

If you have any questions, ask your physician or nurse.

Atrial Fibrillation

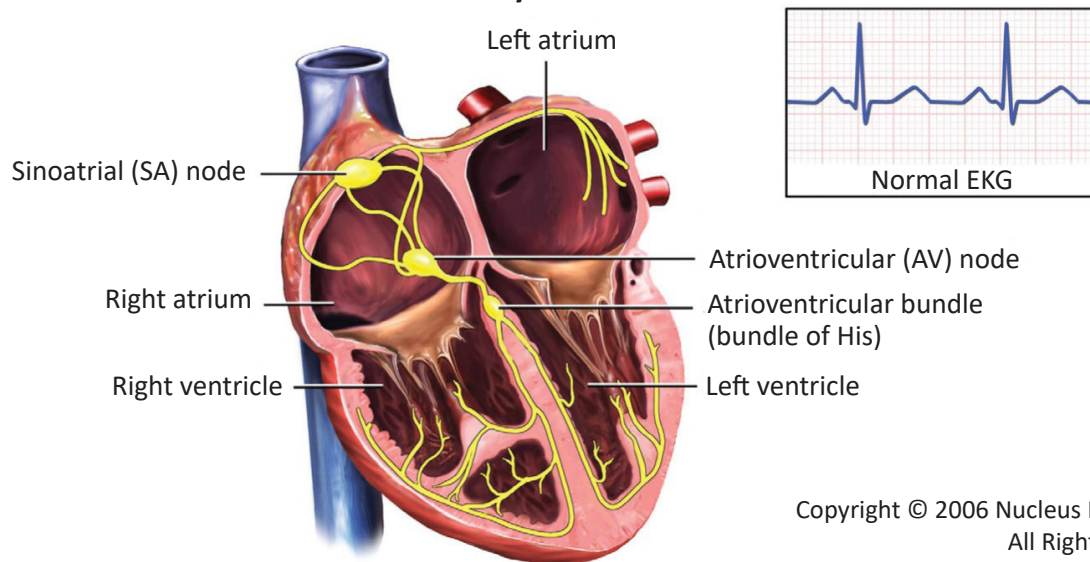
Atrial fibrillation (AFib) is an abnormal, yet common, heart rhythm. To understand AFib, it is helpful to know more about the heart.

How the heart works

The heart is a muscular pump that sends blood to the lungs and all body tissues. It has 4 chambers: 2 upper chambers (the right and the left atrium) and 2 lower chambers (the right and the left ventricle). The right atrium gets blood from the body and pumps it to the right ventricle. The right ventricle then pumps the blood to the lungs, where it gets oxygen. The left atrium gets the oxygen-rich blood from the lungs and sends it to the left ventricle. The left ventricle pumps this blood to the rest of the body.

The heart also needs a “spark plug” or electrical signal to pump. This signal starts in the sinoatrial (SA) node in the right atrium. It moves through the upper chambers (atria) to the lower chambers (ventricles), creating an electrical circuit that makes the heart pump blood to all parts of the body (Figure 1). This cycle normally repeats 60 to 100 times per minute in a regular rate and rhythm. It is the most efficient heart rhythm. An example of this is in the normal EKG in Figure 1.

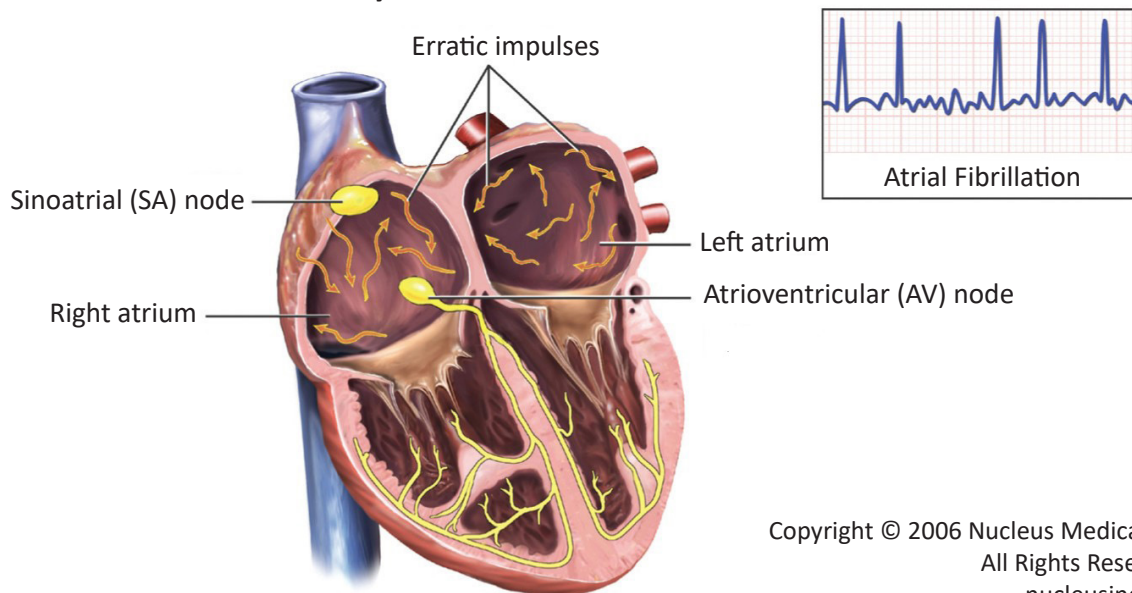
Figure 1. Normal Heart Electrical Pathway



Understanding AFib

AFib is a fast rhythm that begins in the upper chambers of the heart. The normal electrical signals become irregular and erratic (unpredictable) (Figure 2).

Figure 2. AFib erratic heart rhythm



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These impulses start in different parts of the heart and move along different paths. The atria cannot fill and empty properly. This causes the heart to pump poorly.

When the heart does not pump well, blood clots may form inside the heart. Often, these happen in the left atrial appendage, a small pocket of tissue. If the blood clot breaks free, it can travel to the brain and cause a stroke.

AFib is common and may cause:

- An increased risk of stroke and heart failure
- A need to take blood thinning medications
- A fast, irregular heartbeat (sometimes over 200 times per minute)

Causes of AFib

These factors may cause AFib:

- Unhealthy lifestyle (alcohol use, obesity)
- Lung disease
- Recent heart surgery
- High blood pressure (hypertension)
- Slow heartbeat due to SA node problems
- Heart problems, such as valve disease or coronary artery disease
- Sleep apnea
- Other diseases, such as thyroid problems
- Family history of AFib

Symptoms of AFib

AFib may lead to:

- Palpitations (racing heart)
- Shortness of breath
- Tiring easily with activity
- Swelling in the ankles and feet
- Feeling dizzy or faint

Sometimes there are no symptoms at all.

These symptoms also may be a sign of other problems. To see if AFib is present, it is important to record the heart rhythm when symptoms happen. Your physician may order a portable heart monitor for you to wear at home.

You may need to have tests to check for heart disease or problems that cause AFib. These may include an echocardiogram, nuclear imaging tests, heart angiogram, exercise stress test and electrophysiology studies. Your physician or nurse can give you more details about these tests.

Treatment for AFib

It is important to control the heart rate to prevent blood clots and stroke. These medications can help:

To control heart rate

- Beta blockers
- Calcium channel blockers
- Digoxin

To prevent stroke

- Xarelto® (rivaroxaban)
- Pradaxa® (dabigatran)
- Eliquis® (apixaban)
- Savaysa® (edoxaban)
- Coumadin® (warfarin)

Treatments to restore and keep normal heart rhythm may include:

- Lifestyle changes, as needed:
 - Weight loss
 - Exercise
 - Diagnosis and treatment of sleep apnea
 - Not drinking alcohol
- Anti-arrhythmic medicines
- Cardioversion
- Catheter ablation
- Surgical ablation and AFib surgery (Maze procedure)

Treatment to reduce the risk of stroke may include a left atrial appendage occlusion. In this procedure, the surgeon closes off this small sac in the heart. This prevents blood clots from forming in it.

Your physician will talk to you about your best options. This will depend on your history and test results.

To learn more

Your care team can give you more information about the tests and treatments for AFib.

Brochures

- Cardioversion
- Cardiac Surgery: AFib (AFib) Surgery
- Radio Frequency (RF) Ablation for AFib
- Atrial Fibrillation Therapies: Total Thoracoscopic Modified Maze and Convergent Procedures

Videos

Watch videos on the patient education closed circuit TV system or at nm.healthclips.com to learn more about AFib and how to treat it.

- Atrial Fibrillation
- Catheter Ablation for Arrhythmia