

ORAL CHEMOTHERAPY EDUCATION



IMATINIB

Name of your medication

Generic name — imatinib (ih-MA-tih-nib)

Brand name — Gleevec® (GLEE-vek)

Approved uses

Imatinib is used to treat adult and pediatric patients with chronic myeloid leukemia (CML) that is Philadelphia chromosome-positive (Ph+) and acute lymphoblastic leukemia (ALL) that is Ph+. Other approved uses in adults include the following:

- Gastrointestinal stromal tumors (GISTs) that are Kit (CD117) positive
- Myelodysplastic/myeloproliferative diseases (MDS/MPD) with platelet-derived growth factor receptor (PDGFR) gene rearrangements
- Aggressive systemic mastocytosis (ASM) without the D816V c-Kit mutation
- Hypereosinophilic syndrome and/or chronic eosinophilic leukemia (CEL)
- Dermatofibrosarcoma protuberans (DFSP)

Dose and schedule

Taking imatinib as instructed is important to allow your treatment to be as effective as possible, so here are some key points to remember.

- Your dose may vary, but the usual dose of imatinib is 100 milligrams (100 mg) to 600 milligrams (600 mg) to be taken by mouth at a scheduled time once a day.
- Imatinib should be taken with food at the same time each day.
- Imatinib should be taken whole and not crushed, cut, or dissolved. If you are unable to swallow imatinib, talk to your care provider or pharmacist for possible options.
- If you miss a dose of imatinib, **do not** take an extra dose or two doses at one time. Simply take your next dose at the regularly scheduled time.
- Be sure to write down if you miss a dose, and let your care provider know about any missed doses.

Drug and food interactions

- Imatinib has many drug interactions. Inform your care providers of all prescription medications, over-the-counter medications, vitamins, and herbal products that you are taking.
- Grapefruit or grapefruit juice may interact with imatinib; avoid eating or drinking these during your treatment with imatinib.
- Talk with your care provider or pharmacist before taking new medications or supplements, or receiving any vaccines.

Storage and handling

Handle imatinib with care. Just like when chemotherapy is given into the vein, this drug can be toxic, and exposure of the drug to others should be limited.

- Store imatinib at room temperature (68°F–77°F) in a dry location away from light.
- Keep imatinib out of reach of children and pets.
- Leave imatinib in the provided packaging until it is ready to be taken.

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- Whenever possible, give imatinib to yourself and follow the steps below. If a family member, friend, or caregiver needs to give imatinib to you, they may also need to follow these steps:
 1. Wash hands with soap and water.
 2. Put on gloves to avoid touching the medication. (Gloves are not necessary if you give the drug to yourself.)
 3. Gently transfer the imatinib from its package to a small medicine or other disposable cup.
 4. Administer the medicine immediately by mouth with water.
 5. Remove gloves and do not use them for anything else.
 6. Throw gloves and medicine cup in household trash.
 7. Wash hands with soap and water.
- A daily pill box or pill reminder is **not** recommended for use with imatinib.
- If you have any unused imatinib, **do not** throw it in the trash and **do not** flush it down the sink or toilet. Talk to your care provider or pharmacist about proper disposal of imatinib.
- If you are traveling, put your imatinib's packaging in a sealed plastic bag. Ask your pharmacist if any additional travel precautions are needed.

Side Effects of Imatinib

Below are common side effects that have been known to happen in about one third or more of patients taking imatinib are listed on the left side of this table. You **MAY NOT** experience these side effects. Options to help manage any side effects that do occur are included on the right side of this table. These should be discussed with your care provider. If you experience any side effect you cannot manage or that is not listed here, contact your care provider.

Possible Side Effect	Management
<p>Decreased white blood cells (WBCs) and increased risk for infection</p>	<p>Your WBCs should be monitored by a simple blood test. When your WBCs are low, you are at a greater risk of having an infection. Take the following precautions to protect yourself from infection.</p> <ul style="list-style-type: none"> • Wash your hands often, especially before eating and after using the bathroom. • Avoid crowds and people with fevers, flu, or other infection. • Bathe regularly to keep good personal hygiene. <p>Contact your care provider if you experience any signs or symptoms of an infection such as:</p> <ul style="list-style-type: none"> • Fever (temperature more than 100.4°F or 38°C) • Chills • Sore throat • Burning with urination • Unusual tiredness • A sore that becomes red, is draining, or does not heal <p>Check with your care provider before taking any medicine for a fever or chills.</p>

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Possible Side Effect	Management
<p>Decreased platelet count and increased risk of bleeding</p>	<p>Your platelets should be monitored by a simple blood test. When they are low, you may bruise or bleed more easily than usual.</p> <ul style="list-style-type: none"> • Use caution to avoid bruises, cuts, or burns. • Blow your nose gently, and do not pick your nose. • Brush your teeth gently with a soft toothbrush, and maintain good oral hygiene. • When shaving, use an electronic razor instead of razor blades. • Use a nail file instead of nail clippers. <p>Call your care provider if you have bleeding that won't stop. Examples include:</p> <ul style="list-style-type: none"> • A bloody nose that bleeds for more than 5 minutes despite pressure • A cut that continues to ooze despite pressure • Gums that bleed excessively when you floss or brush <p>Seek medical help immediately if you experience any severe headaches, observe blood in your urine or stool, cough up blood, or experience prolonged and uncontrollable bleeding.</p> <p>You may need to take a break or hold your medication for medical or dental procedures. Talk to your care provider or dentist before any scheduled procedures.</p>
<p>Decreased hemoglobin, part of the red blood cells that carry iron and oxygen</p>	<p>Your hemoglobin should be monitored by a simple blood test. When your hemoglobin is low, you may notice that you get tired or fatigued more easily.</p> <ul style="list-style-type: none"> • Try to get 7–8 hours of sleep per night. • Avoid operating heavy machinery if you feel too tired. • Find a balance between work and rest. • Stay as active as possible, but know that it is okay to rest as needed. • You might notice that you are more pale than usual. <p>Let your care provider know right away if you experience any of the following:</p> <ul style="list-style-type: none"> • Shortness of breath • Dizziness • Palpitations
<p>Fluid retention or swelling</p>	<ul style="list-style-type: none"> • Do not stand for long periods of time. • Keep your legs elevated when sitting or lying down. • Avoid eating salty foods, which can increase swelling. • Avoid wearing tight-fitting clothing and shoes. • Weigh yourself daily. <p>Contact your care provider if you notice:</p> <ul style="list-style-type: none"> • Swelling in the hands, feet, or legs • Shortness of breath • Weight gain of 5 pounds or more in a week

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Possible Side Effect	Management
Nausea or vomiting	<ul style="list-style-type: none"> • Eat and drink slowly. • Drink 8–10 glasses of water or fluid each day unless your care provider has instructed you to limit your fluid intake. • Eat small, frequent meals throughout the day rather than a few large meals. • Eat bland foods; avoid spicy, fried, and greasy foods. • Avoid vigorous exercise immediately after eating. • Don't lie down immediately after eating. • Avoid strong odors. <p>Let your provider know if you experience nausea or vomiting. Your provider may prescribe medication to help with the nausea or vomiting.</p>
Muscle or joint pain or weakness	<ul style="list-style-type: none"> • Keep a diary of your pain, including a description of when and where the pain is occurring, what it feels like, and how long it lasts. • Stay as active as possible, but know that it is okay to rest as needed. • Tell your care provider if pain interferes with your activity. <p>If the pain or weakness bothers you, ask your provider how you may ease this discomfort. Take only pain medication that has been prescribed or recommended by your care provider.</p>
Diarrhea (loose and/or urgent bowel movements)	<p>Monitor how many bowel movements you have each day.</p> <ul style="list-style-type: none"> • Drink 8–10 glasses of water or fluid each day unless your care provider has instructed you to limit your fluid intake. • Eat small, frequent meals throughout the day rather than a few large meals. • Eat bland, low-fiber foods, such as bananas, applesauce, potatoes, chicken, rice, and toast. • Avoid high-fiber foods, such as raw vegetables, raw fruits, and whole grains. • Avoid foods that cause gas, such as broccoli and beans. • Avoid lactose-containing foods, such as yogurt and milk. • Avoid spicy, fried, and greasy foods. <p>Contact your provider if any of the following occur:</p> <ul style="list-style-type: none"> • The number of bowel movements you have in a day increases by four or more. • You feel dizzy or lightheaded. <p>Your care provider may recommend an over-the-counter medication called loperamide (Imodium®) to help with diarrhea, but talk to your care provider before starting this medication.</p>
Changes in liver function	<p>Your liver function should be checked periodically by a simple blood test. Contact your care provider if you notice any of the following:</p> <ul style="list-style-type: none"> • Yellowing of the skin or whites of your eyes • Dark or brown urine • Bleeding or bruising

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Possible Side Effect	Management
Fatigue	<p>You may be more tired than usual or have less energy.</p> <ul style="list-style-type: none"> Stay as active as possible, but know it is okay to rest as needed. Try to do some activity every day. Plan your activities, and do them at a time of day when you feel a bit more energetic. Avoid operating heavy machinery if you feel too tired.
Rash or itchy skin	<ul style="list-style-type: none"> Keep your skin moisturized with creams and moisturizing lotions to decrease the risk of rash or itchiness, and wear loose-fitting clothing. Avoid using perfumes and cologne as these products may increase rash symptoms. Avoid being in the heat for long periods of time. Your provider may recommend an over-the-counter antihistamine or a topical cream. <p>Sunlight can make symptoms worse.</p> <ul style="list-style-type: none"> Avoid sun exposure as much as possible to decrease the risk of sunburn. The highest exposure to UV (ultraviolet) radiation occurs from 10 am–4 pm. Wear long-sleeved clothing, with UV protection if possible. Wear broad-brimmed hats. Apply broad-spectrum sunscreen (UVA/UVB) with at least SPF 30 as often as directed. Use lip balm with at least SPF 30. <p>If your rash or itching continues to worsen, contact your care provider.</p>
Headache	<p>Ask your provider what you may use to help with this discomfort. Contact your care provider right away if your headache:</p> <ul style="list-style-type: none"> Follows a head injury Is severe or starts suddenly Does not go away after 3 days Is associated with vomiting, visual disturbance, neck stiffness, drowsiness, confusion, rash, weakness in an arm or leg, or numbness; or is made worse by coughing or lowering the head.
Abdominal pain	<p>Abdominal pain or discomfort may occur. Report any serious pain or symptoms to your care provider immediately. If these side effects occur with nausea and vomiting, you might have inflammation of the pancreas (pancreatitis).</p>
Changes in electrolytes and other laboratory values <ul style="list-style-type: none"> Low potassium 	<p>Changes in some laboratory values may occur and should be monitored by a simple blood test.</p> <ul style="list-style-type: none"> You may not feel any symptoms if the changes are mild, and they usually are not a sign of a serious problem. More severe changes may occur, which can be a sign of a serious problem. <p>Notify your care provider if you have any of the following:</p> <ul style="list-style-type: none"> Shortness of breath Chest discomfort Weakness or fatigue New aches and pains Headaches Dizziness

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Serious side effects of imatinib

- Tell your doctor if you notice swelling in your hands, feet, or legs.
- Imatinib can cause heart failure. Report symptoms related to swelling and shortness of breath to your healthcare provider.
- Imatinib may be harmful to your liver. Speak to your care provider to know when you need to have laboratory tests done to monitor your liver function. If you get this side effect, your doctor may change your dose or stop treatment for some time.
- You may be at a higher risk of bleeding while taking Imatinib. Be sure to seek medical attention right away if you have any major bleeding. Also be sure to check for any signs of bleeding in your stool.
- Imatinib may be harmful to your thyroid. Speak to your care provider to know when you need to have laboratory tests done to monitor your thyroid function. Your doctor may prescribe medication to keep your thyroid functioning properly.

If you experience ANY uncontrolled side effect, call your physician or healthcare center immediately:

(INSTITUTIONAL CONTACT INFO)

Handling body fluids and waste

Since imatinib remains in your body for several days after it is taken, some of the drug may be present in urine, stool, sweat, or vomit. Once you have started to take imatinib, it is important to follow the instructions below every day for as long as your treatment lasts. This will keep yourself, loved ones, and the environment as safe as possible.

- Pregnant women should avoid touching anything that may be soiled with body fluids from the patient.
- Toilet and septic systems
 - You may use the same toilet, septic tank, and/or sewer that you usually use. If you have a low-flow toilet, close the lid and flush twice to ensure all waste has been discarded.
 - If the toilet or toilet seat becomes soiled with urine, stool, or vomit, clean the surfaces before other people use the toilet.
 - Wash hands with soap and water after using the toilet.
- If you need a bedpan, be sure your caregiver knows to wear gloves to assist with cleanup and to wash the bedpan with soap and water every day.
- If you do not have good control of bladder or bowels, use a disposable pad with a plastic back, a diaper, or a sheet to absorb body waste.
- Wash any skin that has been exposed to body waste or imatinib with soap and water.
- Linens or clothing that are soiled with body fluids or body waste should be washed separately from other linens and clothing. If you do not have a washer, place the soiled linens in a plastic bag until they can be washed.
- Wash hands with soap and water after touching linens or clothing that may be soiled with body fluids.

Pregnancy, sexual activity, and contraception

- Women should not become pregnant and men should not get a partner pregnant while taking imatinib. Men and women of childbearing potential should use effective contraception during therapy and for a minimum of 14 days after the last dose of imatinib.

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- Effective contraception could include one or more of the following: oral contraceptive, barrier methods, etc.
- Do not breastfeed while taking imatinib and for one month after the last dose of imatinib.
- Inform your care provider if you become pregnant.
- It is safe to hug and kiss. Special precautions may be needed for sexual activity while on imatinib, and you are encouraged to ask your care provider.

Obtaining medication

Talk with your care provider about the process for obtaining your imatinib.

_____ (PHARMACY OR SPECIALTY PHARMACY CONTACT INFO)

Additional resources

Product website: www.gleevec.com/index.jsp

Product prescribing information: www.pharma.us.novartis.com/sites/www.pharma.us.novartis.com/files/gleevec_tabs.pdf

Product resources: www.gleevec.com/patient/patient-resource-support.jsp

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Additional instructions

Important notice: The Association of Community Cancer Centers (ACCC), Hematology/Oncology Pharmacy Association (HOPA), National Community Oncology Dispensing Association, Inc. (NCODA), and Oncology Nursing Society (ONS) have collaborated in gathering information for and developing this patient education guide. This guide represents a brief summary of the medication derived from information provided by the drug manufacturer and other resources. This guide does not cover all existing information related to the possible uses, directions, doses, precautions, warnings, interactions, adverse effects, or risks associated with this medication and should not substitute for the advice of a qualified healthcare professional. Provision of this guide is for informational purposes only and does not constitute or imply endorsement, recommendation, or favoring of this medication by ACCC, HOPA, NCODA, or ONS, who assume no liability for and cannot ensure the accuracy of the information presented. The collaborators are not making any representations with respect to the medications whatsoever, and any and all decisions, with respect to such medications, are at the sole risk of the individual consuming the medication. All decisions related to taking this medication should be made with the guidance and under the direction of a qualified healthcare professional.

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