

**PATIENT MEDICATION INFORMATION**  
**READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE**

**PrIMURAN®**

**Azathioprine Tablets USP**  
**(50 mg)**

**Azathioprine Sodium for Injection**  
**(50 mg azathioprine per vial)**

Read this carefully before you start taking IMURAN and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about IMURAN.

**Serious Warnings and Precautions**

- **may increase your risk of developing cancer, especially skin cancer and lymphoma**
- **can cause a severe decrease in the number of white blood cells and platelets thereby increasing your risk of having infection and unusual bleeding or bruising**
- **can cause harm to an unborn child when taken by a pregnant woman**
- **should be prescribed by doctors who are experienced in immunosuppressive therapy and management of organ transplant**

**What is IMURAN used for?**

IMURAN, is used in adults:

- along with other medications to prevent kidney rejection after a transplant.
- With Rheumatoid Arthritis who cannot be treated with other medications and treatments.

**How does IMURAN work?**

IMURAN belongs to a group of medicines called immunosuppressants. It reduces the strength of your immune system. This helps your body accept an organ after a transplant. It also helps to treat rheumatoid arthritis a condition where your immune system is reacting against your own body (autoimmune diseases).

**What are the ingredients in IMURAN?**

*IMURAN tablets*

Medicinal Ingredients: Azathioprine

Non-medicinal Ingredients: Lactose, magnesium stearate, microcrystalline cellulose and starch

*IMURAN for injection*

Medicinal Ingredients: Azathioprine (as azathioprine sodium)

Non-medicinal Ingredients: Sodium hydroxide (to adjust pH)

**IMURAN comes in the following dosage forms:**

Tablets: 50 mg

Powder for Solution: 50mg per vial

**Do not use IMURAN if:**

- You are allergic to azathioprine or to any of the other ingredients in IMURAN (see **“What are the ingredients in IMURAN”** above)

**To help avoid side effects and ensure proper use, talk to your healthcare professional before you take IMURAN. Talk about any health conditions or problems you may have, including if:**

- you have rheumatoid arthritis and have been previously treated with alkylating agents (such as cyclophosphamide, chlorambucil, melphalan or others)
- you suffer from liver or kidney disease
- you have been told you have any type of cancer
- you have a condition where your body produces too little of a natural chemical called thiopurine methyltransferase (TPMT)
- you have been told you have an inherited mutation in the NUDT15 gene
- you have never had chickenpox or shingles
- you have had chickenpox or hepatitis B (a liver disease caused by a virus) in the past
- you are going to have an operation. Medicines including tubocurarine, or succinylcholine that are used as muscle relaxants during surgery may interact with IMURAN). You should tell your doctor you are taking IMURAN before your surgery.
- you are pregnant. You should not take IMURAN while pregnant. It can cause harm to your unborn baby.
- you are planning to have a baby - discuss this with your doctor whether you are male or female
- you are breast feeding. The ingredient in IMURAN can be transferred through your breast milk.
- you are planning to get a vaccine. You should not receive live vaccines while taking IMURAN.
- you have had an allergic reaction to a medicine used to treat certain cancers called mercaptopurine.

### **Other warnings you should know about:**

**General:** If you are receiving immunosuppressive therapy, taking IMURAN could put you at a greater risk of developing certain types of cancers called lymphoproliferative disorders. These are cancers that affect the blood and immune system.

**Exposure to Sunlight:** Patients taking immunosuppressive medicines may have an increased risk for developing tumours, including skin cancer. While you are taking IMURAN, you should avoid too much exposure to sunlight. You should wear sunscreen with a high protection factor and wear protective clothing.

**Use with other immunosuppressant, particularly corticosteroids:** Patients taking IMURAN alone or in combination with other immunosuppressants, particularly corticosteroids are at a greater risk for infections.

**Chickenpox or shingles:** Infection with chickenpox or shingles can become severe in patients taking immunosuppressive medicines. You should therefore avoid contact with anyone who has chickenpox or shingles. Tell your doctor right away if you do come into contact with someone with chickenpox or shingles.

**Gastrointestinal hypersensitivity:** Severe nausea and vomiting have been reported in patients taking IMURAN.

### **Infections**

You are more likely to get a viral, fungal, or bacterial infection while you are taking IMURAN. If you do get an infection, it may become more severe. Talk to your doctor if you have questions about infections while taking or receiving IMURAN.

### **NUDT15 gene mutation**

Tell your doctor before you start taking IMURAN if you have an inherited mutation in the NUDT15 gene. The NUDT15 gene is involved in the break-down of azathioprine in the body, you have a higher risk of getting infections and hair loss if you have this mutation. Your doctor may need to give you a lower dose of IMURAN.

**Fertility:** It is not known if IMURAN affects fertility in humans. When tested in animals, IMURAN decreased fertility in animals that mated. It also decreased sperm viability and count in male animals. Talk to your doctor if you have questions about your fertility while taking or receiving IMURAN.

**Vaccines:** You should not receive live vaccines while taking or receiving IMURAN. They can cause you get an infection. You should wait at least 3 months after you stop taking IMURAN before getting a live vaccine. Talk to your doctor if you have questions about receiving vaccines while taking IMURAN.

**Itching during pregnancy:** You need to inform your doctor immediately if you experience intense, excessive itching, but without a rash during your pregnancy, especially in the second trimester. You may also experience nausea, and loss of appetite together with itching, which indicates that you have a condition called cholestasis of pregnancy (condition affecting the liver during pregnancy). Your doctor may order blood tests, while you are taking azathioprine and based on the results of these tests, your doctor may change your dose of azathioprine or stop it completely.

**Vitamin B3 Deficiency:** Tell your doctor immediately if you experience diarrhea, localized pigmented rash (dermatitis), and decline in your memory, reasoning or other thinking skills (dementia) as these symptoms may suggest vitamin B3 deficiency (nicotinic acid deficiency/pellagra). Your doctor will likely prescribe vitamin supplements (niacin/nicotinamide) to help you improve the condition.

**Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.**

**The following may interact with IMURAN:**

- angiotensin-converting enzyme inhibitors such as captopril (used to treat high blood pressure and heart failure)
- trimethoprim and sulfamethoxazole (used to treat bacterial infections). It is also known as SEPTRA®
- allopurinol, oxipurinol, thiopurinol (used to treat gout)
- curare, d-tubocurarine, tubocurarine, pancuronium and succinylcholine (used as a muscle relaxant during surgery)
- warfarin (used to prevent blood clots)
- mesalazine, olsalazine or sulphasalazine (used to treat ulcerative colitis)
- live vaccines
- infliximab (used to treat autoimmune disease)

**How to take IMURAN:**

*IMURAN tablets:*

**Important Information: The tablets require safe handling. Consult your doctor or pharmacist for instructions on how to safely handle this product.**

- It is important you take the tablets at right times.
- You must take it exactly the way your doctor has told you to
- Swallow the tablet **whole** with water. **Do NOT** break the tablet
- You may feel sick (have nausea) when you first start taking IMURAN. If this happens, your doctor may tell you to take the tablets after meals to relieve this.

### *IMURAN for injection:*

- The injection should be given to you in the hospital by your doctor
- It will be given through your vein as an infusion (intravenous infusion)
- The amount you will be given will depend on the condition the doctor is treating
- Your doctor will tell you how long your treatment will last

**Laboratory Tests:** From time to time, while you are taking IMURAN, your doctor will want you to have a blood test. This is to check your blood cell count and to change your dose if necessary.

### **Usual Adult dose:**

**Kidney Transplant:** A starting dose of up to 5 mg/kg of your bodyweight is usually given on the first day of therapy. You will then be given a maintenance dose of IMURAN. This is likely to be between 1 to 3 mg/kg bodyweight per day.

**Rheumatoid Arthritis:** If you are receiving IMURAN for rheumatoid arthritis the dose given is likely to start at approximately 1 mg/kg of your bodyweight. Depending on how your treatment is working, your dose may be adjusted, until an optimal maintenance dose is determined.

### **Overdose:**

If you think you have taken too much IMURAN, contact your healthcare professional, hospital emergency department or regional Poison Control Centre immediately, even if there are no symptoms.

### **Missed Dose:**

If you forget to take a dose, do not take extra tablets to make up for the dose or doses you have missed. When you remember take your next dose at the usual time and continue as before. Talk to your doctor as soon as you can about the doses you may have missed.

### **What are possible side effects from using IMURAN:**

These are not all the possible side effects you may feel when taking IMURAN. If you experience any side effects not listed here, contact your healthcare professional.

Side effects include:

- Tender red bumps on your shins
- hair loss. Often hair does grow again, even if you carry on taking IMURAN. If you are worried ask your doctor.

**SERIOUS SIDE EFFECTS, HOW OFTEN THEY HAPPEN AND WHAT TO DO ABOUT THEM**

Symptom / effect	Talk with your doctor or pharmacist		Stop taking drug and call your doctor or pharmacist
	Only if severe	In all cases	
<b>Common</b>			
fever or infection after transplant		✓	
unexpected bruising or bleeding		✓	
nausea		✓	
<b>Rare</b>			
new marks on skin or a change to marks		✓	
cough or difficulty breathing similar to a chest infection		✓	
tired, dizzy or generally unwell		✓	
muscle or bone pain			✓
kidney problems			✓
feeling faint especially on standing up			✓
bad diarrhoea and/or abdominal pain			✓
any signs of fever and infection (sore throat and sore mouth)			✓
<b>Urinary tract infection</b> (infection in urinary system including kidneys, ureters, bladder, and urethra): Pain or burning sensation while urinating, frequent urination, blood in urine, pain in the pelvis, strong smelling urine, cloudy urine.			✓

**SERIOUS SIDE EFFECTS, HOW OFTEN THEY HAPPEN AND WHAT TO DO ABOUT THEM**

Symptom / effect	Talk with your doctor or pharmacist		Stop taking drug and call your doctor or pharmacist
	Only if severe	In all cases	
<p><b>Serious Skin Reaction:</b></p> <p>Stevens-Johnson syndrome (SJS): flu-like symptoms, skin rash often with blister or lesions and shedding of the skin within days of the formation of the blisters</p> <p>Toxic epidermal necrolysis (TEN): flu-like symptoms, redness of the skin, detachment of the skin (epidermal layer)</p> <p>Acute febrile neutrophilic dermatosis also known as Sweet’s Syndrome (a serious inflammatory skin condition): fever, painful dark red bumps or small blisters on the face, neck, arms, legs or hands, skin and mouth lesions, skin discoloration, skin swelling, muscle or joint pain, fatigue.</p>			✓
Hepatosplenic T-cell lymphoma (enlargement of the liver)			✓

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, talk to your healthcare professional.

## REPORTING SUSPECTED SIDE EFFECTS

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (<https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada/adverse-reaction-reporting.html>) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

NOTE: Contact your health professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.

### Storage:

#### *IMURAN Tablets:*

- Store between 15°C and 30°C. Protect from light.
- Do not take the medicine after the expiry date shown on the package.
- If your doctor tells you to stop taking the tablets, return any left-over tablets to your pharmacy for proper disposal. Only keep them if your doctor tells you to.

#### *IMURAN for Injection:*

- Store between 15°C and 25°C. Protect from light.

Keep out of reach and sight of children.

### **If you want more information about IMURAN:**

- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website (<https://health-products.canada.ca/dpd-bdpp/index-eng.jsp>); the manufacturer's website [www.aspenpharma.ca](http://www.aspenpharma.ca), or by calling 1-844-330-1213.

This leaflet was prepared by Aspen Pharmacare Canada Inc.

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