

# Atrial Fibrillation

## What is atrial fibrillation?

Atrial fibrillation is a change in your heart rhythm. It causes an irregular heartbeat. Sometimes the heartbeat may be very fast.

## How does it occur?

An electrical impulse in your heart starts each heartbeat. Normally, this impulse starts in the right upper chamber of the heart (the right atrium). It then moves along a pathway to the lower chambers of the heart (the ventricles). In atrial fibrillation, the electrical signal in the upper part of your heart is chaotic. The atrial muscles quiver. The electrical impulses reach the lower chambers of the heart irregularly. This can make it harder for your heart to pump efficiently. The heart may also beat very fast. Common causes of atrial fibrillation are:

- heart disease, including coronary artery disease, heart enlargement due to many years of high blood pressure, and heart failure from other causes, including congenital heart disease
- problems with a heart valve, such as damage to the mitral valve (located between the upper and lower left heart chambers), usually by rheumatic fever or mitral valve prolapse

Other causes of atrial fibrillation include:

- an overactive thyroid gland
- pneumonia
- chronic lung disease
- heavy drinking of alcohol.

Sometimes no cause for atrial fibrillation can be found.

## What are the symptoms?

Some people don't have any symptoms. When atrial fibrillation does cause symptoms, the most common ones are:

- irregular heartbeat
- fast heart rate
- dizziness and lightheadedness
- heart palpitations that feel like a sudden pounding, fluttering, or racing in the chest
- weakness
- tiredness
- shortness of breath
- chest pain or a sense of pressure in the chest.

When atrial fibrillation affects the pumping of your heart, your blood pressure may get lower than normal. You may feel lightheaded and faint. Sometimes the first symptom is a stroke caused by a blood clot that formed in the fibrillating atrium and traveled to the brain.

## How is it diagnosed?

Your healthcare provider will ask about your symptoms and examine you. You may have blood tests. The diagnosis can be confirmed with an electrocardiogram (ECG). An ECG measures the electrical activity of your heart. It shows a special pattern when you are having atrial fibrillation. Sometimes atrial fibrillation comes and goes before it can be seen on an ECG. In this case, you may have to wear a Holter monitor or event recorder to record your heart rate. The Holter monitor is a portable ECG used to detect heart rhythm problems. You may also have an echocardiogram. This test uses sound waves to make images of your heart. It is a way to check for problems with the structure of the heart, such as an abnormal mitral valve.

## How is it treated?

Treatment depends on:

- the cause of the fibrillation
- the severity of your symptoms
- your medical history.

If your provider finds a medical problem that is causing the atrial fibrillation, you will be treated for the underlying problem. If your symptoms are not severe, your provider may prescribe a medicine to keep your heart from beating too fast, such as:

- beta blockers
- digoxin
- calcium channel blockers, such as diltiazem and verapamil.

If your symptoms are more severe, you may need to have your heart put back to a normal rhythm. This may be done with:

- anti-arrhythmic medicines, such as Sotalol (Betapace) and amiodarone (Cordarone)
- a procedure called cardioversion.

If you have cardioversion, first an anesthetic will be given to you to keep you from feeling pain during the procedure. Then an electrical shock will be applied to your chest. The electrical shock will make your heart start beating normally again. If you keep having atrial fibrillation despite these treatments, your provider might suggest a procedure called cardiac ablation. This procedure delivers radio waves to the inside of the heart. It blocks abnormal electrical pathways in the heart and helps stop abnormal heart rhythms. It may be used to treat atrial fibrillation or to keep it from happening again.

## How long will the effects last?

For some people atrial fibrillation lasts just a short time and the heart goes back to a normal rhythm on its own. If you keep having spells of atrial fibrillation, medicines to control heart rate may help keep you from having more spells, or you may have them less often. In some cases you may stay in atrial fibrillation permanently but if your heart rate is controlled with medicine, the atrial fibrillation may not bother you much and you may be able to do most of your usual activities. If you have a medical problem that is causing atrial fibrillation, usually your heart rhythm will go back to normal with treatment of the underlying problem. Atrial fibrillation can cause blood clots in the heart. A blood clot could move in the

bloodstream to the neck or brain. If the clot blocks blood flow to part of the brain, it can cause a stroke. If your medical history puts you at risk for forming a blood clot, you may need to take an anticoagulant (blood thinner), such as warfarin (Coumadin), to help prevent a stroke.

## **How can I take care of myself?**

- Take your medicines as prescribed.
- If you take an anticoagulant, keep your appointments for follow-up blood tests. Make sure your healthcare provider knows about changes in your diet or medical condition. Your provider also needs to know about any other medicines you are taking, including nonprescription medicines and supplements.
- If you are not taking warfarin, ask your provider if he or she recommends that you take an aspirin every day.
- Although an occasional alcoholic or caffeinated drink is usually OK, you may find that too much alcohol or caffeine can trigger symptoms. If so, you may need to reduce or avoid alcohol or caffeine in your diet.
- Contact your healthcare provider right away if you have any new symptoms, such as falling or fainting, or any symptoms that come back.

## **How can I help prevent atrial fibrillation?**

The best prevention is to have a heart-healthy lifestyle.

- Keep a healthy weight.
- Eat a healthy diet.
- Stay fit with the right kind of exercise for you.
- Decrease stress.
- Don't smoke.
- Limit your use of alcohol.

If you have heart disease or high blood pressure, follow your healthcare provider's advice closely. @

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