcher's instructions. If they are unconscious but breathing, place them on their side if it is safe to do so. Do not make them vomit or give food, drink, or another medicine.

For any suspected overdose without severe symptoms, contact a poison centre or urgent medical service immediately. In the United States, Poison Control is available at 1-800-222-1222 . Elsewhere, use your local poison information service. Do not wait for symptoms to appear.

Routine follow-up is appropriate after emergency care if there are questions about ongoing diazepam use, dependence, medicine storage, or emotional wellbeing. New breathing difficulty, worsening drowsiness, fainting, or inability to wake is not a routine issue and needs emergency help.

- Cannot be awakened or has collapsed
- Is breathing slowly, shallowly, irregularly, or not at all
- Has blue, grey, or unusually pale lips or skin
- Has a seizure
- May have taken diazepam with opioids, alcohol, or unknown substances
- Has taken diazepam as an act of self-harm

Common questions

Can a diazepam overdose be fatal?

Yes. The risk is greatest when diazepam is combined with opioids, alcohol, or other sedatives. Severe breathing suppression, aspiration, or prolonged lack of oxygen can be fatal. Prompt emergency care improves the chance of recovery.

How much diazepam causes an overdose?

There is no single amount that predicts an overdose for everyone. Risk is affected by age, health, regular benzodiazepine use, the amount taken, and other substances involved. Any amount above what was prescribed, or any accidental exposure in a child, warrants immediate poison-centre or medical advice.

How long does a diazepam overdose last?

Marked sedation may last for hours, and milder drowsiness or poor coordination can last longer. Diazepam is long-acting, and its breakdown products are also active. Duration is often longer after a large dose, repeated doses, or use with other sedatives.

Can I let someone sleep it off?

No. It can be difficult to tell ordinary sleep from worsening loss of consciousness, and breathing may slow without being noticed. Contact emergency services or a poison centre and follow their instructions. Stay with the person while waiting for help.

Is flumazenil the antidote for diazepam?

Flumazenil can reverse benzodiazepine effects, but it is not safe or useful in every overdose. It can cause seizures or sudden withdrawal, particularly after long-term benzodiazepine use or a mixed overdose. A medical toxicology or emergency team decides whether it is appropriate.

What should I do after accidentally taking an extra dose?

Do not take further diazepam until you have received specific advice. Contact a pharmacist, poison centre, or urgent medical service and provide the tablet strength, amount, time taken, and other medicines or substances used. Call emergency services for unusual sleepiness, breathing changes, collapse, or difficulty waking.

Sources

- DailyMed: VALIUM - diazepam tablet prescribing information , U.S. National Library of Medicine
- Benzodiazepine Toxicity , StatPearls, NCBI Bookshelf
- Lavonas EJ, Akpunonu PD, Arens AM, et al. 2023 American Heart Association Focused Update on the Management of Patients With Cardiac Arrest or Life-Threatening Toxicity Due to Poisoning . Circulation . 2023
- Sivilotti MLA. Flumazenil, naloxone and the 'coma cocktail' . British Journal of Clinical Pharmacology . 2016;81(3):428-436
- Chyka PA, Seger D, Krenzelok EP, Vale JA. Position paper: Single-dose activated charcoal . Clinical Toxicology . 2005;43(2):61-87
- Clinical Practice Guidelines: Benzodiazepine poisoning , Royal Children's Hospital Melbourne