

# Anticoagulation Management Services



**Centegra**  
HealthSystem

WELL BEYOND EXPECTATION<sup>SM</sup>



## Welcome

We hope this booklet will help you learn why you need to take warfarin **coumadin**, how warfarin helps to protect you, and what you can/should do to keep yourself safe while taking warfarin.

Many people feel anxious or nervous when they first start taking warfarin. This is normal. Most people feel better about taking warfarin as they learn more about how it works and how it can help them. People learn that they can keep doing most of the things they did before starting warfarin without worry.

The good news is that most people taking warfarin will have no serious problems with the medicine. But for the medicine to help you most, you need to take it as directed by the pharmacist at this clinic or by your physician, and have your blood tested as often as needed.

At any time while you are taking warfarin, if you have any questions or concerns about your health or safety, please ask one of the clinic pharmacists or your physicians; do not stop taking warfarin or change your dose without telling us.

## What is warfarin (coumadin)?

Warfarin is an anticoagulant which helps prevent harmful blood clots from forming in the body

- **Anti** meaning **against**
- **Coagulation** meaning **clotting**

For most people, blood clots are not harmful because the body dissolves them before they cause problems. But for some people clots can cause problems before the body has a chance to remove them. Warfarin helps prevent harmful blood clots from forming in the body. Many people call warfarin **coumadin** a “blood thinner,” but his medication DOES NOT make your blood thin or runny.

Warfarin may also be sold under the names **coumadin** or **jantoven**. These are all names for the same medicine.

*\*Warfarin will be used to reference this medication for the remainder of this book.*

## Who takes warfarin?

Warfarin helps people who have had a harmful blood clot or who are at risk of a harmful clot forming in their body. Examples of conditions that put people at a high risk of forming harmful blood clots include:

- Irregular heartbeat (Atrial Fibrillation; A-Fib)
- Blood clot in the veins of the leg (Deep Vein Thrombosis; DVT)
- Blood clot in the lungs (Pulmonary Embolism; PE)
- Blood clots following surgery to replace or repair a heart valve
- Prolonged surgeries
- Long periods of immobility or bed rest

If you do not know why you need warfarin, talk to your doctor or healthcare provider.

## How often do I need to have my blood tested?

To help us decide the dose of warfarin you need, your blood must be tested. The blood test tells how fast your blood is clotting and how well your dose of warfarin is working.

When you start taking warfarin, you may need a blood test done every few days for a couple of weeks, until your dosage is determined. Frequent testing is needed when you start warfarin so that you only get the amount you need. Your blood will need to be checked at least once a month as long as you take warfarin to make sure you are getting the right dose to prevent blood clots.

## What is the usual dose of warfarin?

There is no “standard” or “average” warfarin dose. Each person’s dose is different and is affected by how fast the body processes warfarin. Warfarin tablets come in a range of tablet strengths from 1 mg to 10 mg, allowing us to determine the best dose for each person.

## **What is a protime test?**

A protime test (short for Prothrombin time and abbreviated PT) is the length of time it takes your blood to clot. By measuring this test, we can tell how well the warfarin is working and whether your dose should be adjusted.

## **What is an INR?**

INR stands for International Normalized Ratio. The INR is another way to report and interpret the protime test results.

## **What can change my PT/INR results?**

Illness, diet, missed doses, and other medicines may affect your INR. It is important that you tell us about changes in your health, medication, or your lifestyle so we can monitor your PT/INR more closely.

## **Clinic/insurance information**

Your physician has referred you to the Anticoagulation Clinic for management of your warfarin therapy. You will be seen by a registered pharmacist with concentrated training specific to anticoagulation therapy. A medical history will be obtained from you. At each office visit, your current medication profile will be reviewed and updated to monitor for medication changes that may affect your warfarin dosing. You will be monitored for signs or symptoms of possible adverse events such as bleeding or clot formation. A protime blood test will be performed and the results obtained and evaluated. This result will be reviewed with you and necessary dosage adjustments will be made if indicated. You will leave the office with your results, dosage instructions, and next office appointment date.

Medicare/Medicaid or private insurance will pay for all or part of the Anticoagulation Clinic charges in most cases. It is recommended that you verify coverage with your insurance carrier, as plans vary between carriers. Centegra Health System provides direct billing to Medicare/Medicaid and private insurance plans.

Your insurance information is recorded during the registration process at your first visit to the Anticoagulation Clinic. It is very important that you let us know when your insurance changes so that your registration can be updated. When you get a new insurance card, please bring it to your next clinic visit so a copy can be made.

Many HMO insurance plans require a separate approval to be seen in our clinic. If your insurance company requires pre-approval for clinic visits, your primary doctor will need to complete an insurance referral form for you. Please make sure you have a current insurance referral form at all times.

You will leave the Centegra Anticoagulation Management Services office with

- your results,
- dosage instructions, and
- next office appointment date

# BLOOD CLOTS AND BLEEDING

## *Signs and Symptoms*

### How blood clots form

There are substances in the body that make sure that the blood clots properly. These are called clotting factors. When an injury occurs, the body forms a blood clot to stop the bleeding (hemostasis). This also protects against infection. When the injured area is healed, the body gradually reabsorbs the clot because it is no longer needed.

There are times when the body develops harmful blood clots. These circumstances include long periods of inactivity, such as from paralysis, very long surgical procedures, or when parts of the body are in a cast.

Pregnancy is also a time when the body is more prone to clotting. Near the end of pregnancy, a protective mechanism develops to prevent too much blood loss at delivery. This protective mechanism can sometimes cause unnecessary blood clotting.

Blood clots in certain parts of the body can be harmful, such as in the heart, brain, lungs, arms, or legs. The blood clot blocks blood and oxygen from reaching the area beyond the blood clot. More seriously, a piece of the blood clot can break off and travel through the circulatory system. This can be life threatening.

### What are the signs of a blood clot?

#### **Signs of blood clot in leg or arm:**

- Severe pain, redness, warmth, or swelling

#### **Signs of blood clot in lungs:**

- Chest pain, especially on inhalation
- Shortness of breath
- Rapid, shallow breathing
- Rapid heart rate
- Coughing up blood
- Bluish color to skin

**Signs of stroke or transient ischemic attack (TIA) - sudden onset of any of the following:**

- Dizziness, confusion, or headache
- Inability to speak or slurred speech
- Transient blindness or changes in vision
- Weakness, numbness, or tingling, particularly on one side

**Conditions for which warfarin may be prescribed**

**Deep Vein Thrombosis (DVT)**

A DVT is a blood clot that forms in one of the large veins in the arm or leg. This clot causes damage by blocking blood flow that leads to swelling and discomfort in part of all of the involved arm or leg. A DVT can sometimes break off and travel to the lungs, causing a pulmonary embolism.

**Pulmonary Embolism (PE)**

A PE is a blood clot in the lung. This type of clot is dangerous because it can prevent oxygen from getting through your lung and into your body. A person with this type of clot may have shortness of breath and chest pain. The seriousness of this problem depends upon clot size and exact location in the lung.

**Atrial Fibrillation (A-Fib)**

This condition causes an abnormal beating of the heart. The heart may beat at a faster than normal rate and the pulse may be irregular. As a result, the blood is not pumped out of the heart as it should be. This can cause a blood clot to form in your heart. The blood clot can travel to other parts of the body, such as the brain or lung, and cause a stroke or pulmonary embolism.

**Artificial Heart Valve**

Because an artificial heart valve is made of man-made substances, the body recognizes it as foreign and attempts to protect the body against it. Blood clots may form as a result. These clots can travel also to other parts of the body and can cause serious problems, such as strokes.

## **Hereditary Disorders**

The body makes proteins that prevent the blood from clotting when it shouldn't. These proteins are called Protein C, Protein S, and Antithrombin III.

Some people are born with a deficiency in one or more of these proteins and are at risk for developing blood clots. Other people produce substances, such as anticardiolipin antibodies that also increase blood clotting.

## **Stroke or Brain Attack**

A stroke occurs when a blood clot forms in one of the blood vessels in the brain. Some people who have had a stroke and those who are at high risk for having another stroke need to take medication to prevent blood clots from forming in the brain.

## **Bleeding – excessive or abnormal**

Because of clotting disorders, people are put on medications that prevent the clot from forming. If too much medication is used, bleeding may occur. It is important to watch for signs of bleeding. It is very important to call the Anticoagulation Management Services if there are signs or symptoms of bleeding.

### **Signs of bleeding:**

#### *Minor Bleeding*

- Gums bleed while brushing teeth
- Excessive bruising, or bruising from unexplainable cause
- Longer period of bleeding after minor cuts
- Prolonged menstrual bleeding
- Occasional nose bleeds

#### *Major Bleeding*

- Blood in the urine (urine is dark red to brown in color)
- Bowel movements that are bloody, black, or tarry
- Coughing up blood
- Severe headache
- Stomach ache or back ache
- Bleeding into the whites of the eyes
- Very large bruises that do not heal
- Continuous or large amounts of bleeding – call your physician or proceed to the emergency room



## Food interactions with warfarin

The US Food and Drug Administration recommend a daily intake of 80 micrograms of vitamin K, based on a 2000-calorie diet. This amount is called the Daily Value. The total amount of vitamin K you consume may vary from day to day; it may be higher or lower than the recommended 80 micrograms.

FOODS	PORTION	VITAMIN K (mcg)
Kale, frozen, cooked, boiled	1 cup	1147
Kale, cooked, boiled	1 cup	1062
Collards, frozen, chopped, cooked, boiled	1 cup	1059
Spinach, frozen, chopped or leaf, cooked, boiled	1 cup	1027
Spinach canned	1 cup	988
Spinach, cooked, boiled	1 cup	888
Turnip greens, frozen, cooked, boiled	1 cup	851
Collards, cooked, boiled	1 cup	837
Beet greens, cooked, boiled	1 cup	697
Dandelion greens, cooked, boiled	1 cup	579
Turnip greens, cooked, boiled	1 cup	529
Mustard greens, cooked, boiled	1 cup	419
Brussel sprouts, frozen, cooked, boiled	1 cup	419
Broccoli, cooked, boiled	1 cup	220
Brussel sprouts, cooked, boiled	1 cup	219
Onions, spring or scallions (includes tops & bulb) raw	1 cup	207
Lettuce, butterhead raw (includes boston & bibb)	1 cup	167
Parsley, fresh sprigs	10	164
Cabbage, cooked, boiled	1 cup	163
Broccoli, frozen, chopped, cooked, boiled	1 cup	162
Noodles, egg, spinach, cooked, enriched	1 cup	162

FOODS	PORTION	VITAMIN K (mcg)
Spinach, raw	1 cup	145
Asparagus, frozen, cooked, boiled	1 cup	144
Lettuce, iceberg raw (includes crisphead)	1 head	130
Endive, raw	1 cup	116
Broccoli, raw	1 cup	89
Okra, frozen, cooked, boiled	1 cup	88
Lettuce, green leaf, raw	1 cup	71

Reference: [Understanding your COUMADIN therapy](#); Bristol-Myers Squibb; 293US11BC00901, 12/11

A more detailed list is available at the US Department of Agriculture website at [www.usda.gov](http://www.usda.gov). Search for the National Nutrient Database for Standard Reference.

## Important safety information

- Tell all of your healthcare providers and dentists that you are taking warfarin.
- Tell your healthcare provider about ALL the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements.
- If you miss a dose of warfarin
  - Take the dose as soon as possible on the SAME DAY.
  - Do NOT take a double dose of warfarin the next day to make up for a missed dose.
- Call the Anticoagulation Clinic if you:
  - are sick with vomiting and/or diarrhea
  - have an infection
  - begin taking an antibiotic
  - take too much warfarin
  - have a fever
  - have a change in medications
- Call your healthcare provider or seek emergency medical attention if you fall or injure yourself, especially if you hit your head.
- If you become pregnant, discontinue your warfarin and contact your healthcare provider. Warfarin is contraindicated in women who are or may become pregnant because the drug passes through the placenta barrier and may cause fatal hemorrhage to the fetus. Furthermore, there have been reports of birth malformations in children born to mothers who have been treated with warfarin during pregnancy.

*Reference, Package Insert, warfarin*





## Next Appointments

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## LOCATIONS

### **Centegra Hospital-Woodstock**

3701 Doty Road, Woodstock

(P) 815-334-3833 (F) 815-334-3832

*Located in the Imaging Department*

### **Centegra Hospital-McHenry**

4201 W. Medical Center Drive, McHenry

(P) 815-759-4744 (F) 815-759-4746

*Located in the Ambulatory Treatment Center*

### **Centegra Health Center-Huntley**

10350 Haligus Road, Huntley

(P) 847-802-7243 (F) 847-802-7210

*Located in the Immediate Care building*

### **Crystal Lake Medical Arts**

360 Station Drive, Crystal Lake

(P) 815-356-2325 (F) 815-759-4127

*Located on the 1st floor*

**centegra.org**



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