PATIENT & CAREGIVER EDUCATION

# Azathioprine

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

## Brand Names: US

Azasan; Imuran

## Brand Names: Canada

APO-AzaTHIOprine; AzaTHIOprine-50 [DSC]; Imuran; TEVA-AzaTHIOprine

## Warning

- Long-term use may raise your chance of cancer.
- Lymphoma and other cancers have happened in people who take this drug or drugs like it. This has been deadly in some cases. Talk with the doctor.
- A rare type of cancer called hepatosplenic T-cell lymphoma (HSTCL) has happened with this drug. These cases have been deadly. Most of the time, these cases happened in teenage or young adult males. Most of these patients were using this drug to treat certain types of bowel problems like Crohn disease and ulcerative colitis. This drug is not approved for use to treat bowel problems like these. Tell the doctor if you have ever had any type of cancer. If you have questions, talk with the doctor.

## What is this drug used for?

- It is used after a kidney transplant to keep the body from rejecting the kidney.
- It is used to treat rheumatoid arthritis.
- It may be given to you for other reasons. Talk with the doctor.

## What do I need to tell my doctor BEFORE I take this drug?

### For all uses of this drug:

- If you are allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell your doctor about the allergy and what signs you had.
- If you have ever been treated with chlorambucil, cyclophosphamide, or melphalan in the past.
- If you are taking febuxostat.

### Rheumatoid arthritis patients:

- If you are pregnant or may be pregnant. Do not take this drug if you are pregnant.

This is not a list of all drugs or health problems that interact with this drug.

Tell your doctor and pharmacist about all of your drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe for you to take this drug with all of your drugs and health problems. Do not start, stop, or change the dose of any drug without checking with your doctor.

## What are some things I need to know or do while I take this drug?

- Tell all of your health care providers that you take this drug. This includes your doctors, nurses, pharmacists, and dentists.
- Have your blood work and other lab tests checked as you have been told by your doctor.
- This drug may lower the ability of the bone marrow to make blood cells that the body needs. If blood cell counts get very low, this can lead to bleeding problems, infections, or anemia. If you have questions, talk with the doctor.
- You may have more of a chance of getting an infection. Some infections have been severe or deadly. Wash hands often. Stay away from people with infections, colds, or flu.
- You may bleed more easily. Be careful and avoid injury. Use a soft toothbrush and an electric razor.
- The chance of skin cancer may be raised. Avoid lots of sun, sunlamps, and tanning beds. Use sunscreen and wear clothing and eyewear that protects you from the sun.
- You may need to have your skin checked while you take this drug. Talk with your doctor.

- A severe and sometimes deadly reaction has happened. Most of the time, this reaction has signs like fever, rash, or swollen glands with problems in body organs like the liver, kidney, blood, heart, muscles and joints, or lungs. If you have questions, talk with the doctor.
- If you have thiopurine S-methyltransferase (TPMT) or nucleotide diphosphatase (NUDT15) deficiency, talk with your doctor.
- This drug may cause harm to an unborn baby. If you may become pregnant, you must use birth control while taking this drug. If you get pregnant, call your doctor right away. Talk with your doctor about the benefits and risks of taking this drug during pregnancy.
- Tell your doctor if you are breast-feeding. You will need to talk about any risks to your baby.

## What are some side effects that I need to call my doctor about right away?

**WARNING/CAUTION:** Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever;

wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.

- Signs of liver problems like dark urine, tiredness, decreased appetite, upset stomach or stomach pain, light-colored stools, throwing up, or yellow skin or eyes.
- Signs of infection like fever, chills, very bad sore throat, ear or sinus pain, cough, more sputum or change in color of sputum, pain with passing urine, mouth sores, or wound that will not heal.
- Signs of bleeding like throwing up or coughing up blood; vomit that looks like coffee grounds; blood in the urine; black, red, or tarry stools; bleeding from the gums; abnormal vaginal bleeding; bruises without a cause or that get bigger; or bleeding you cannot stop.
- Dizziness or passing out.
- Diarrhea.
- Muscle pain or weakness.
- Change in color or size of a mole.
- A skin lump or growth.
- Call your doctor right away if you have a swollen gland, night sweats, shortness of breath, or weight loss without trying.

- A severe brain problem called progressive multifocal leukoencephalopathy (PML) has happened with this drug. It may cause disability or can be deadly. Tell your doctor right away if you have signs like confusion, memory problems, depression, change in the way you act, change in strength on 1 side is greater than the other, trouble speaking or thinking, change in balance, or change in eyesight.

## What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

- Upset stomach or throwing up.

These are not all of the side effects that may occur. If you have questions about side effects, call your doctor. Call your doctor for medical advice about side effects.

You may report side effects to your national health agency.

You may report side effects to the FDA at 1- 800-332-1088. You may also report side effects at https://www.fda.gov/medwatch.

## How is this drug best taken?

Use this drug as ordered by your doctor. Read all information given to you. Follow all instructions closely.

### Tablets:

- Take after meals unless your doctor says otherwise.
- Keep taking this drug as you have been told by your doctor or other health care provider, even if you feel well.

### Injection:

- It is given as an infusion into a vein over a period of time.

### All products:

- You will need to take special care when handling this drug. Check with the doctor or pharmacist to see how to handle this drug.

## What do I do if I miss a dose?

### Tablets:

- Take a missed dose as soon as you think about it.
- If it is close to the time for your next dose, skip the missed dose and go back to your normal time.
- Do not take 2 doses at the same time or extra doses.

### Injection:

- Call your doctor to find out what to do.

## How do I store and/or throw out this drug?

### Tablets:

- Store at room temperature protected from light. Store in a dry place. Do not store in a bathroom.

### Injection:

- If you need to store this drug at home, talk with your doctor, nurse, or pharmacist about how to store it.

### All products:

- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

## General drug facts

- If your symptoms or health problems do not get better or if they become worse, call your doctor.
- Do not share your drugs with others and do not take

anyone else's drugs.

- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- Some drugs may have another patient information leaflet. Check with your pharmacist. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

## Consumer Information Use and Disclaimer

This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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