

## Nonbenzodiazepine Hypnotics

Nonbenzodiazepines hypnotics include Zolpidem (Ambien), zaleplon and eszopiclone, and are indicated for short term treatment of insomnia. This class of hypnotics is more selective than benzodiazepines, as they are not indicated for chronic anxiety, muscle relaxation, or seizure disorders. Nonbenzodiazepines hypnotics act on BZ1 GABA subtype receptors to increase chloride conductance. They are rapidly metabolized by the liver and have a short half-life of roughly 2.5 hours. Patients taking these medications may display ataxia and confusion shortly after administration. Those who overdose on this class of medication can be treated with flumazenil as an antidote.



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### Indications

#### Insomnia

##### [Taped-awake-insomniac](#)

This class of drugs is effective in treating sleep disorders, such as insomnia. They show less risk for tolerance and dependence when compared to benzodiazepines.

### Mechanism of Action

#### Short Half-Life

##### [Shorts Half-Life-clock](#)

This drug class works rapidly and has a short half-life due to quick metabolism by liver enzymes.

#### Acts on BZ1 GABA receptor

##### [Bee-Z-\(1\) Wand GABA-goose receptor](#)

These drugs work by acting via the BZ1 subtype of the GABA receptor, which increases chloride conductance. This is similar to the mechanism of action of benzodiazepines, but these two drug classes are not structurally similar.

#### Less dependence

##### [Lifting away Dependence-ball-and-chain](#)

Compared to benzodiazepines, nonbenzodiazepines have overall lower risk of dependence, tolerance and abuse. They cause less day-after psychomotor depression and amnesic effects relative to older sedative-hypnotics.

### Drugs

#### Zolpidem (Ambien)

##### [Z-pigeon](#)

Zolpidem is a commonly used drug of this class, and is also known as Ambien. Zolpidem helps to reduce sleep onset latency, and may also have some minimal anxiolytic activity. Other nonbenzodiazepine hypnotics are zaleplon and eszopiclone.

### Side Effects

#### Ataxia, confusion

##### [A-taxi and Confucius](#)

Patients may become impaired after taking this medication and may have trouble coordinating muscle movements and can appear to be very confused.

### Antidote

## **Flumazenil for Overdose**

[Flute-mace-nail](#)

Effects of this drug class can be blocked or reversed by flumazenil.