Atrial Fibrillation

What is atrial fibrillation (a-fib)?

Atrial [AY-tree-uhl] fibrillation [fib-reh-LAY-shun] (also called AF or a-fib) is an abnormal heart rhythm that can cause blood clots to form in the heart. A normal heart beats regularly and evenly, about 60 to 100 times a minute. With a-fib, electrical impulses move through the heart too quickly and irregularly causing an irregular and / or rapid heart beat. (See illustration below.)

A-fib can come and go. Your heart beat may return to normal after a few minutes or hours, or it can continue. Left untreated, a-fib can raise your risk for serious medical conditions, including other heart rhythm problems, heart failure, and stroke.

What causes a-fib?

In some cases, the cause can't be identified. Some of the conditions that can raise your risk for A-fib include:

- High blood pressure
- Obstructive sleep apnea
- Obesity
- Heart failure
- A heart attack caused by coronary artery disease
- Age. It is more common in people over 60 years old
- Heart valve disease
- Lung disease
- Thyroid disease
- Family history

A-fib is an electrical problem that makes your heart beat rapidly or unevenly. In a healthy heart, electrical impulses move smoothly from the SA node through the heart. The heart beats evenly and regularly. With a-fib, the electrical impulses come too fast. Some of them circulate in the atria rather than passing through the heart.
How is a-fib diagnosed?
To make a diagnosis, your doctor will:

- Ask about your symptoms and medical history, listen to your heart, and test for factors that might be related to your symptoms.
- Take a chest x-ray to look at your heart and lungs.
- Test the electrical activity of your heart (electrocardiogram, or EKG / ECG). You might be asked to exercise during this test to see how your heart responds to extra activity.
- Use high-frequency sound waves to create images of your heart and blood vessels (echocardiogram, or echo). Depending on your medical situation, this might use an ultrasound probe that moves over your chest, or a TEE (transesophageal echocardiogram) that uses a tiny ultrasound probe in your esophagus.
- Have you exercise on a treadmill and have an EKG or echocardiogram while your heart is working harder. If you can't exercise, medicine will be used to temporarily stress your heart.
- Give you a Holter monitor or event monitor to wear for 24 to 48 hours while you go about your normal activities. The Holter monitor measures the electrical activity of your heart and can sometimes catch the problem. An event monitor is worn for a longer period of time. It saves a record of your heart's activity when you feel a symptom.
- Order an EP (electrophysiology) study to capture and record your heart's activity. It may help to identify the heart cells that are causing the problem.

How is a-fib treated?
Your doctor will set up a treatment plan based on your specific medical situation. Treatments include medicines and procedures to:

- Prevent blood clots
- Control your heart rate
- Help your heart beat at a more normal rhythm
- Manage other conditions that might be causing the A-fib or making it worse

Preventing blood clots
A-fib can cause blood clots to form in the atria. If they are pumped out of your heart into an artery, they can cause a heart attack or stroke. Most patients with A-fib are prescribed an anticoagulant (anti blood clot medicine) to lower their risk of stroke.

- **Tell your doctor about all other medicines** you are taking. Include all prescriptions, over-the-counter drugs (such as cough syrup or allergy pills), inhalers, patches, vitamins, herbal remedies, and especially aspirin. Ask your doctor or pharmacist if any of these items will affect how your anticoagulant works. For example, medicines such as aspirin, ibuprofen, and naproxen increase the effect of some anticoagulants, such as warfarin. And some cold and allergy medicines have stimulants that can cause a rapid heartbeat.
- **Take your medicine exactly as directed.** If there is any reason that you might not be able to purchase or take your medicine, tell your healthcare team. They may be able to help you.
- **Keep your blood test appointments.** Some anticoagulants require regular testing to check the clotting time of your blood. This is called a PT or INR test.
- **Be consistent with your diet,** especially when it comes to foods high in Vitamin K, such as broccoli, lettuce, and spinach.
- **Read your Intermountain anticoagulation education fact sheet** (see page 4) and ask questions about anything you don't understand.

Where can I learn more?
You can learn more about atrial fibrillation at:

- MedLine Plus
- The National Heart Lung and Blood Institute
- The American Heart Association
- StopA-fib.org
Controlling your heart rate

Even if the atria (the upper chambers of your heart) are pumping too fast, medicine can help control the rate of your overall heartbeat. These include:

- **Beta blockers**, which slow down your heart rate by blocking the effects of certain hormones in your body.
- **Calcium channel blockers**, which lower your blood pressure and slow your heart.
- **Digoxin**, which can slow your heart rate and help your heart pump more blood with each beat.

Controlling your heart rhythm

Your treatment will depend on what’s causing your A-fib and what’s needed to control your heart rhythm. Some options include:

- **Medicine.** You might need to take it regularly, or just carry a pill with you to take only if you have symptoms.
- **Cardioversion**. Cardioversion is a procedure to “reset” your heart to a normal rhythm with a light electrical current. This is most often done if medicine isn’t working and symptoms are severe. As part of this treatment, you’ll likely have a TEE (transesophageal echocardiogram) to show whether or not blood clots have formed in the chambers of your heart.
- **Catheterization (cath) lab and surgical procedures.** These are used to treat the heart cells that are causing the problem.
  - In an ablation, a thin, flexible tube called a catheter is threaded through a blood vessel to your heart. A device on the catheter is used to make a tiny scar, directing the signals to the correct pathway.
  - A maze procedure is open-heart surgery. It is done to create scar tissue to keep abnormal electrical impulses from traveling through your heart.

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**What do I need to do next?**

You can help manage your A-fib or keep it from recurring by doing the following:

1. **If you use tobacco, stop.** Talk to your doctor about making a plan. Intermountain’s publication *Quitting Tobacco: Your Journey to Freedom* can help.
2. **Avoid alcohol** if you are taking an anticoagulant (see page 4). Alcohol can interfere with this medicine.
3. **If you have diabetes, control your blood glucose (sugar).** Take your medicine and work with your doctor to manage your diet.
4. **Exercise regularly, and eat a heart-healthy diet** that includes fruits, vegetables, whole grains, and lean protein.
5. **Avoid caffeine and anything with stimulants** that increase your heart rate. These may include diet aids, energy drinks, and cold or allergy remedies.
6. **Take your blood thinners and all medicines exactly as your doctor ordered.** If you are not sure what to do, or have trouble paying for your medicines, talk with your care team. They may be able to help.
7. **Be an active partner in your health care** by keeping your medical appointments, asking your doctor questions to learn more about your condition and treatment, and taking your medicines as directed.
What is an anticoagulant?

Anticoagulants [an-tee-co-AG-yoo-lents] are anti blood clot medicines that are sometimes called “blood thinners.” However, they don’t really thin the blood. Instead, they:

- Stop the action of a certain protein your body needs to make blood clots
- Stop new clots from forming
- Keep blood clots from getting bigger so your body can dissolve them over time.

They do not break up clots that you already have.

The anticoagulants commonly used to treat atrial fibrillation are listed below. Ask your doctor or care team for a copy of the Intermountain fact sheet that describes the medicine you are prescribed.

- Apixaban (Eliquis)
- Dabigatran (Pradaxa)
- Edoxaban (Savaysa)
- Rivaroxaban (Xarelto)
- Warfarin (Coumadin)

Questions for my doctor

What is apixaban?

Apixaban (Eliquis) is an anticoagulant that is used to:

- Stop new clots from forming
- Prevent blood clots from forming in the legs.

People who have hip or knee replacement surgery also use apixaban to prevent blood clots from forming in the legs.

Apixaban interacts with some medicines, sometimes with fatal effects. Never take apixaban with:

- Phenytoin (Dilantin)
- Prasugrel (Effient)
- Rifampin (Rifadin)
- St. John’s wort
- Ticagrelor (Brilinta)

If you miss a dose of apixaban, take it as soon as you remember. DO NOT take more than one dose to make up for the missed dose.

What is dabigatran?

Dabigatran (Pradaxa) is an anticoagulant used to:

- Stop new clots from forming
- Prevent blood clots from forming in the legs.

Dabigatran can help prevent a stroke in people who have atrial fibrillation. It helps prevent blood clots that form in the heart. By preventing blood clots or growing, and to stop pieces of the clot from forming in the leg. It can break loose and travel through the body.

Dabigatran cannot break up clots you already have. If you already have a blood clot, your healthcare providers may decide to give you a different medicine.

DVT is a blood clot that forms in the leg. It can break loose and travel through the body. DVT is often treated with anticoagulants to prevent another DVT from forming or growing and stop pieces of the clot from forming in the leg. It can break loose and travel through the body.

If you have an atrial fibrillation, you may need to take dabigatran to prevent blood clots from forming in your heart. By preventing blood clots or growing, and to stop pieces of the clot from forming in the leg. It can break loose and travel through the body.

Dabigatran may cause the following side effects:

- It can increase your risk of bleeding. If you have blood in your urine (blood in your urine), see page 2.
- It can cause stomach upset, including ulcers and heartburn. If dabigatran bothers your stomach, see page 2.
- It can cause diarrhea, constipation, flatulence, and vomiting.
- It can cause bruising and nosebleeds.
- It can increase your risk of bleeding.
- It can increase your risk of bleeding.

As with any medicine, dabigatran has some risks and factors that may increase your risk of bleeding.

Dabigatran is an anticoagulant. It prevents clots from forming in your blood.

Why do I need it?

Dabigatran is an anticoagulant that helps prevent blood clots from forming in the legs.

If you have had a procedure like hip or knee replacement surgery, you may need to take dabigatran to prevent blood clots from forming in the legs.

Anticoagulants are sometimes called "blood thinners.

FACT SHEET FOR PATIENTS AND FAMILIES

Anticoagulation Therapy with Warfarin:

What is warfarin?

Warfarin (Coumadin) is an anticoagulant that is used to:

- Stop new clots from forming
- Prevent blood clots from forming in the legs.

Warfarin and other anticoagulants are sometimes called "blood thinners." However, they don’t really thin the blood. Instead, they:

- Stop the action of a certain protein your body needs to make blood clots
- Stop new clots from forming
- Keep blood clots from getting bigger so your body can dissolve them over time.

They do not break up clots that you already have.

The anticoagulants commonly used to treat atrial fibrillation are listed below. Ask your doctor or care team for a copy of the Intermountain fact sheet that describes the medicine you are prescribed.

- Apixaban (Eliquis)
- Dabigatran (Pradaxa)
- Edoxaban (Savaysa)
- Rivaroxaban (Xarelto)
- Warfarin (Coumadin)

Questions for my doctor

What is warfarin and why do I need it?

Warfarin is a type of medicine called an anticoagulant. It prevents clots from forming in your blood.

How does warfarin work?

Warfarin works by thinning your blood. By preventing blood clots from forming, warfarin can help prevent a stroke.

How do I take warfarin?

You should take warfarin 2 times a day, with or without food.

What dose to take:

How and when do I take warfarin?

You should take warfarin at the same time every day. Many healthcare providers prefer that you take it in the evening. This way, if your regular blood test shows that your warfarin is too low, you will have time to adjust your dose before it affects you.

What to do if you forget a dose:

If you forget to take a dose of warfarin, take both doses at the next time you are supposed to take it. DO NOT take more than one dose to make up for the missed dose.

What to do if bleeding occurs,

If you have bleeding, tell your healthcare provider at your next visit.

For more information about taking warfarin, see your healthcare provider’s specific instructions.

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