

Coumadin

What is Coumadin?

Coumadin, also known as warfarin, is a medication used to prevent blood from forming abnormal clots. Commonly referred to as a “blood thinner” or “anticoagulant”, Coumadin prevents blood from clotting by partially blocking the liver’s ability to use Vitamin K. Without Vitamin K, clotting factors are suppressed and blood clots are less likely to be formed. Since the drug decreases the body’s ability to clot or stop bleeding, patients taking Coumadin must be monitored carefully by a physician.

Who Takes It and Why?

Approximately two million Americans begin taking Coumadin each year, typically because they either have been diagnosed with a blood clot or are at high risk for developing blood-clots. Many different conditions exist which can increase a person’s risk for blood clots, from recent surgery to genetic clotting disorders, but most are related to some type of heart condition. Following is an overview of the most common conditions for which Coumadin may be recommended:

Atrial fibrillation and atrial flutter. This disorder causes the heart to beat in an irregular order, usually very fast, posing a threat of blood clots in the atria of the heart. These clots may dislodge and embolize to the brain, causing a stroke or embolize to other parts of the body. Coumadin prevents the formation of blood clots in the atria and thus, reduces the risk of stroke.

Heart attack. Some patients, especially those suffering a large heart attack, are at risk for developing blood clots over the infarcted area. This can be detected by an echocardiogram. Coumadin may prevent the formation of such blood clots, help

dissolve clots and prevent embolization of clots to the arteries (thus preventing strokes).

Blood clot. Coumadin is often used to treat blood clots in the leg (deep vein thrombosis) or lungs (pulmonary embolism). It will not break up existing clots, but it will keep them from getting larger and prevent new clots from forming.

Stroke. Coumadin may be prescribed if you have a history of stroke or are at risk for stroke. It lowers the chances of stroke by preventing the formation of blood clots that may embolize to the brain.

Prosthetic heart valves. Coumadin is often prescribed after replacement of heart valves with

Guidelines for Taking Coumadin

- Make sure your doctor knows all medicines you are taking.
- Take your Coumadin once a day at the same time every day (evening is best), with or without food.
- If you miss a dose, you may take it later in the day, but do not wait until the next day. Make sure you report the missed dose to your doctor or clinic, and never take a double dose.
- Make sure your INR is checked and monitored regularly. Don’t miss an appointment to have your blood checked.
- Do not start new medications or supplements without talking to your doctor first.
- Eat a balanced diet with moderate amounts of Vitamin K and report any diet changes to your doctor.
- Exercise caution during activities and avoid contact with sharp objects.
- Call your doctor immediately if you think something is wrong.

mechanical prostheses, as artificial heart valves are at risk of forming blood clots. However, tissue valves (bioprosthesis) do not require chronic use of Coumadin.

Hypercoagulable conditions. Some patients have a trend for forming blood clots due to genetic disorders or acquired conditions (prolonged bed rest, orthopedic surgery, malignancy, for example). Coumadin reduces the risk of forming blood clots and embolization to the brain, systemic organs and lungs (pulmonary emboli).

Finding the Right Balance

When prescribing Coumadin, it is very important that your doctor find the perfect balance (or amount) of drug for your body. There is no standard dose approach to this medication, as different bodies metabolize it very uniquely. Too little Coumadin may put you at risk for forming clots. But too much could lead to serious bleeding problems.

Genetic testing can be very helpful in determining the initial dose of Coumadin, as studies have proven that certain genes directly affect how the body metabolizes the drug. Through a simple blood test or cheek swab, your doctor can learn whether or not you carry these genes, and therefore determine proper dosing. A more common, and less expensive way to find initial dosing is through a simple blood test called the International Normalized Ratio (INR)—a basic measure of how long it takes your blood to form clots. From seeing the response of your body to the Coumadin dosing, your doctor can obtain the correct amount of Coumadin for you and monitor therapy.

Once you begin taking Coumadin, your INR will need to be monitored regularly to determine if your dosage needs adjustment—even if genetic testing was used to determine the initial dose. After your first dose of Coumadin, your blood will need to be checked every three to five days, then weekly until it is stabilized. As the results become more consistent, visits can be extended out to once a month. While taking Coumadin, it is very important for a physician to monitor your INR levels and make appropriate adjustments. If the levels are too high or

too low, serious complications can result. Changes in your general health can also affect your body's response to Coumadin, so let your doctor know if you experience any illness like fever, flu, nausea, vomiting, diarrhea or infection.

Watching Your Diet

While taking Coumadin, it is important to maintain a consistent, balanced diet. Foods that are high in Vitamin K may actually work against the drug, so they should be consumed in moderation. As a general rule, you should not eat more than one serving a day of Vitamin K-rich foods. However, if your typical diet includes more than one serving, your Coumadin dose can be adjusted appropriately. Make sure you discuss your diet with your doctor and, if you plan to make any diet changes, let your doctor know so that your INR can be monitored closely. Following are foods that are rich in Vitamin K:

Kiwi	Blueberries
Broccoli	Cabbage
Brussels sprout	Green onions
Asparagus	Cauliflower
Peas	Lettuce
Spinach	Parsley
Kale	Endive
Beef and pork liver	Mayonnaise
Margarine	Canola oil
Soybean oil	Soybeans
Cashews	
Turnip, collard and mustard greens	

It is safe to moderately consume alcohol while taking Coumadin, up to one drink per day (and no more than two on special occasions). However, serious complications can result when more than two drinks are consumed or the usual pattern is altered.

Coumadin and Other Medications

There are many drugs that should not be taken during Coumadin treatment. Coumadin can change the way other medications work, and other medications can affect how Coumadin works. Before you begin taking Coumadin, it is imperative that you discuss all your current medications with your doctor—prescription, over-the-counter, herbal products and vitamin supplements. And, any medications added during Coumadin treatment should be discussed

with the doctor administering Coumadin—BEFORE they are taken. Medications that decrease the blood's ability to form clots should NEVER be combined with Coumadin as they could put you at risk for serious bleeding. Make sure your doctor knows what medications you are taking while you are using Coumadin therapy.

It May Cause Bleeding

While taking Coumadin, you are at a higher risk for bleeding easily. Because of this risk, you may want to evaluate your activities and eliminate those that have high injury incidence. This doesn't mean that you can't participate in any of your normal activities, but you will want to use caution and protective measures. For example, if you enjoy gardening, make sure you wear protective gloves and shoes to avoid scrapes and cuts. It is also important to be aware that bleeding can occur under the skin, even when the skin is not penetrated. While taking Coumadin, if you experience a bad fall, it is very important that you see a doctor immediately—even if there is not sign of bleeding or a bruise.

Some slight bleeding is the most common side effect of Coumadin. You may notice an occasional, minor bleeding of the gums during brushing or an increase in small bruises when you begin taking Coumadin. However, if you notice more significant bleeding or ever feel that something is wrong, you should contact your doctor or your clinic immediately. It is always best to err on the side of caution.

We'll Monitor you Personally

At Baylor College of Medicine, patients always come first. If you are taking Coumadin, we want to make sure you are being monitored properly and effectively. With our staff of highly-trained physicians, we will make sure you are getting the attention you need and the dose that is right for you. And, because all of our doctors work in a collaborative environment, we can ensure that you are not at risk for any adverse drug interactions while on the medication. You can trust that your doctors at BCM know you and they will work collaboratively to treat you. With our integrated approach, we combine the best of medicine, science, education and service to deliver comprehensive, compassionate care.

Taking Personalized Care to a New Level

During the aftermath of Hurricane Ike, Baylor Clinic went the extra mile to make sure their Coumadin patients were still being monitored—literally. Due to flooded streets and downed power lines, many elderly heart patients were unable to travel to the clinic for their scheduled IPN check. So, armed with maps and portable blood meters, doctors and nurses hit the streets of Houston and brought back a thing of the past—house calls. Once in the homes, a quick prick of the finger gave an instant reading to determine if IPN levels were within target range. Although the visits were quick and painless, for some the resulting adjustments were life-saving. When you talk about personalized medicine, this is definitely it.

We realize that taking Coumadin comes with a risk—and you can trust the best minds in medicine to manage that risk for you. Whether you are being treated through cardiology, internal medicine, or any other department at Baylor, we have the tools, resources, and expertise to make sure you are receiving the specialized care you deserve. We know each individual is unique and responds differently to Coumadin—we will treat you as a person, and meet your specific needs. And, as far as monitoring goes, we want to make it easy on you. We'll make sure your monitoring appointments are made at a convenient time for you, and then when your appointment arrives, we'll make sure you get in and out quickly. We've got it down to a science—just a quick finger prick and an instant reading—and you're on your way. And, if you can't make it to the clinic for some reason, we'll come to you—it's just that personal.

Our Research Means Better Medicine for You

At Baylor College of Medicine, we are committed to delivering the best medicine possible. This means that we are constantly developing new technologies and making new discoveries—right here in our offices. What we are discovering today can benefit you tomorrow. Right now, we have efforts ongoing that are making advancements in Coumadin therapy. Here are just a couple of examples:

Genetic Testing: Genetic testing has been proven to be a key factor in determining accurate dosing for Coumadin. However, right now the testing is very expensive. Through research efforts at BCM, we are making great strides in streamlining the costs of these tests to make them more affordable for all patients—after all, it is all about you.

Clinical Trials: BCM has applied for a clinical trial of a new anticoagulation drug which promises to be more stable and less affected by diet and other drugs. We hope to deliver this option to our qualified patients soon.

Call Us Today—We’re Waiting for You

The Baylor Clinic, we have some of the best minds in medicine working on your team. We offer personalized care for the whole person and the whole family, meeting the needs of all ages and addressing all types of healthcare concerns. Our patients benefit from:

- Board-certified physicians and certified physician’s assistants
- Onsite specialists, when needed, expediting your treatment
- Innovative treatments based on the latest research findings
- Modern systems that make the healthcare process easier
- A collaborative environment that brings together multiple specialists all working together to improve your care and treatment.

Sources:

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Food and Drug Administration, Agency for Healthcare Research and Quality, BCM, Mayo Clinic

Learn if Coumadin is right for you. Contact a Baylor Clinic expert physician today.

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