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# Imatinib

**Generic name:** imatinib [ *im-MA-ta-nib* ]

**Brand names:** [Gleevec](#), [Imkeldi](#)

**Dosage form:** oral tablet (100 mg; 400 mg), oral solution (80 mg/mL)

**Drug class:** [BCR-ABL tyrosine kinase inhibitors](#)

Medically reviewed by [Carmen Pope, BPharm](#). Last updated on Dec 11, 2024.

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## What is imatinib?

[Imatinib](#) (brand names [Gleevec](#) [oral tablet], [Imkeldi](#) [oral solution]) is used to treat certain types of [leukemia](#) (blood cancer), bone marrow disorders, and [skin cancer](#).

Imatinib is also used to treat certain tumors of the stomach and digestive system.

Imatinib's mechanism of action involves targeting BCR-ABL tyrosine kinase and some other kinases, particularly ones responsible for uncontrolled cell growth. By preventing these enzymes from working properly, imatinib slows cancer growth and spread. Imatinib belongs to the drug class called BCR-ABL tyrosine kinase inhibitors.

Imatinib gained FDA approval on May 10, 2001, under the brand name Gleevec. A generic Gleevec is available known as imatinib mesylate. Imatinib is also available under the brand name Imkeldi which is an oral solution. There is no Imkeldi generic.

## Warnings

Imatinib can lower blood cells that help your body fight infections and help your blood to clot. You may get an infection or bleed more easily. Call your doctor if you have unusual bruising or bleeding, or signs of infection (fever, chills, body aches).

Imatinib may increase the risk of liver problems. Tell your doctor if you have upper stomach pain, loss of appetite, dark urine, clay-colored stools, or jaundice (yellowing of the skin or eyes).

Imatinib may increase the risk of fluid retention or heart problems. Tell your doctor if you have swelling or rapid weight gain, shortness of breath, fast or slow heart rate, weak pulse, or fainting.

## Before taking this medicine

You should not use imatinib if you are allergic to it.

To make sure imatinib is safe for you, tell your doctor if you have ever had:

- liver disease (especially hepatitis B);
- kidney disease;
- [underactive thyroid](#), recent or upcoming thyroid surgery;
- heart disease, [high blood pressure](#), congestive [heart failure](#);
- a [stomach ulcer](#) or bleeding;
- diabetes; or
- chemotherapy.

You may need to have a negative pregnancy test before starting this treatment.

**Do not use imatinib if you are pregnant.** It could harm the unborn baby or cause birth defects. Use effective birth control to prevent pregnancy while you are using imatinib and for at least 14 days after your last dose.

**Do not breastfeed a baby** while you are using this medicine and for at least 1 month after your last dose.

 [Imatinib pregnancy and breastfeeding warnings](#) (more detail)

## How should I take imatinib?

Take imatinib exactly as prescribed by your doctor. Follow all directions on your prescription label and read all medication guides or instruction sheets.

### Imatinib tablets

Take imatinib with a meal and a large glass of water. **Do not take imatinib on an empty stomach.**

If you cannot swallow a tablet whole, you may dissolve it in a glass of water or apple juice to make the pill easier to swallow. Use about 2 ounces of liquid for each 100-milligram tablet, or 7 ounces of liquid for each 400-milligram tablet. Stir the mixture and drink all of it right away.

Do not use a broken tablet. **The medicine from a broken pill can be dangerous if it gets in your mouth, eyes, or nose, or on your skin.** If this happens, wash your skin with soap and water or rinse your eyes with water. Ask your pharmacist how to safely dispose of a broken pill.

### Imatinib oral solution (Imkeldi)

You **must measure Imkeldi with an accurate milliliter measuring device.**

- A household teaspoon is **not** an accurate measuring device and could lead to overdosage, which can result in serious adverse reactions.
- Ask your pharmacist to recommend an appropriate press-in bottle adapter and oral dispensing syringe and for instructions for measuring the correct dose (an oral dispensing syringe is not included with Imkeldi).
- Wear disposable gloves while preparing, withdrawing, taking, or giving Imkeldi to avoid direct contact with the medicine.
- See the [Imkeldi Package Insert](#) for detailed Instructions for Use.

The dose of Imkeldi should be taken with a meal and a large glass of water. **Do not take Imkeldi on an empty stomach.**

## General information

Imatinib can lower blood cells that help your body fight infections and help your blood to clot. Your blood will need to be tested often. Your cancer treatments may be delayed based on the results of these tests.

You will also need frequent tests to check your liver function.

**Do not stop using imatinib without your doctor's advice.**

Store at room temperature away from moisture and heat.

## Imatinib dosing information

### Usual Adult Dose of Imatinib for Chronic Myelogenous Leukemia:

Chronic phase: 400 mg orally once a day

Accelerated phase or blast crisis: 600 mg orally once a day

A dose increase may be considered in the absence of a severe adverse drug reaction and severe non-leukemia related neutropenia or thrombocytopenia in the following circumstances: disease progression (at any time), failure to achieve a satisfactory hematologic response after at least 3 months of treatment, failure to achieve a cytogenetic response after 6 to 12 months of treatment, or loss of a previously achieved hematologic or cytogenetic response:

-Disease progression chronic phase: 600 mg orally once a day

-Disease progression accelerated phase or blast crisis: 400 mg orally 2 times a day

Uses:

-Newly diagnosed patients with Philadelphia chromosome-positive chronic myeloid leukemia (Ph+CML) in chronic phase

-Patients with Philadelphia chromosome-positive chronic myeloid leukemia (Ph+CML) in blast crisis (BC), accelerated phase (AP), or in chronic phase (CP) after the failure of interferon-alpha therapy

### Usual Adult Dose of Imatinib for Acute Lymphoblastic Leukemia:

600 mg orally daily

Use: For relapsed or refractory Philadelphia chromosome-positive acute lymphoblastic leukemia (Ph+ ALL)

### Usual Adult Dose of Imatinib for Myeloproliferative Disorder:

400 mg orally once a day

Comments:

-Determine PDGFRb gene rearrangement status before initiating therapy.

Use: For patients with myelodysplastic/myeloproliferative (MDS/MPD) diseases associated with PDGFR (platelet-derived growth factor receptor) gene rearrangements

### Usual Adult Dose of Imatinib for Myelodysplastic Disease:

400 mg orally once a day

Comments:

-Determine PDGFRb gene rearrangement status before initiating therapy.

Use: For patients with myelodysplastic/myeloproliferative (MDS/MPD) diseases associated with PDGFR (platelet-derived growth factor receptor) gene rearrangements

**Usual Adult Dose of Imatinib for Systemic Mastocytosis:**

-For patients with ASM without the D816V c-Kit mutation: 400 mg orally daily

-If c-Kit mutational status is not known or unavailable: 400 mg orally daily may be considered for patients with ASM not responding satisfactorily to other therapies.

-For patients with ASM associated with eosinophilia, a clonal hematological disease related to the fusion kinase FIP1L1-PDGFR alpha, a starting dose of 100 mg/day is recommended. A dose increase from 100 mg to 400 mg for these patients may be considered in the absence of adverse drug reactions if assessments demonstrate an insufficient response to therapy.

-For patients with ASM associated with eosinophilia (a clonal hematological disease related to the fusion kinase FIP1L1-PDGFR alpha: 100 mg orally daily; a dose increase from 100 mg to 400 mg for these patients may be considered in the absence of adverse drug reactions if assessments demonstrate an insufficient response to therapy

Comments:

-Determine D816V c-Kit mutation status prior to initiating treatment.

Use: For patients with aggressive systemic mastocytosis without the D816V c-Kit mutation

**Usual Adult Dose of Imatinib for Hypereosinophilic Syndrome:**

-For patients with HES/CEL: 400 mg orally daily

-For patients with HES/CEL with demonstrated FIP1L1-PDGFR alpha fusion kinase: 100 mg orally daily; dose increase from 100 mg to 400 mg for these patients may be considered in the absence of adverse drug reactions if assessments demonstrate an insufficient response to therapy

Use: For patients with hypereosinophilic syndrome and/or chronic eosinophilic leukemia who have the FIP1L1-PDGFR alpha fusion kinase (mutational analysis or FISH demonstration of CHIC2 allele deletion) and for patients with HES and/or CEL who are FIP1L1-PDGFR alpha fusion kinase negative or unknown

**Usual Adult Dose of Imatinib for Chronic Eosinophilic Leukemia:**

-For patients with HES/CEL: 400 mg orally daily

-For patients with HES/CEL with demonstrated FIP1L1-PDGFR alpha fusion kinase: 100 mg orally daily; dose increase from 100 mg to 400 mg for these patients may be considered in the absence of adverse drug reactions if assessments demonstrate an insufficient response to therapy

Use: For patients with hypereosinophilic syndrome and/or chronic eosinophilic leukemia who have the FIP1L1-PDGFR alpha fusion kinase (mutational analysis or FISH demonstration of CHIC2 allele deletion) and for patients with HES and/or CEL who are FIP1L1-PDGFR alpha fusion kinase negative or unknown

**Usual Adult Dose of Imatinib for Dermatofibrosarcoma Protuberans:**

100 mg orally daily

Use: For patients with unresectable, recurrent and/or metastatic dermatofibrosarcoma protuberans (DFSP)

### Usual Pediatric Dose of Imatinib for Chronic Myelogenous Leukemia:

1 year and older:

340 mg/m<sup>2</sup> orally once a day or 170 mg/m<sup>2</sup> orally 2 times a day

Maximum Dose: 600 mg daily

Comments:

-Therapy can be given as a once-daily dose or the daily dose may be split into 2 doses, with one portion dosed in the morning and one portion in the evening.

-There is no experience with this drug in children under 1 year of age.

Use:

-Newly diagnosed patients with Philadelphia chromosome-positive chronic myeloid leukemia (Ph+CML) in chronic phase.

 [Detailed Imatinib dosage information](#)

## What happens if I miss a dose?

Take your dose as soon as you can, making sure you also eat a meal and drink a large glass of water. Skip the missed dose if it is almost time for your next dose. Do not take two doses at one time.

## What happens if I overdose?

Seek emergency medical attention or call the Poison Help line at 1-800-222-1222.

## What should I avoid while taking imatinib?

Imatinib may cause blurred vision and may impair your reactions. Avoid driving or hazardous activity until you know how this medicine will affect you. [Dizziness](#) or severe drowsiness can cause falls, accidents, or severe injuries.

Grapefruit may interact with imatinib and lead to unwanted side effects. Avoid the use of grapefruit products.

Avoid being near people who are sick or have infections. Tell your doctor at once if you develop signs of infection.

Avoid activities that may increase your risk of bleeding or injury. Use extra care to prevent bleeding while shaving or brushing your teeth.

Do not crush Gleevec tablets. If a tablet accidentally gets crushed, avoid direct contact of crushed tablets with the skin or mucous membranes. If such contact occurs, wash thoroughly as outlined in the references.

## Imatinib side effects

Get emergency medical help if you have **signs of an allergic reaction to imatinib** ([hives](#), difficulty breathing, swelling in your face or throat) **or a severe skin reaction** (fever, [sore throat](#), burning in your eyes, skin pain, red or purple [skin rash](#) that spreads and causes blistering and peeling).

Call your doctor at once if you have:

- **fluid retention** - shortness of breath (even while lying down), swelling, rapid weight gain;
- **kidney problems** - little or no urination, swelling in your feet or ankles;
- **fluid build-up in the lungs** - pain when you breathe, wheezing, gasping for breath, cough with foamy mucus;
- **liver problems** - upper stomach pain, loss of appetite, dark urine, [jaundice](#) (yellowing of the skin or eyes);
- **low blood cell counts** - fever, cold or flu symptoms, easy bruising, unusual bleeding, mouth sores, pale skin, unusual tiredness, feeling light-headed, cold hands and feet;
- **signs of stomach bleeding** - bloody or tarry stools, coughing up blood or vomit that looks like coffee grounds;
- **signs of tumor cell breakdown** - confusion, weakness, muscle cramps, [nausea](#), [vomiting](#), fast or [slow heart rate](#), decreased urination, tingling in your hands and feet or around your mouth; or
- **thyroid symptoms** - tiredness, [dry skin](#), [hair loss](#), [constipation](#), [depression](#), slow heart rate, weight gain, feeling more sensitive to cold temperatures.

Imatinib can affect growth in children and teenagers. Tell your doctor if your child is not growing at a normal rate while using this medicine.

Common imatinib side effects may include:

- fluid retention;
- nausea, vomiting, stomach pain, [diarrhea](#);
- joint or muscle pain;
- skin rash; or
- feeling tired.

This is not a complete list of side effects and others may occur. Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

 [Imatinib side effects](#) (more detail)

## Related/similar drugs

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Prilosec (omeprazole) is used to treat symptoms of GERD and other conditions caused by excess ...

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6.9 / 10

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Lansoprazole is used to treat stomach and intestinal ulcers, erosive esophagitis and ...

### Reviews & ratings

6.6 / 10

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## What other drugs will affect imatinib?

Sometimes it is not safe to use certain medications at the same time. Some drugs can affect your blood levels of other drugs you take, which may increase side effects or make the medications less effective.

Tell your doctor about all your current medicines. Many drugs can interact with imatinib, especially:

- an [antibiotic](#), antifungal, or antiviral medicine;
- seizure medicine;
- a blood thinner such as [warfarin](#) ([Coumadin](#), [Jantoven](#)); or
- a vitamin or mineral supplement that contains iron.

This list is not complete and many other drugs may affect imatinib. This includes prescription and over-the-counter medicines, [vitamins](#), and [herbal products](#). Not all possible drug interactions are listed here.

 [Imatinib drug interactions](#) (more detail)

## Does imatinib interact with my other drugs?

Enter medications to view a detailed interaction report using our [Drug Interaction Checker](#).

+

**Add**

## Imatinib ingredients



## Gleevec ingredients

Active ingredient: imatinib mesylate

Inactive Ingredients: colloidal silicon dioxide; croscopovidone; hydroxypropyl methylcellulose; magnesium stearate; and microcrystalline cellulose.

Tablet coating: ferric oxide, red; ferric oxide, yellow; hydroxypropyl methylcellulose; polyethylene glycol, and talc.

Available as Gleevec 100 mg (119.5 mg of imatinib mesylate equivalent to 100 mg of imatinib free base) and Gleevec 400 mg (478 mg of imatinib mesylate equivalent to 400 mg of imatinib free base).

## Imkeldi ingredients

Active: 80 mg imatinib present as 95.57 mg imatinib mesylate

Inactive Ingredients: acesulfame potassium, citric acid monohydrate, glycerine, liquid maltitol, purified water, sodium benzoate, strawberry flavor (artificial flavors, lactic acid, triacetin).

Imkeldi oral solution 80 mg/mL is supplied as 140 mL of clear yellow to brownish-yellow colored solution with a strawberry flavor in an amber PET bottle with a child-resistant tamper-evident closure.

## Storage

### Gleevec

Store at room temperature between 68°F to 77°F (20°C to 25°C) away from moisture and heat.

### Imkeldi

Store at room temperature between 68°F to 77°F (20°C to 25°C) away from moisture and heat.

Imkeldi comes in a child-resistant tamper-evident bottle. Store and give in original bottle only.

Any opened Imkeldi bottle should be thrown away (discarded) 30 days after first opening.

Talk to your healthcare provider or pharmacist about the best way to throw away any unused Imkeldi. Follow all special handling and throw-away (disposal) procedures provided by your healthcare provider and pharmacist.

Keep out of the reach of children.

## Who makes imatinib?

Novartis Pharmaceuticals makes imatinib oral tablets under the brand name Gleevec.

Shorla Oncology Inc. manufactures imatinib oral solution under the brand name Imkeldi.

## Popular FAQ

What to avoid when taking Gleevec?



Gleevec vs Sprycel vs Tasigna - how do they compare?



Is there a generic for Gleevec?



How does Gleevec (imatinib) work?



Can I take Gleevec while pregnant?



[View more FAQ...](#)

## References

1. [Imkeldi Package Insert](#)
2. [Gleevec Package Insert](#)

## More about imatinib

- [Check interactions](#)
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- [During pregnancy](#)
- [Drug class: BCR-ABL tyrosine kinase inhibitors](#)
- [Breastfeeding](#)
- [En español](#)

## Patient resources

### Other brands

[Gleevec](#), [Imkeldi](#)

## Professional resources

- [Imatinib monograph](#)
- [Imatinib \(FDA\)](#)

### Other brands

[Gleevec](#), [Imkeldi](#)

## Related treatment guides

- [Chronic Myelogenous Leukemia](#)
- [Acute Lymphoblastic Leukemia](#)
- [Chronic Eosinophilic Leukemia](#)
- [Dermatofibrosarcoma Protuberans](#)

## Further information

Always consult your healthcare provider to ensure the information displayed on this page applies to your personal circumstances.

[Medical Disclaimer](#)

### DRUG STATUS

#### Availability

**Rx** Prescription only

#### [Pregnancy & Lactation](#)


 Risk data available

#### CSA Schedule\*

**N/A** Not a controlled drug



#### Approval History

 Drug history at FDA



## User Reviews & Ratings

8.8 / 10

[47 Reviews](#)

## Images

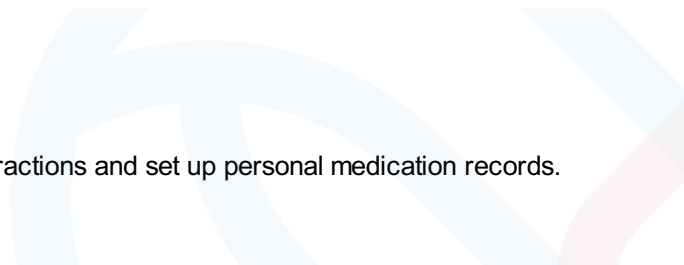
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