

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 of the upper chambers of the heart (atria). It can cause blood clots to form in the heart.

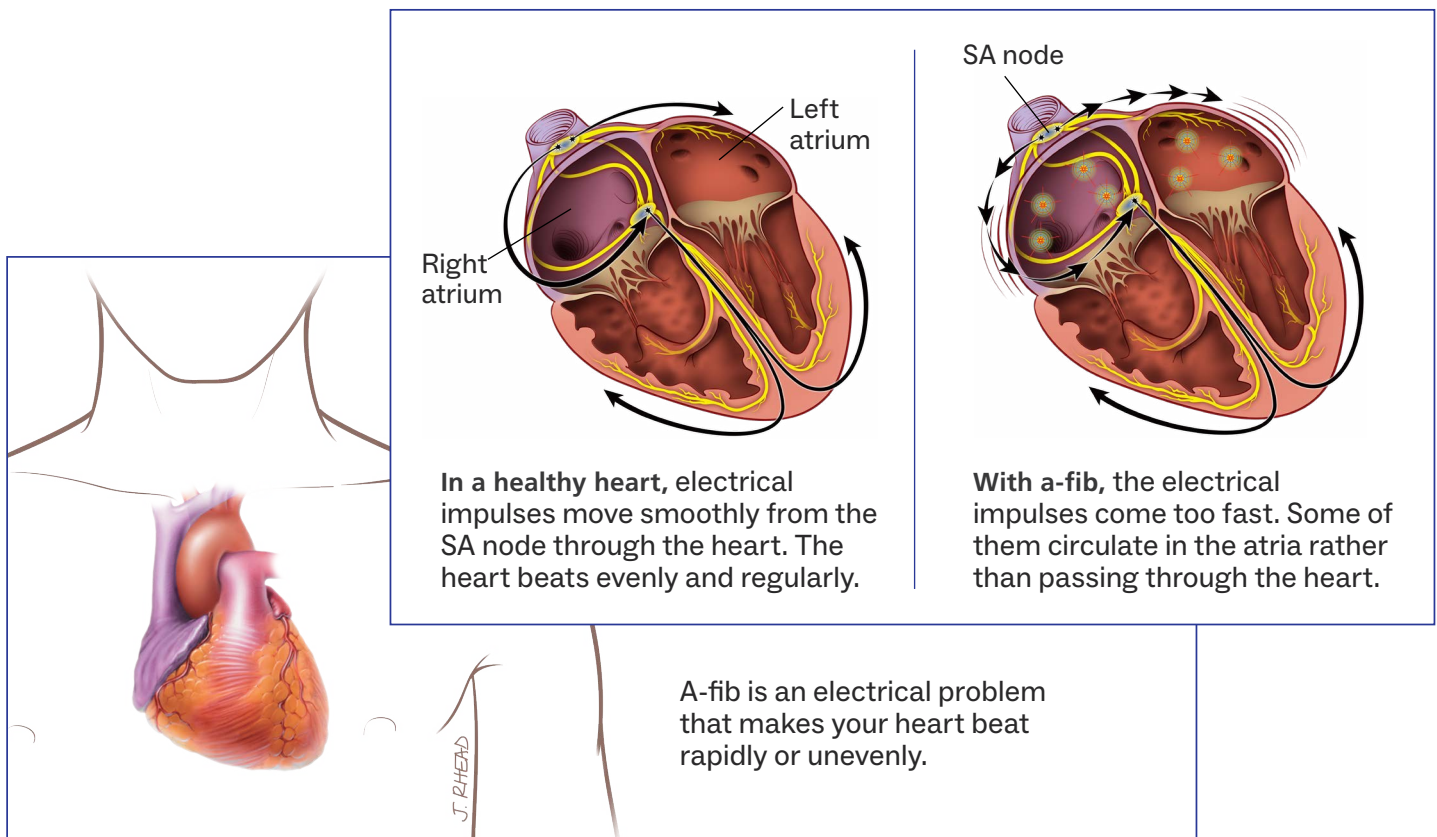
A normal heart beats regularly and evenly, about 60 to 100 times a minute. With a-fib, electrical impulses move through the heart too quickly and irregularly causing an irregular and/or rapid heart beat. (See illustration below.)

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



How is a-fib diagnosed?

To make a diagnosis, your doctor may:

- 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 2 to 5 days 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, injections, 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 anticoagulation** [an-tee-co-AG-yoo-LAY-shun] **education** and ask questions about anything you don't understand. Anticoagulants 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.

Controlling your heart rate

Even if the atria 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. They also help lower blood pressure.
- **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** [kahr-dee-oh-VUR-zhuhn]. Cardioversion is a procedure to “reset” your heart to a normal rhythm with a low energy shock. This is most often done if medicine isn't working and symptoms are severe. As part of this treatment, you may need a **TEE (transesophageal** [tranz-eh-sof-uh-JEE-uhl] **echocardiogram)**. TEE shows 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. Energy delivered through the catheter is used to make small scars. These prevent abnormal electrical signals that can cause atrial fibrillation.
 - A **maze procedure** is a surgical ablation procedure. It is done to create scar tissue to keep abnormal electrical impulses from traveling through your heart.

What can I do?

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 Drink less alcohol, or quit drinking altogether,** especially if you are taking an anticoagulant. Alcohol can interfere with this medicine. If you do drink, do not binge drink. Limit your drinking to 1 drink or less per day. (One drink = 12 ounces beer, 1.5 ounces liquor, or 5 ounces wine.) Learn more about how alcohol affects your health at: [rethinkingdrinking.niaaa.nih.gov/](#) 
- 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** if these are a known trigger for your a-fib.
- 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.

