



Using benzodiazepines in Children and Adolescents



Overview

Benzodiazepines are group of medications used to treat several different conditions. Some examples of these medications include: **lorazepam (Ativan®); clonazepam (Rivotril®); alprazolam (Xanax®)** and **oxazepam (Serax®).** Other benzodiazepine medications are available, but are less commonly used in children and adolescents.

What are benzodiazepines used for?

Benzodiazepines may be used for the following conditions:

- anxiety disorders: generalized anxiety disorder; social anxiety disorder; post-traumatic stress disorder (PTSD);
 panic attacks/disorder; excessive anxiety prior to surgery
- sleep disorders: trouble sleeping (insomnia); waking up suddenly with great fear (night terrors); sleepwalking
- seizure disorders (epilepsy)
- alcohol withdrawal
- treatment of periods of extreme slowing or excessive purposeless motor activity (catatonia)

Your doctor may be using this medication for another reason. If you are unclear why this medication is being prescribed, please ask your doctor.



How do benzodiazepines work?

Benzodiazepines works by affecting the activity of the brain chemical (neurotransmitter) called GABA. By enhancing the action of GABA, benzodiazepines have a calming effect on parts of the brain that are too excitable. This in turn helps to manage anxiety, insomnia, and seizure disorders.

How well do benzodiazepines work in children and adolescents?

When used to treat anxiety disorders, benzodiazepines decrease symptoms such as nervousness, fear, and excessive worrying. Benzodiazepines may also help with the physical symptoms of anxiety, including fast or strong heart beat, trouble breathing, dizziness, shakiness, sweating, and restlessness. Typically, benzodiazepines are prescribed to manage anxiety symptoms that are uncomfortable, frightening or interfere with daily activities for a short period of time before conventional anti-anxiety treatments like cognitive-behavioural therapy or anti-anxiety takes effect.

Benzodiazepines may also be used to reduce agitation in episodes of elevated mood (mania) or psychosis. Benzodiazepines do not cure anxiety disorders, but may help to improve your overall functioning. Whenever possible, the addition of behavioural therapy such as *Cognitive Behaviour Therapy (CBT)* to this medication may help to increase the potential for benefits.

When used to improve sleep, benzodiazepines may shorten the time it takes you to fall asleep, decrease the number of times you wake up during the night, and increase your total sleep duration. Before starting treatment with benzodiazepine for sleep, it is suggested that you try behavioural changes first to see if you have a need for medication. On the next page are some suggestions for developing good sleep habits (sleep hygiene). Sometimes, good sleep hygiene may be all that is needed to improve sleep difficulties. Whenever possible, adding good sleep hygiene strategies to benzodiazepine therapy increases the chance you will benefit from taking this medication.

Sleep hygiene strategies:

- Avoid caffeine (from tea, coffee, colas or energy drinks) and alcohol, nicotine or other recreational drugs
- Keep a regular sleep/wake schedule every day; avoid sleeping in or napping during the day
- Avoid stimulating activities before bedtime (e.g. computer or television time or exercise late in the evening)
- Ensure a quiet and comfortable sleep environment (e.g. comfortable temperature, dark room, no pets in bed)
- Doing something relaxing or enjoyable before bedtime (e.g. listen to soothing music or take a warm bath)
- avoid large meals just before bedtime
- Exercise regularly (during the daytime)
- Use your bedroom only for sleep; remove the clock from direct eyesight
- If you are not asleep within 20 minutes, get up and go to another room. Come back to bed when you feel drowsy.



How should benzodiazepines be taken?

This depends on the medication that is prescribed for you. The dose that gives optimal benefit with minimal side effects is different for each person. Your doctor will determine the dose of benzodiazepine that works best for you, based on the condition being treated and your response to this medication. Benzodiazepine usage varies from only occasional use (as needed) to basis up to four or more times daily on a regular basis. When used on an as needed basis, limit use to no more than 4 days per week, whenever possible.

For sleep difficulties, benzodiazepines may be taken regularly once daily at bedtime or on an as-needed basis. Whenever possible, take benzodiazepines intermittently (e.g., skipping a nightly dose after having good sleep for one or two nights) and limit benzodiazepine use to no more than 4 days per week.

Whenever possible, use the lowest possible dose of benzodiazepine that works well for you. Generally, the length of treatment should be kept as short as possible; however, this depends on the disorder being treated and the symptoms you have. Do not exceed the recommended dosage without first consulting your doctor. It is important to avoid drinking alcohol while taking benzodiazepines, as it may result in greatly increased side effects (e.g., intense drowsiness, poor coordination or even loss of consciousness). Avoid eating grapefruit or drinking grapefruit juice while taking clonazepam or alprazolam. Grapefruit can affect how these medications works for you, and combined use may lead to excessive drowsiness or side effects.

Clonazepam, alprazolam and oxazepam are available in tablets that are taken by mouth. Lorazepam is available as regular tablets that are taken by mouth, sublingual tablets that are dissolved under the tongue, and as an injection. If you are taking lorazepam sublingual tablets, place the tablet(s) under your tongue and do not swallow for two minutes. This allows enough time for the medication to be absorbed.



Tip: When taking this medication, avoid large amounts of caffeinated products (e.g., daily intake of more than two cups of coffee or three cups of tea or cola). This may decrease the effect of benzodiazepines and may lead to increased anxiety or difficulty sleeping.

When will benzodiazepines start working?

You should see improvements in symptoms of anxiety, insomnia, alcohol withdrawal or catatonia within 30-60 minutes of taking a benzodiazepine.



How long do I have to take benzodiazepines?

This depends on the condition being treated and the symptoms you have. Ideally, use of benzodiazepines should be kept as short as possible (i.e. less than 2 weeks). However, some patients may need to take benzodiazepines for a longer period of time. For anxiety disorders, patients may only

take benzodiazepines on an as-needed basis for immediate symptoms. However, some patients may need to take this medication regularly for several weeks to control their anxiety symptoms. For insomnia, benzodiazepines may be taken occasionally on an as-needed basis when you have sleep difficulties. Whenever possible, limit treatment to less than 2 to 4 weeks. Discuss with your doctor about how long you may need to take benzodiazepines.

<u>Do not increase, decrease, or stop taking this medication without discussing it with your doctor</u>. If you stop taking this medication suddenly, it is possible that your symptoms may return or you may have a bad reaction.

Are benzodiazepines addictive?

Benzodiazepines have a potential to be addictive, and their use may lead to physical and psychological dependence or abuse. As the dosage and the length of benzodiazepine treatment increases, the risk for dependence or abuse becomes higher as well. Using benzodiazepines for a short period of time minimizes this risk.

If you have been taking benzodiazepines regularly for a long period of time (e.g., two weeks to a few months) and you suddenly stopped taking this medication, you may experience withdrawal effects such as worsened anxiety, irritability, shaking, agitation, sweating, aches and pains, muscle cramps, nausea, vomiting, confusion or worsened sleep difficulties. Although rare, seizures, hallucinations (seeing or hearing things that are not there) or uncontrollable behaviour may also occur. If you have been taking benzodiazepines regularly, do not stop this medication suddenly without first consulting your doctor. If you and your doctor decide to stop using benzodiazepines, your doctor will explain how to safely lower the dose gradually (e.g., over a number of weeks) to prevent uncomfortable and potentially dangerous withdrawal effects as your body adjusts to being without it.

What are the side effects of benzodiazepines and what should I do if I get them?

As with most medications, side effects may occur when taking benzodiazepines. Most side effects are mild and almost always decrease with time. It is also possible for some individuals to experience a side effect that they feel is serious or long-lasting. If this occurs, speak to your doctor about ways to manage them. Below are some of the more common side effects of taking benzodiazepines. In brackets are suggested ways to lessen these effects.

Common side effects

Side effects are usually more common when starting a medication or after a dose increase. If any of these side effects is too troublesome for you, please discuss them with your doctor, nurse or pharmacist.

- An increase in sleep difficulties or anxiety after you stop taking benzodiazepine (also called a "rebound effect") (talk to your doctor about how to safely stop taking benzodiazepines)
- Blurred vision (this effect often becomes less noticeable over time)
- Constipation (increase exercise, fluids, vegetables, fruits and fiber)
- Decreased ability to concentrate, confusion (do not take part in activities requiring mental alertness until you know how this medication affects you)
- Dizziness or lightheadedness (try getting up slowly from a sitting or lying down position. Do not drive or operate machinery until you know how this medication affects you)
- Dry mouth (try chewing sugarless gum or sucking hard sugar-free candies, ice chips, or popsicles)
- Headache (try using a pain reliever like acetaminophen (Tylenol[®]))
- Memory problems (you may have trouble remembering things that occur within several hours after taking this
 medication. If you are taking benzodiazepines to help with insomnia, only take this medication when you are
 able to have a full night's sleep.)
- Morning drowsiness following benzodiazepine use (this effect usually goes away if the dose is decreased.
 Do not drive or operate machinery until you know how this medication affects you.)
- Nausea, vomiting (try taking with food)
- Weakness, incoordination (do not drive or operate machinery or take part in activities that require physical coordination until you know how this medication affects you)
- Vivid dreams or nightmares

Uncommon side effects (e.g. those that occur in less than 5% of patients)

Contact your doctor **IMMEDIATELY** if you have any of these side effects:



- Behavioural changes: excitement, talkativeness, irritability, anger, aggression, trouble sleeping, nightmares, excessive elevated mood, hyperactivity, uncontrollable behaviour, or memory loss
- Hallucinations (hearing or seeing things that are not there)
- Imbalance leading to falls
- Thoughts of self-harm, hostility or suicide
- Complex sleep-related behaviours: very rarely, patients taking benzodiazepines may get out of bed without being fully
 awake and take part in activities that they are unaware of (e.g. cooking, eating, driving and walking), and have no
 memory of the event.



This medication may affect your ability to drive, operate machinery or carry out tasks that require mental alertness. This effect may be more pronounced if taken with alcohol.

What precautions should my doctor and I be aware of when taking benzodiazepines?

Several medications can interact with benzodiazepines, including commonly used sleep aides or antihistamines such as diphenhydramine (Benadryl®, Nytol®) and doxylamine (Unisom®); antidepressants such as fluoxetine (Prozac®) and amitriptyline (Elavil®); mood stabilizers such as valproic acid/divalproex (Depakene®/Epival®); scopolamine (Transderm-V®), and several others. If you are (or begin) taking any other prescription or over-the-counter medications, be sure to check with your doctor or pharmacist to see if they are safe to use. Your doctor may need to change the doses of your medication(s) or monitor you carefully for side effects if you are taking certain other medications.

It is important to tell your doctor if you:

- have had allergies or bad reactions to benzodiazepines or any other medication
- drink alcohol regularly or have a history of alcohol or drug abuse/addiction
- have a lung disease or breathing problems
- have narrow-angle glaucoma (an eye disease)
- have sleep apnea (a sleep disorder in which you temporarily stop breathing while asleep)
- have liver or kidney problems
- have a seizure disorder, myasthenia gravis (a muscular disease, depression or any other psychiatric disorder
- have changes in mood or thoughts of self-harm or suicide
- miss a period, become pregnant or are trying to become pregnant or are breast-feeding

What special instructions should I follow while using benzodiazepines?

- Keep all appointments with your doctor. Inform your doctor about your sleep pattern or anxiety symptoms. Your doctor will monitor your condition and your response to this medication.
- Do not allow anyone else to use your medication.

What should I do if I forget to take a dose of benzodiazepines?

If you take a benzodiazepine regularly and you forget to take it, skip the missed dose and take your next dose at its regularly scheduled time. Do NOT double your next dose.



What storage conditions are needed for benzodiazepines?

- > Keep this medication in the original container, stored at room temperature away from moisture and heat (e.g., not in the bathroom). Keep the container tightly closed.
- Keep this medication out of reach and sight from children.

You may wish to share this information with your family members to help them to understand your treatment options. Since every person's needs are different, it is important that you follow the advice provided to you by your own doctor, nurse and/or pharmacist and speak to them if you have any questions about this medication.

Developed by the health care professionals of the Child & Adolescent Mental Health Program and reviewed by the staff of the Kelty Resource Centre.