



---

PATIENT & CAREGIVER EDUCATION

# Mercaptopurine

This information from Lexicomp® 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

Purixan

## Brand Names: Canada

Purinethol

## What is this drug used for?

- It is used to treat a type of leukemia.
- 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?

### All products:

- 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 are breast-feeding. Do not breast-feed while you take this drug and for 1 week after your last dose.

### Tablets:

- If you have trouble swallowing.

This drug may interact with other drugs or health problems.

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 chance of getting an infection. 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.
- If you have thiopurine S-methyltransferase (TPMT) or nucleotide diphosphatase (NUDT15) deficiency, talk with your doctor.
- Talk with your doctor before getting any vaccines. Use of some vaccines with this drug may either raise the chance of an infection or make the vaccine not work as well.
- You may get sunburned more easily. Avoid sun, sunlamps, and tanning beds. Use sunscreen and wear clothing and eyewear that protects you from the sun.
- Drugs that may suppress the immune system like this drug may raise the risk of cancer. If you have questions, talk with the doctor.
- This drug may affect fertility. Fertility problems may lead to not being able to get pregnant or father a child. If you plan to get pregnant or father a

child, talk with your doctor before taking this drug.

- This drug may cause harm to an unborn baby or loss of an unborn baby. A pregnancy test will be done before you start this drug to show that you are NOT pregnant.
- If you may become pregnant, use birth control while taking this drug and for 6 months after your last dose. If you get pregnant, call your doctor right away.
- If your sex partner may become pregnant, use birth control while taking this drug and for 3 months after your last dose. If your partner gets pregnant, call the doctor right away.
- Liver problems have happened in some people who used this drug for inflammatory bowel disease (IBD) during pregnancy. This drug is not approved to treat IBD. Talk with the doctor.

## **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 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.
- A skin lump or growth.

- Change in color or size of a mole.
- Liver problems have happened with this drug. Sometimes, these have been deadly. Call your doctor right away if you have 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.
- Low blood sugar has happened in people taking this drug, especially children. Signs may be dizziness, headache, feeling sleepy, feeling weak, shaking, a fast heartbeat, confusion, hunger, or sweating. Call your doctor right away if you have any of these signs.
- 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.
- A very bad and sometimes life-threatening problem called Macrophage Activation Syndrome (MAS) may rarely happen in people with autoimmune diseases. Talk with the doctor.

## **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:

- Feeling tired or weak.
- Diarrhea, throwing up, upset stomach, and decreased appetite are common with this drug. If these happen, talk with your doctor about ways to lower these side effects. Call your doctor right away if any of these effects bother you, do not get better, or are severe.

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.

### All products:

- Take with or without food but take the same way each time. Always take with food or always take on an empty stomach.
- Drink lots of noncaffeine liquids unless told to drink less liquid by your doctor.
- Your doctor will tell you how to take this drug. Be sure you know how much to take, how often to take this drug, and how to store this drug. If your doctor does not tell you how to use this drug or if you are not sure how to use it, talk with your doctor.
- You will need to take special care when handling this drug. Check with the doctor or pharmacist to see how to handle this drug.
- Do not get this drug on the skin, in the eyes, or on clothes. Remove clothes that have this drug on it. If this drug gets on the skin or in the eyes, rinse with water right away. If a rash, redness, itching, or swelling appears, call the doctor.

### Liquid (suspension):

- If the adapter has not been put in the bottle when you get it, follow how to prepare the bottle as you have been told or read the package insert.
- Shake well for at least 30 seconds before each use.
- Measure liquid doses carefully. Use the measuring device that comes with this drug.
- Clean the measuring device as you have been told. If you have questions

about cleaning the measuring device, read the package insert or talk with the doctor or pharmacist.

- Put the cap back on after you are done using your dose.
- This drug is pink to brown in color. This is normal.
- If this drug is spilled, you will need to clean it up in a special way. Check with the doctor or pharmacist if you are not sure how to clean it up.

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

- Skip the missed dose and go back to your normal time.
- Do not take 2 doses at the same time or extra doses.
- If you are not sure what to do if you miss a dose, call your doctor.

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

### **All products:**

- Store at room temperature in a dry place. Do not store in a bathroom.
- Keep lid tightly closed.
- 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.

### **Liquid (suspension):**

- Throw away any part not used 8 weeks after opening.

## **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 and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at <https://www.wolterskluwer.com/en/know/clinical-effectiveness-terms>.

## Last Reviewed Date

2025-07-07

# Copyright

© 2026 UpToDate, Inc. and its affiliates and/or licensors. All rights reserved.

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](http://www.mskcc.org/pe) to search our virtual library.

Mercaptopurine - Last updated on December 12, 2022

All rights owned and reserved by Memorial Sloan Kettering Cancer Center