

Ziprasidone

- Oral capsule: 20 mg, 40 mg, 60 mg, 80 mg
- Intramuscular injection (shortacting): 20 mg/mL

Geodon[®]

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If you or someone you know is in crisis, please call/text 988 to speak with a trained crisis counselor 24/7 and/or call 911 for emergency services. A help line and other resources are also available through the National Alliance on Mental Illness at nami.org.



What is ziprasidone and what does it treat?

Ziprasidone is a medication that works in the brain to treat schizophrenia. It is also known as a second generation antipsychotic (SGA) or atypical antipsychotic. Ziprasidone rebalances dopamine and serotonin to improve thinking, mood, and behavior.

Symptoms of schizophrenia include:

- Hallucinations hearing or seeing things that feel real but others do not see/hear
- Delusions beliefs that are not true (e.g., other people are reading your thoughts)
- Disorganized thinking trouble organizing your thoughts and making sense
- Little desire to be around other people
- Trouble speaking clearly
- Lack of motivation

Ziprasidone may help some or all of these symptoms.

Ziprasidone is also FDA approved for the following indications:

- Acute treatment of manic or mixed episodes of bipolar disorder
- Maintenance (long-term) treatment of bipolar disorder (when used with lithium or valproate)
- Acute treatment of agitation in schizophrenia

This medication sheet will focus primarily on schizophrenia. You can find more information about bipolar disorder <u>here</u>.

Ziprasidone may also be helpful when prescribed "off-label" for schizoaffective disorder. "Off-label" means that it hasn't been approved by the Food and Drug Administration for this condition. Your mental health provider should justify his or her thinking in recommending an "off-label" treatment. They should be clear about the limits of the research around that medication and if there are any other options.



What is the most important information I should know about ziprasidone?

Schizophrenia and bipolar disorder requires long-term treatment. Do not stop taking ziprasidone, even when you feel better.

With input from you, your health care provider will assess how long you will need to take the medication.

Missing doses of ziprasidone may increase your risk for worsening (relapse) of your symptoms.

Do not stop taking ziprasidone or change your dose without talking with your health care provider first.

For ziprasidone to work properly, it should be taken every day with food as ordered by your health care provider.

Are there specific concerns about ziprasidone and pregnancy?

If you are planning on becoming pregnant, notify your health care provider to best manage your medications. People living with schizophrenia and bipolar disorder who wish to become pregnant face important decisions. This is a complex decision since untreated schizophrenia and bipolar disorder has risks to the fetus, as well as the mother. It is important to discuss the risks and benefits of treatment with your doctor and caregivers.

Antipsychotic use during the third trimester of pregnancy has a risk for abnormal muscle movements (extrapyramidal symptoms [EPS]) and/or withdrawal symptoms in newborns following delivery that may need to be monitored. These may resolve within hours/days without treatment or require hospitalization for monitoring/treatment.

Caution is advised with breastfeeding since ziprasidone does pass into breast milk.

What should I discuss with my health care provider before taking ziprasidone?

- Symptoms of your condition that bother you the most
- If you have thoughts of suicide or harming yourself
- Medications you have taken in the past for your condition, whether they were effective or caused any adverse effects
- If you ever had muscle stiffness, shaking, tardive dyskinesia, neuroleptic malignant syndrome, or weight gain caused by a medication
- If you experience side effects from your medications as some side effects may pass with time, but others may require changes in the medication.
- Any psychiatric or medical problems you have, such as heart rhythm problems, long QT syndrome, heart attacks, diabetes, high cholesterol, or seizures
- If you have a family history of diabetes or heart disease
- All other medications you are currently taking (including over the counter products, herbal and nutritional supplements) and any medication allergies you have
- Other non-medication treatment you are receiving, such as talk therapy or substance abuse treatment. Your provider can explain how these different treatments work with the medication.
- If you are pregnant, plan to become pregnant, or are breastfeeding
- If you smoke, drink alcohol, or use illegal drugs

How should I take ziprasidone?

Ziprasidone is usually taken 2 times per day with food (at least 500 calories).

Typically patients begin at a low dose of medication and the dose is increased slowly over several weeks.

The dose usually ranges from 40 to 80 mg twice daily. Only your health care provider can determine the correct dose for you.

Use a calendar, pillbox, alarm clock, or cell phone alert to help you remember to take your medication. You may also ask a family member a friend to remind you or check in with you to be sure you are taking your medication.

What happens if I miss a dose of ziprasidone?

If you miss a dose of ziprasidone, take it as soon as you remember, unless it is closer to the time of your next dose. Discuss this with your health care provider. Do not double your next dose or take more than what is prescribed.



What should I avoid while taking ziprasidone?

Avoid drinking alcohol or using illegal drugs while you are taking ziprasidone. They may decrease the benefits (e.g., worsen your confusion) and increase adverse effects (e.g., sedation) of the medication.

What happens if I overdose with ziprasidone?

If an overdose occurs call your doctor or 911. You may need urgent medical care. You may also contact the poison control center at 1-800-222-1222.

A specific treatment to reverse the effects of ziprasidone does not exist.

What are the possible side effects of ziprasidone?

Common side effects

Drowsiness, extrapyramidal symptoms, headache, dizziness, nausea, constipation, restlessness

Rare/serious side effects

Some people may develop muscle related side effects while taking ziprasidone. The technical terms for these are "extrapyramidal symptoms" (EPS) and "tardive dyskinesia" (TD). Symptoms of EPS include restlessness, tremor, and stiffness. TD symptoms include slow or jerky movements that one cannot control, often starting in the mouth with tongue rolling or chewing movements.

Antipsychotics can also affect temperature regulation especially if you are in an area that is very hot or are exercising very heavily. While taking haloperidol, it is especially important to try to drink water to avoid dehydration.

Ziprasidone may increase the blood levels of a hormone called prolactin. Side effects of increased prolactin levels include females losing their period, production of breast milk and males losing their sex drive or possibly experiencing erectile problems.

Second generation antipsychotics (SGAs) increase the risk of weight gain, high blood sugar, and high cholesterol. This is also known as metabolic syndrome. Your health care provider may ask you for a blood sample to check your cholesterol, blood sugar, and hemoglobin A1c (a measure of blood sugar over time) while you take this medication.

- Information on healthy eating and adding exercise to decrease your chances of developing metabolic syndrome may be found at the following sites:
 - http://www.helpguide.org/articles/healthy-eating/healthy-eating.htm
 - o http://www.helpguide.org/home-pages/exercise-fitness.htm

Ziprasidone can affect the QTc interval in the heart which can lead to an irregular heartbeat (also known as arrhythmia). To minimize this risk, antipsychotic medications should be used in the smallest effective dose when the benefits outweigh the risks. Your doctor may order an EKG to monitor for irregular heartbeat.

All antipsychotics can cause sedation, dizziness, or orthostatic hypotension (a drop in blood pressure when standing up from sitting or lying down). These side effects may lead to falls which could cause bone fractures or other injuries. This risk is higher for people with conditions or other medications that could worsen these effects. If falls or any of these symptoms occur, contact your health care provider.

Neuroleptic malignant syndrome is a rare, life threatening adverse effect of antipsychotics which occurs in <1% of patients. Symptoms include confusion, fever, extreme muscle stiffness, and sweating. If any of these symptoms occur, contact your health care provider immediately.

Severe skin reactions have been reported with ziprasidone. These include Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) and Stevens-Johnson Syndrome which can be fatal. Seek emergency treatment immediately if a severe skin reaction occurs.



Are there any risks for taking ziprasidone for long periods of time?

Tardive dyskinesia (TD) is a side effect that develops with prolonged use of antipsychotics. Medications such as ziprasidone have been shown to have a lower risk of TD compared to older antipsychotics, such as Haldol® (haloperidol). If you develop symptoms of TD, such as grimacing, sucking, and smacking of lips, or other movements that you cannot control, contact your health care provider immediately. All patients taking either first or second generation antipsychotics should have an Abnormal Involuntary Movement Scale (AIMS) completed regularly by their health care provider to monitor for TD.

Second generation antipsychotics (SGAs) increase the risk of diabetes, weight gain, high cholesterol, and high triglycerides. (See "Serious Side Effects" section for monitoring recommendations).

What other medications may interact with ziprasidone?

Ziprasidone may block the effects of agents used to treat Parkinson's disease such as levodopa/carbidopa (Sinemet®), bromocriptine, pramipexole (Mirapex®), ropinirole (Requip®), and others.

The following medications may increase the risk of heart problems when used with ziprasidone:

- Antipsychotics, including chlorpromazine (Thorazine®), thioridizine (Mellaril®), asenapine (Saphris®), iloperidone (Fanapt®), paliperidone (Invega®), and quetiapine (Seroquel®)
- Antiarrhythmics (heart rhythm medications), including procainamide, quinidine, amiodarone (Cordarone®), dronedarone (Multaq®), and sotalol (Betapace®)

The following medications may increase the levels and effects of ziprasidone: fluoxetine (Prozac®), ketoconazole (Nizoral®), and paroxetine (Paxil®).

Carbamazepine (Tegretol®) may decrease the levels and effects of ziprasidone.

How long does it take for ziprasidone to work?

It is very important to tell your doctor how you feel things are going during the first few weeks after you start taking ziprasidone. It will probably take several weeks to see big enough changes in your symptoms to decide if ziprasidone is the right medication for you.

Antipsychotic treatment is generally needed lifelong for persons with schizophrenia. Your doctor can best discuss the duration of treatment you need based on your symptoms and illness.

- Hallucinations, disorganized thinking, and delusions may improve in the first 1-2 weeks
- Sometimes these symptoms do not completely go away
- Motivation and desire to be around other people can take at least 1-2 weeks to improve
- Symptoms continue to get better the longer you take ziprasidone
- It may take 2-3 months before you get the full benefit of ziprasidone

Summary of Black Box Warnings

Increased Mortality in Elderly Patients with Dementia Related Psychosis

- When used for dementia related psychosis in elderly people, both first generation (typical) and second generation (atypical) antipsychotics are associated with an increased risk of mortality.
- Although there were multiple causes of death in studies, most deaths appeared to be due to cardiovascular causes (e.g., sudden cardiac death) or infection (e.g., pneumonia).

Important Disclosure: This information is being provided as a community outreach effort of the American Association of Psychiatric Pharmacists. This information is for educational and informational purposes only and is not medical advice. This information contains a summary of important points and is not an exhaustive review of information about the medication. Always seek the advice of a physician or other qualified medical professional with any questions you may have regarding medications or medical conditions. Never delay seeking professional medical advice or disregard medical professional advice as a result of any information provided herein. The American Association of Psychiatric Pharmacists disclaims any and all liability alleged as a result of the information provided herein.