

What You Should Know About Your Diet and Warfarin

What is warfarin?

Warfarin is a medication that helps “thin” your blood to decrease your body’s chance of forming harmful clots. Unwanted blood clots may cause strokes, heart attacks, or other potentially harmful events such as clots in the legs (deep vein thrombosis) or lungs (pulmonary embolism).

How does warfarin work?

There are proteins in your blood to help form clots. These proteins are made by your liver with the help of vitamin K. Warfarin works by blocking the effects of vitamin K, making it harder for your body to form clots. In order to make sure the amount of warfarin you’re taking is right for you, your healthcare professional will test your blood periodically. The blood test checks your protime (PT) or international normalized ratio (INR) to measure how long it takes for your blood to clot. If your PT/INR is outside your target range, your warfarin dose will need to be adjusted.

How does your diet affect warfarin?

Since vitamin K and warfarin work against each other, the amount of vitamin K in your diet can change warfarin’s effects. It is important to keep your dietary intake of vitamin K consistent. Foods such as green leafy vegetables and certain oils have higher contents of vitamin K. (See the next page for a chart of vitamin K content in selected foods). If you **DECREASE** your intake of vitamin K (eat fewer foods containing vitamin K) your dose of warfarin may need to be lowered to prevent bleeding. If you **INCREASE** your intake of vitamin K, your dose of warfarin may need to be increased to prevent blood clots. A **MAJOR** change in your vitamin K intake can affect your PT/INR, but normal daily variation in the foods you eat is okay. You **DON’T** have to avoid foods that are high in vitamin K, just keep your diet consistent. You should let your healthcare professional know if there is going to be a major change in your diet, so your PT/INR can be closely monitored.

Many people are on special diets, such as the Atkin’s or South Beach diets, to lose weight. These diets are high protein diets and can also affect the way warfarin works in your body. Once you take a dose of warfarin, some of it binds to protein in your bloodstream. While warfarin is attached to this protein, it has no effect on your body. It’s thought that high protein diets can increase the amount of proteins in your body and cause more warfarin to be bound to protein. This causes a **DECREASE** in warfarin available to prevent clots, so your warfarin dose may need to be increased. Always check with your healthcare professional before starting any special diets, so your PT/INR can be closely monitored.

Certain foods can also affect how your liver clears warfarin from your body, causing warfarin levels to increase or decrease. Examples include alcohol, and possibly cranberry products (e.g., juice, supplements) or grapefruit or grapefruit juice. Too much alcohol, cranberry products, or grapefruit products can potentially **INCREASE** warfarin’s effect and increase your risk of bleeding. Avoid or limit your intake of alcohol, cranberry products, and grapefruit or grapefruit juice. Make sure your healthcare professional knows if your diet contains any of these products, so your PT/INR can be closely monitored.

Should you avoid multivitamins that contain vitamin K?

Many multivitamin supplements contain small amounts of vitamin K. It's not necessary to avoid them, just make sure you take them on a regular basis. Always let your healthcare provider know when you start or stop taking a multivitamin which contains vitamin K.

What about vitamin K supplements?

There are other supplements that only contain vitamin K. They may be labeled as vitamin K₁ (phylloquinone or phytonadione) or vitamin K₂ (menaquinone or menatetrenone). These supplements generally contain more vitamin K than regular multivitamins. Some patients with difficult to control INRs may benefit from taking a vitamin K-only supplement. However, you should not take these supplements on your own. Your healthcare provider will tell you if you should be taking vitamin K supplements, and how much. If you use a vitamin K supplement, select a product with vitamin K₁. It is the most commonly used form of vitamin K. Be sure to stick with the same brand of vitamin K to avoid differences between products.

Other things to remember when taking warfarin

In addition to foods, many prescription and over-the-counter drugs, including vitamins and herbal supplements, can affect your warfarin level. You should not start, stop, or change doses of any drugs or supplements without first talking with your healthcare professional. Try to keep a healthy, well-balanced diet and keep your vitamin K intake consistent. Take your warfarin dose around the same time each day. If you miss a dose, take it as soon as you remember. If it is almost time for the next dose, skip the missed dose and continue your regular dosing schedule. Don't double up doses without checking with your healthcare professional. Tell your healthcare professional immediately if you have unusual bleeding or bruising, black or bloody stools, blood in the urine, or stomach pain.

—Continue to the next page for a list of foods containing vitamin K—

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Vitamin K Content of Selected Foods*

Note: This is NOT a list of foods to avoid. This list provides information on the vitamin K content of certain foods.

Vitamin K Content			
Foods	Low	Moderate	High
Vegetables			
	Green beans	Asparagus	Broccoli
	Carrots	Avocado	Brussels sprouts
	Cauliflower	Red cabbage	Cabbage
	Celery	Green peas	Collard greens
	Corn	Lettuce (iceberg)	Endive (raw)
	Cucumber (peel removed)	Pickle (dill)	Kale (raw leaf)
	Eggplant		Lettuce (bib, red leaf)
	Mushrooms		Mustard greens (raw)
	Onions		Parsley
	Green pepper		Spinach
	Potato		Turnip greens (raw)
	Pumpkin		Watercress (raw)
	Sauerkraut (canned)		Swiss chard
	Tomato		
Fruits			
	Apple/Peach		
	Banana		
	Blueberries/Grapes		
	Grapefruit		
	Lemon/Orange		
Meats/Fish			
	Beef		
	Chicken		
	Pork/Ham		
	Mackerel/Tuna/Shrimp		
	Turkey		
Fats and Oils			
	Corn oil	Margarine	Mayonnaise
	Peanut oil	Olive oil	Canola oil
	Safflower oil		Soybean oil
	Sesame oil		
	Sunflower oil		
Dairy Products			
	Butter		
	Cheese (cheddar)		
	Eggs		
	Sour cream		
	Yogurt		
Beverages			
	Coffee		
	Cola		
	Fruit juices		
	Milk		
	Tea (black)		Tea (green)**

* Adapted with permission from Clotcare Online Resource at www.clotcare.com. (Accessed May 19, 2009).

** There is some controversy as to whether brewing green tea alters the vitamin K content and/or whether green tea may alter the effect of warfarin by some other mechanism. [Updated June 2009].