**DRUG CLASS: BENZODIAZEPINES**

Drug Names: **ATIVAN**  
Generic Names: lorazepam  
**DALMANE**  
**HALCION**  
**KLONOPIN**  
**RESTORIL**  
**SERAX**  
**VALIUM**  
**XANAX**  

**Generic Information:** The benzodiazepines are drugs that have short-term calming and sedating effects. In psychiatry, they are used to treat anxiety, panic attacks, phobias and agitation; they are also used as sleeping medicines at times. In general medicine, they are used as anesthetics, anticonvulsants, and muscle relaxants. Benzodiazepines are active at receptors for the neurotransmitter GABA (gamma-aminobutyric acid); GABA is an inhibitory neurotransmitter that slows neuron and muscle firing rates. All benzodiazepines can be habit-forming. The table below lists available dosage preparations, typical dosages, speed of onset, and length of time the drug is active in the body (duration). (Note: There are other benzodiazepine drugs available; the ones listed are the most commonly used.)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Available as:</th>
<th>Usual dose:</th>
<th>Onset:</th>
<th>Duration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>lorazepam</td>
<td>0.5, 1, 2 mg tablets</td>
<td>0.5 to 2 mg/day</td>
<td>Rapid (&lt;1 hr)</td>
<td>Intermediate</td>
</tr>
<tr>
<td>flurazepam</td>
<td>15, 30 mg capsules</td>
<td>15 to 30 mg</td>
<td>Rapid</td>
<td>Long</td>
</tr>
<tr>
<td>triazolam</td>
<td>0.125, 0.25 mg tabs</td>
<td>0.125 or 0.25 mg</td>
<td>Rapid</td>
<td>Short</td>
</tr>
<tr>
<td>clonazepam</td>
<td>0.5, 1, 2 mg tabs</td>
<td>0.5 to 2 mg/day</td>
<td>Rapid</td>
<td>Long</td>
</tr>
<tr>
<td>temazepam</td>
<td>7.5, 15, 30 mg caps</td>
<td>7.5 to 30 mg</td>
<td>Medium (&gt;1 hr)</td>
<td>Intermediate</td>
</tr>
<tr>
<td>oxazepam</td>
<td>10, 15, 30 mg caps; 15</td>
<td>30 to 60 mg/day</td>
<td>Slow (&gt;1 hr)</td>
<td>Intermediate</td>
</tr>
<tr>
<td>diazepam</td>
<td>2, 5, 10 mg tabs</td>
<td>1 to 20 mg/day</td>
<td>Rapid</td>
<td>Long</td>
</tr>
<tr>
<td>alprazolam</td>
<td>0.25, 0.5, 1, 2 mg tabs</td>
<td>0.25 to 2 mg/day</td>
<td>Rapid</td>
<td>Intermediate</td>
</tr>
</tbody>
</table>

Most tablets can be split to get the correct dose. All of these medicines are available generically. These drugs may be taken with or without food; the onset of action may be quicker if the stomach is empty. Anxiety symptoms usually improve for as long as the drug is in your body, but may recur as the drug is eliminated. For anxiety or sleep problems that are short-term or situational, this is not generally a problem. When problems have become chronic, however, other non-addictive medication options should be considered; discuss with your clinician. Store these drugs in dry, tightly-closed, light-resistant containers out of the reach of children.

**Precautions:** Do not take one of these drugs if you have ever had an allergic reaction to it. Inform your clinician if you have any known drug allergies; if you have epilepsy, kidney or liver disease; if you are taking any other drug (prescription or non-
prescription), vitamin, supplement or herb; if you will be undergoing anesthesia or surgery while taking one of these drugs; if you have a personal or family history of developing tolerance or addiction to drugs or alcohol. Persons with certain medical conditions are usually advised not take benzodiazepines; these conditions include narrow-angle glaucoma, Alzheimer’s disease, multiple sclerosis, stroke, myasthenia gravis, and other brain disorders.

**Inform your clinician if you are or might be pregnant.** Some data indicate that benzodiazepines can cause fetal damage. They can also cause sedation that could be dangerous in nursing babies, so their use is not advisable if you are breast-feeding. Benzodiazepines have not been tested in children and are generally not recommended for use by infants or children. Metabolism of these drugs may be slowed in the elderly and their sedative effects may lead to confusion, unsteady gait, and falls. They should only be used with utmost caution, if at all, in the elderly.

**Benzodiazepines cause drowsiness in many people.** If so, avoid driving or operating machinery until you are sure your alertness and coordination are not affected.

On rare occasions, benzodiazepines can trigger abnormal high moods (mania or hypomania) in people with mood disorders. This is particularly true of alprazolam. Stop the drug immediately and call your clinician if this occurs.

**All benzodiazepines can induce tolerance and dependence.** When used in low doses for brief periods (1 to 2 weeks), or intermittently only (less than once daily), these drugs are safe and unlikely to cause habituation. Needing to increase dosage to get the same effect as before is the hallmark of developing tolerance. Such dosage escalation can lead to drug-seeking behavior from multiple providers and to frank abuse of the drug. Once habituated, withdrawal symptoms are likely to appear if the drug is suddenly stopped. Withdrawal symptoms include nervousness, restlessness and agitation, irritability, increased sweating, tremor, insomnia, and weakness. If severely addicted, the person in withdrawal may become depressed, paranoid and delirious; withdrawal seizures are also possible. Severe withdrawal is a medical emergency and should be treated in an emergency room or detox facility. Outpatient discontinuation of benzodiazepines should be done gradually with medical supervision and psychological support. Note that the benzodiazepines with rapid onset of action and short duration of activity are more likely to cause withdrawal symptoms; alprazolam is the most likely to do so.

Overdoses of benzodiazepine drugs alone are unlikely to be fatal. However, immediate emergency medical care should be sought in all cases of overdose because of the greatly increased risks when these drugs are ingested along with alcohol or other sedatives. Symptoms of overdose include sedation, confusion, lack of coordination, slurred speech, and decreased breathing rate – the person appears intoxicated or stuporous.
Interactions:

**Alcohol:** DO NOT DRINK while taking any benzodiazepine. The combination can cause dangerous suppression of vital brain functions.

**Food:** No restrictions. Minimize caffeine use; caffeine increases anxiety symptoms.

**Smoking:** Smoking may reduce the effectiveness of benzodiazepines.

**Other drugs:** Benzodiazepines may have additive sedating effects when used in combination with other sedating agents, such as antidepressants, antipsychotics, lithium, narcotic pain medicines, and antihistamines. Consult with your clinician if you are prescribed one of these medicines while taking a benzodiazepine. Kava-kava, an herbal product with calming properties, can be additively sedating as well and should be avoided. (Kava-kava can cause liver damage, an additional reason to avoid it.) Antacids may decrease the effectiveness of the benzodiazepines. Certain of the benzodiazepines have potential interactions with various other prescription medicines; be sure to let your medical and psychiatric providers know of all the medicines you are taking whenever a new medicine is prescribed.

Side Effects of Benzodiazepines:

**Common side effects** (up to 10% of users experience; notify your clinician if severe):

--drowsiness, sedation

**Less common side effects** (less than 10% of users experience; notify if severe):

--dizziness
--unsteady gait
--weakness
--amnesia, memory impairment
--disinhibition of impulse control
--increased aggression

**Note:** Side effects are more common in older persons.