

Warfarin

Coumadin® and Jantoven®

Warfarin is an anticoagulant medicine, also known as a blood thinner.

You take this medicine by mouth as a tablet or by a feeding tube. This medicine is given to:

- Slow the clotting ability of your blood
- Treat any current blood clots
- Prevent blood clots from forming

Cancer patients are often prescribed blood thinning medicines as part of their treatment plan. Patients with atrial fibrillation/flutter (an irregular or very rapid heartbeat) may need to take anticoagulants to prevent a stroke. Patients with certain mechanical heart valves may need these medicines to prevent blood clots on the valve. Anticoagulants are given in lower doses to patients with certain high-risk cancers and after major surgery to prevent blood clots from forming.

Precautions



Before you take this medicine, tell your doctor if:

- You are pregnant, think you are pregnant, plan to become pregnant or are breastfeeding
- You are allergic to warfarin products or experienced adverse reaction to warfarin
- You have a personal or family history of bleeding problems such as hemophilia
- You drink alcohol or have problems with alcohol use
- You have problems with falling often
- You have a history of stroke, high blood pressure or blood vessel problems
- You have a stomach ulcer, diabetes, heart infection, kidney or liver disease
- You have recently had a stroke, surgery on your eyes, brain or spine, or had a heart valve replacement
- You take or plan to take any of these medicines:
 - Antiplatelet medicines such as:
 - Aspirin, cilostazol (Pletal®)
 - Clopidogrel (Plavix®)
 - Dipyridamole (Persantine®)
 - Aggrenox®
 - Prasugrel (Effient®)
 - Ticagrelor (Brilinta™)
 - Ticlopidine (Ticlid®)
 - Vorapaxar (Zontivity®)
 - NSAIDs such as:
 - Diclofenac (Voltaren®)
 - Diflunisal (Dolobid®)
 - Etodolac (Lodine®)
 - Ibuprofen (Motrin®, Advil®)
 - Indomethacin (Indocin®)
 - Ketoprofen (Orudis®)
 - Ketorolac (Toradol®)
 - Meloxicam (Mobic®)

- Nabumetone (Relafen[®])
- Naproxen (Aleve[®])
- Other blood thinners such as:
 - Enoxaparin (Lovenox[®])
 - Dalteparin (Fragmin[®])
 - Fondaparinux (Arixtra[®])
 - Heparin
 - Oxaprozin (Daypro[®])
 - Piroxicam (Feldene[®])
 - Apixaban (Eliquis[®])
 - Dabigatran etexilate (Pradaxa[®])
 - Rivaroxaban (Xarelto[®])
 - Edoxaban (Savaysa[®])

Important Information About Your Medicine

- Tell your doctor about any medicines you are taking, including non-prescription medicines (over-the-counter), nutritional supplements, vitamins, minerals, or herbal products as some of these may increase the risk for bleeding.
- Store this medicine at room temperature and away from excessive heat, moisture and light. **Do not** freeze.
- Keep this medicine out of the reach of children and pets.
- Be careful not to fall, injure, cut or bruise yourself.
- Take special care while brushing your teeth. Use a soft toothbrush and floss gently.
- Apply pressure to any cut for 10 minutes to stop the bleeding. Draw a line around the edge of new bruises to monitor their size.
- You may need to stop taking this medicine before any procedure. Ask your health care team if you should stop this medicine before the procedure. This includes dental work. You may be asked to stop taking warfarin 4 to 5 days before your procedure. You may also get a prescription for another anticoagulant, such as enoxaparin (Lovenox) or heparin. If you are told to stop taking your blood thinning medicines for any reason, be sure to ask when you can start taking it again after the procedure.
- Talk with your doctor or pharmacist if you have questions about taking this medicine.

Timeframe for Therapy

You may take this medicine for at least 3 to 6 months when treating a blood clot. You may need to take it longer. **Do not** stop taking this medicine unless instructed to do so by your doctor or if you have a serious bleeding problem. If you need a refill, contact your primary health care team.

Dosing

Warfarin comes in different strengths. Make sure you know the brand name, color and strength (mg) of your pill. Tell your health care team if you notice changes in the color and shape of your pill.

It is best to take warfarin at the same time every day between 5 p.m. and 8 p.m. Follow the dosing schedule exactly as your doctor has prescribed.



Warfarin begins to work within 24 hours but the full effect may take 3 to 5 days. Until the warfarin has had time to take the effect, you may need to take an injectable anticoagulant (like enoxaparin (Lovenox), dalteparin (Fragmin) or heparin at the same time as warfarin. You will need to take both medicines until your blood level is stable. This usually takes at least 5 days. You may also need to take an injectable anticoagulant if your lab values are below the goal.

If warfarin therapy is stopped, the blood thinning effects may continue for 2 to 5 days. You will have frequent lab work done (PT/INR test) to monitor the ability of your blood to form clots. This will help to make sure you are taking the right dose of warfarin. Keep all lab appointments and clinic visits scheduled with your doctor.



Missed Dose

If you miss a dose of Warfarin, follow these instructions if you are scheduled to take this medicine **1 time a day**.

Situation	What to Do	Example
You remember your missed dose on the same day.	Take the dose immediately. That new time is now your normal dose time.	If you take your medicine at 5 p.m. but forget until 7 p.m. that same day, take the dose at 7 p.m. You will then take medicine at 7 p.m. going forward.
You forgot your dose until the next day.	Take your dose at your normal dose time.	If you take your medicine at 5 p.m. but forgot on Monday. Then, take the dose at 5 p.m. on Tuesday and every day going forward.



Do not double up on your dose.

Side Effects

- Bleeding/bruising
 - You may bruise and bleed more easily.
 - Try not to cut or injure yourself. If you shave, always use an electric shaver.
 - **Do not** take any aspirin or other pain relievers such as ibuprofen (Advil or Motrin) or naproxen (Naprosyn or Aleve) unless your doctor says it is OK. These medicines can affect how your platelets work. Your doctor will monitor your platelet count while on this medicine.

These are the most common side effects. Other side effects may occur and should be reported to your doctor. **Do not** change your dose or schedule unless you are told to do so by your doctor or if you are having a serious bleeding problem. Report any problems to your doctor, nurse or pharmacist.

Monitoring

Warfarin is monitored by a blood laboratory test called international normalized ratio or INR. Be sure to keep all of your appointments so your doctor can monitor your INR level. Your dose of warfarin may be changed to get to your goal INR range. For the first few weeks, the lab test will be monitored every week or 2 times a week. When the results are in the goal range, monitoring is less often.

Causes of INR Changes

Serious illness

- A serious illness can change how your body responds to warfarin. Your INR may go up and raise your risk for bleeding if you have:
 - Heart failure
 - A fever
 - The flu
 - A viral or bacterial infection
 - Nausea
 - Vomiting
 - Diarrhea

If you have any of these tell your doctor or nurse. Also, talk with your doctor before you start any antibiotics (medicines used to treat infection).

Other medicines

Tell your doctor about any medicines you take. This includes non-prescription medicines (over-the-counter), nutritional supplements, vitamins, minerals or herbal products. Warfarin may not mix well with many other medicines. Talk with your doctor or pharmacist before you start any new medicines or stop any current medicines.

- If you take a multivitamin, note how much vitamin K it has because it can affect your INR level.
- Some herbal products that **increase** the effect of warfarin include bromelains, danshen, don quai, garlic, ginger, Ginkgo biloba, ginseng, horse chestnut, licorice, onion, parsley, passionflower, tonka beans and willow bark.
- Herbal products that **decrease** the effect of warfarin include coenzyme Q10, green tea leaves, St. John's wort and yarrow.

This is only a short list of herbal products known to have an effect on warfarin. Most products, however, have not been studied enough and many have different names.

Alcohol

- Limit alcohol while you take this medicine.
- Alcohol can change how warfarin works and it is not always predictable.
- Talk with your doctor or pharmacist about acceptable limits.

Diet

- Vitamin K in certain foods can cause the INR to decrease.
- Try to **keep a consistent** amount of vitamin K in your diet from week to week.

- Foods that contain vitamin K include green leafy vegetables (such as broccoli, cabbage, collard greens, kale, lettuce, spinach), soybean oil, meats, dairy products, egg yolks, and liver. See chart below.
- **Do not** change your vitamin intake significantly without discussing with your doctor.
- Talk with your health care team before you start or change any oral, vitamin-fortified nutritional supplements (such as Ensure® or Boost®) or if you drink pomegranate juice.
- If you have any questions, ask your dietician about specific dietary changes while you take warfarin.

Foods		Vitamin K Content
Beverages		
Dried tea leaves (if dried green tea leaves, limit 1 cup per day)		High
Coffee (caffeinated, brewed, decaffeinated, instant)		Low
Fruit juices (different types), milk, tap water, cola (regular or diet)		Low
Tea (black, green, brewed)		Low
Dairy Products and Eggs		
Egg yolks (25 mcg vitamin K/1 egg yolk)		High
Butter, eggs, sour cream, yogurt, cheddar cheese		Low
Grains		
Plain bagel, spaghetti, white rice		Low
Bread, cereal, flour, oatmeal (assorted types)		Low
Fruits		
Apples (except green apple peel)		Low
Bananas, blueberries, cantaloupe		Low
Grapes, grapefruit, lemons, orange, peaches		Low
Meat		
Beef, pork and chicken liver		High
Beef, ham, pork, turkey, mackerel, chicken, shrimp, tuna		Low
Fats and Dressings		
Portion size: For foods low in vitamin K – Use 7 tablespoons for beverages, meats and medium-sized whole fruits. Use no more than 16 tablespoons (1 cup) for other foods listed.		
Mayonnaise, canola oil, salad dressing, soybean oil	7 tablespoons	High
Olive oil, margarine	7 tablespoons	Medium
Corn oil, peanut oil, sesame oil	7 tablespoons	Low
Sunflower oil, safflower oil	7 tablespoons	Low
Vegetables		
Broccoli	½ cup	High
Brussels sprouts	5 sprouts	High
Cabbage, mustard greens (raw)	1½ cups	High
Chickpeas (garbanzo beans)	1/8 cup (1 oz.)	High
Collard greens	½ cup	High
Endive (raw)	2 cups	High
Green scallion (raw)	2/3 cup	High

Foods		Vitamin K Content
Kale (raw)	$\frac{3}{4}$ cup	High
Lentils	$\frac{1}{8}$ cup (1 oz.)	High
Mustard greens	1 cup	High
Okra	1 cup	High
Parsley	$1\frac{1}{2}$ cups chopped	High
Peas	1 cup	High
Soybeans	1 cup	High
Spinach (raw)	$1\frac{1}{2}$ cups	High
Turnip greens (raw)	$1\frac{1}{2}$ cups chopped	High
Watercress (raw)	3 cups chopped	High
Lettuce (bib, leaf)	$1\frac{3}{4}$ cups	High
Lettuce (iceberg)	5 leaves	Medium
Asparagus	7 spears	Medium
Avocado	1 small	Medium
Red cabbage	$1\frac{1}{2}$ cups	Medium
Green peas (cooked)	$\frac{2}{3}$ cup	Medium
Green beans	$\frac{3}{4}$ cup	Low
Carrot	$\frac{2}{3}$ cup	Low
Cauliflower, cucumber	1 cup	Low
Celery	$2\frac{1}{2}$ stalks	Low
Corn	$\frac{2}{3}$ cup	Low
Eggplant	$1\frac{1}{4}$ cups	Low
Mushroom	$1\frac{1}{2}$ cups	Low
Onion, green pepper (raw), potato, tomato, pumpkin		Low
Sauerkraut (canned)	$\frac{1}{2}$ cup	Low
Condiments and Sweeteners		
Honey, Jell-O [®] gelatin, sugar (white, granulated)		Low
Peanut butter		Low
Pickle (dill)	1 medium	Low
Supplements		
Ensure [®] High Calcium	8 oz. can	High
Carnation [®] VHC	8 oz. can	High
Boost/Boost Plus [®]	8 oz. can	High
Ensure [®] /Ensure [®] Plus	8 oz. can	Medium
Carnation [®] Instant Breakfast	8 oz. can	Medium
Resource Breeze	8 oz. carton	Medium

Emergency Care

Talk with your doctor **right away** if you develop skin rash, hives or itching, or blistering or peeling of your skin.



Call 911 or go to the nearest hospital emergency center if you notice any of the following:

- Allergic reaction
 - Swelling of your face, mouth or tongue
 - Tightness in your chest or throat
 - Shortness of breath or wheezing
 - Fast or irregular breathing
 - Light-headedness, fainting, dizziness or confusion
- Unusual and serious bruising or bleeding from anywhere on your body
- Bright red blood in your stool or dark tarry stools
- Blood in your urine (pink-tinged, red or dark brown)
- Coughing or vomiting of blood or coffee-ground-like substance
- Serious fall or hit to your head
- Chest pain or shortness of breath
- Irregular heartbeat
- A change in your mental status, confusion, very bad headache, drowsiness, slurred speech, sudden unexplained vomiting, numbness or weakness in a limb, change in vision or ability to walk
- Redness, swelling, warmth or pain in your arms or legs
- Any other serious symptoms or changes in your health

Cost of Medicine

If needed, help is available to cover the cost of your medicines. If you had your prescription filled at an MD Anderson pharmacy, contact the pharmacy to determine if you qualify for an assistance program. If your prescription was filled outside of MD Anderson, contact your health care team to discuss other options for treatment.

If you have questions, send your team a message in MyChart. Expect a response within 1 business day. Each medical message goes to your doctor's nursing team to ensure messages are read in a timely manner. If your concern is urgent, call your center and ask to speak with a nurse. If you need to reach someone after hours and weekends, call askMDAnderson at 877-632-6789 to talk with a nurse.

Resources

For additional resources visit the MD Anderson Blood Clots and Anticoagulants website <https://bit.ly/BloodClotsandAnticoagulants> or scan the QR code.

- Make sure your mobile device has an internet signal or Wi-Fi connection.
- Open the camera app on your smartphone or tablet.
- Scan the QR code with the camera on your device.
- Tap the pop-up notification. The video will play in your web browser.



Warfarin Calendar

- Fill in the dose of warfarin your doctor instructed you to take each week.
- After you take the dose, record the time on the correct day.
- If you have an INR measured, fill in the level on the correct day.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Dose							
Time							
INR							
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Dose							
Time							
INR							
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Dose							
Time							
INR							
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Dose							
Time							
INR							
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Dose							
Time							
INR							

Warfarin Identification Card

Consider printing out this patient identification card and placing in your wallet in case of emergency. This will help medical teams be aware you are taking this medicine.

Patient Identification Card

To anyone providing medical care:

(name)

is taking warfarin, an anticoagulant.

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In an emergency, call:

Name: _____

Address: _____

Phone: _____

Doctor's name: _____

Doctor's phone: _____