

Atrial fibrillation/flutter

Definition

Atrial fibrillation/flutter is a common type of abnormal heartbeat in which the heart rhythm is fast and irregular.

Alternative Names

Auricular fibrillation; A-fib

Causes

Normally, the four chambers of the heart (two atria and two ventricles) contract (squeeze) in a very organized way, so the heart can pump all the blood the body needs without working too hard.

The electrical impulse that signals your heart to contract begins in the sinoatrial node (also called the sinus node or SA node). This node is your heart's natural pacemaker.

- The signal leaves the SA node and travels through the two upper chambers of the heart (atria).
- Then the signal passes through another node (the AV node), and finally, through the lower chambers (ventricles).

In atrial fibrillation, the electrical impulse of the heart is not regular. The atria contract very quickly and not in a regular pattern. This makes the ventricles beat abnormally, leading to an irregular (and usually fast) pulse. As a result, the heart cannot pump as much blood as the body needs.

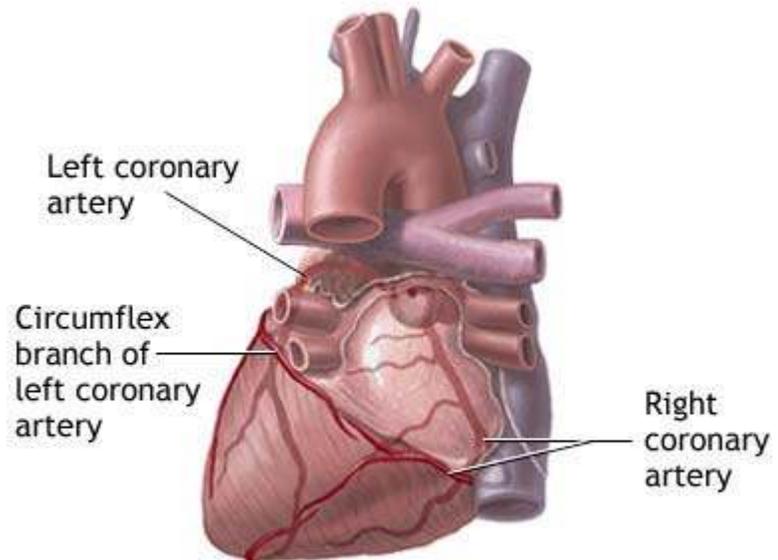
In atrial flutter, the ventricles may beat very fast, but in a regular pattern.

If the atrial fibrillation/flutter is part of a condition called sick sinus syndrome, the sinus node may not work properly. The heart rate may alternate between slow and fast beats. As a result, there may not be enough blood to meet the body's needs.

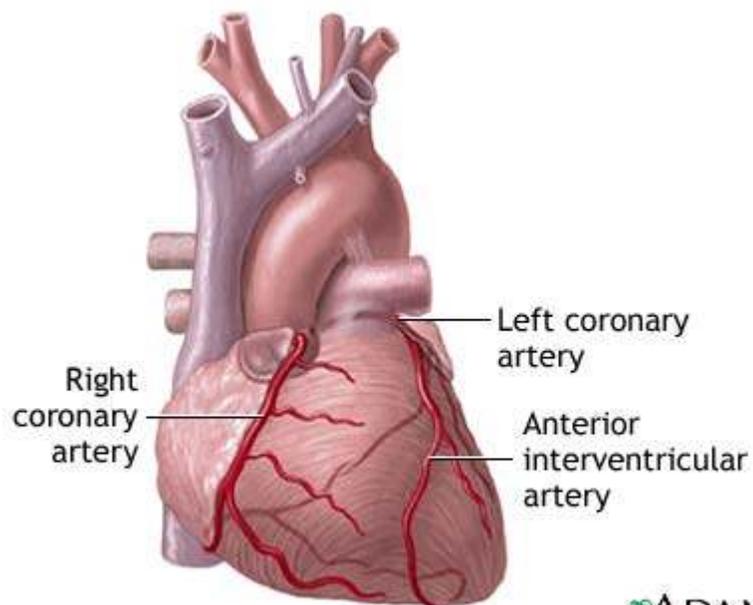
Atrial fibrillation can affect both men and women. It becomes more common as you get older.

Other causes of atrial fibrillation include:

- Alcohol use (especially binge drinking)
- Congestive heart failure
- Coronary artery disease (especially after a heart attack or coronary artery bypass surgery)



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- Heart surgery
- Heart valve disease (especially mitral stenosis and mitral regurgitation)
- High blood pressure (hypertension)
- Hypertrophic cardiomyopathy
- Medications
- Overactive thyroid gland (hyperthyroidism)
- Pericarditis

Symptoms

You may not be aware that your heart is not beating in a normal pattern, especially if it has been happening for some time.

Symptoms may include:

- Pulse that feels rapid, racing, pounding, fluttering, irregular, or too slow
- Sensation of feeling the heart beat (palpitations)
- Shortness of breath
- Confusion
- Dizziness, light-headedness
- Fainting
- Fatigue
- Loss of ability to exercise

Note: Symptoms may begin or stop suddenly. This is because atrial fibrillation may stop or start on its own.

Exams and Tests

The health care provider may hear a fast heartbeat while listening to your heart with a stethoscope. Your pulse may feel fast, irregular, or both.

The normal heart rate is 60 - 100, but in atrial fibrillation/flutter the heart rate may be 100 - 175. Blood pressure may be normal or low.

An ECG -- a test that records the electrical activity of the heart -- may show atrial fibrillation or atrial flutter.

You may need to wear a special monitor that records the heart's rhythms, called a Holter monitor (24-hour test) if your abnormal heart rhythm comes and goes.

Tests to find heart diseases may include:

- Exercise stress test
- Test that uses sound waves to create a moving picture of the heart
- Test to look more closely at the blood vessels that supply the heart muscle
- Tests to study the heart's electrical system

Treatment

Sometimes, atrial fibrillation may need emergency treatment in the hospital to get the heart back into normal rhythm. This treatment may involve electrical shocks or special drugs.

Daily medicines taken by mouth are used in two different ways:

- To slow the irregular heartbeat. These medications may include beta-blockers, calcium channel blockers, and digitalis.
- To keep atrial fibrillation from coming back. These medications may work well in many people, but they can have serious side effects. Many patients go back to atrial fibrillation, even while taking these medications.

Blood thinners such as heparin, warfarin (Coumadin), and dabigatran (Pradaxa) reduce the risk of a blood clot traveling in the body (such as a stroke). Because these drugs increase the chance of bleeding, not everyone can use them. Antiplatelet drugs such as aspirin or clopidogrel may also be prescribed. Your doctor will consider your age and other medical problems

when deciding which drug is best.

A procedure called radiofrequency ablation can be used to destroy areas in your heart that may be causing your heart rhythm problems. Cardiac ablation procedures are done in a hospital laboratory by specially trained staff. Ablation may be done:

- When medicines are not controlling the symptoms, or are causing side effects
- When the condition will become dangerous if not treated
- As a possible cure for some patients with atrial flutter

You may need a heart pacemaker after this procedure.

Outlook (Prognosis)

The disorder can usually be controlled with treatment. Many people with atrial fibrillation do very well.

However, atrial fibrillation tends to return and get worse. It may come back even with treatment.

Possible Complications

- Fainting (syncope), if atrial fibrillation and atrial flutter cause the pulse to be too quick or slow
- Heart failure
- Stroke, if clots break off and travel to the brain (drugs that thin the blood such as heparin and warfarin can reduce the risk)

When to Contact a Medical Professional

Call your health care provider if you have symptoms of atrial fibrillation or flutter.

Prevention

Follow your health care provider's recommendations for treating conditions that cause atrial fibrillation/flutter. Avoid binge drinking.

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