



Cheyenne Cardiology  
Associates

CHEYENNE REGIONAL  
MEDICAL CENTER

# Atrial Fibrillation

Enhancing quality of life through excellence in cardiovascular care.

## Definition

Atrial fibrillation is increasingly common with advancing age. During atrial fibrillation, the heart's two upper chambers (the atria) beat chaotically and irregularly — out of coordination with the two lower chambers (the ventricles) of the heart. The result is an irregular and often rapid heart rate that causes poor blood flow to the body and symptoms of heart palpitations, shortness of breath and weakness. Most people with atrial fibrillation have an increased risk of developing blood clots that may lead to stroke.

Atrial fibrillation is often caused by changes in your heart that occur as a result of heart disease or high blood pressure. Episodes of atrial fibrillation can come and go, or you may have chronic atrial fibrillation.

## Symptoms

A heart in atrial fibrillation doesn't beat efficiently. It may not be able to pump an adequate amount of blood out to your body with each heartbeat, causing a drop in your blood pressure.

Some people with atrial fibrillation have no symptoms and are unaware of their condition until their doctor discovers it during a physical examination. Those who do have



symptoms may experience:

- Palpitations, which are sensations of a racing, uncomfortable, irregular heartbeat or a flopping in your chest
- Weakness
- Lightheadedness
- Confusion
- Shortness of breath
- Chest pain

## Causes

Abnormalities or damage to the heart's structure is the most common cause of atrial fibrillation. Diseases affecting the heart's valves or pumping system are common causes, as is long-term high blood pressure. However, some people who have atrial fibrillation don't have underlying structural heart disease, a condition called lone atrial fibrillation. In lone atrial fibrillation, the cause is often unclear. Serious complications are usually rare in lone atrial fibrillations.

Possible causes of atrial fibrillation include:

- High blood pressure
- Heart attacks
- Abnormal heart valves
- Congenital heart valves
- An overactive thyroid or other metabolic imbalance
- Exposure to stimulants, such as medications, caffeine or tobacco, or to alcohol

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- Sick sinus syndrome — this occurs when the heart's natural pacemaker stops functioning properly
- Emphysema or other lung diseases
- Previous heart surgery
- Viral infections
- Stress due to pneumonia, surgery or other illnesses
- Sleep apnea

### Resetting the rhythm

Ideally, to treat atrial fibrillation, the heart rate and rhythm are reset to normal. This can be accomplished in some cases, depending on the underlying cause of atrial fibrillation and how long you've had it. To correct atrial fibrillation, doctors may be able to reset your heart to its regular rhythm using a procedure called cardioversion. Cardioversion can be done two ways:

- Cardioversion with drugs. This form of cardioversion uses medications called anti-arrhythmics to help restore normal rhythm. Depending on your heart condition, your doctor may recommend trying intravenous or oral medications to return your heart to normal rhythm. This is often done in the hospital with continuous monitoring of your heart rate. If your heart rhythm returns to normal, your doctor often will prescribe the same anti-arrhythmic of a similar one long term to try to prevent recurrent spells of atrial fibrillation.
- Electrical cardioversion. In this brief procedure, an electrical shock is delivered to your heart through paddles or patches placed on your chest. The shock stops your heart's electrical activity for a split second. When your heart begins again, the hope is that it

resumes its normal rhythm. The procedure is performed under anesthesia.

Before undergoing cardioversion, you may be given a blood-thinning medication, such as warfarin (Coumadin), for several weeks to reduce the risk of blood clots and stroke. Alternatively, you may undergo transesophageal echocardiography — a test to exclude the presence of a blood clot — just before cardioversion. In transesophageal echocardiography, a tube is passed down your esophagus and detailed ultrasound images are made of your heart. Unless the episode of atrial fibrillation lasted less than 24 hours, you will require warfarin for at least four to six weeks after cardioversion to prevent a blood clot from forming even after your heart is back in normal rhythm.



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