



Pacific Cardiovascular Associates Medical Group

Atrial Fibrillation (Afib)

What is atrial fibrillation?

Atrial fibrillation, often referred to as AFIB, is the most common type of arrhythmia. An arrhythmia is a problem with the rate or rhythm of the heartbeat. During an arrhythmia, the heart can beat too fast, too slow, or with an irregular rhythm. Atrial fibrillation occurs if rapid, disorganized electrical signals cause the heart's two upper chambers—called the atria - to fibrillate. The term "fibrillate" means to contract very fast and irregularly. Because the electrical impulses are so fast and chaotic, the atria cannot contract and/or squeeze blood effectively into the ventricle.

Instead of the impulse traveling in an orderly fashion through the heart, many impulses begin at the same time and spread through the atria, competing for a chance to travel through the atrioventricular (AV) node. The AV node limits the number of impulses that travel to the ventricles, but many impulses get through in a fast and disorganized manner. The ventricles contract irregularly, leading to a rapid and irregular heartbeat. The rate of impulses in the atria can range from 300 to 600 beats per minute.

What are the risks of Atrial Fibrillation?

Fifteen percent of all strokes occur due to atrial fibrillation. Strokes can happen in people with AFIB due to sluggish blood flow in the upper chambers of the heart, which may allow a clot to form. Clots can potentially travel to the brain, causing a stroke. A stroke is the biggest risk of having AFIB and is the reason that a blood thinner is often ordered to help minimize this risk.

What are the symptoms of atrial fibrillation?

You may have atrial fibrillation without having any symptoms. If you have symptoms, they may include:

- **Heart palpitations** - Sudden pounding, fluttering or racing sensation in the chest
- **Lack of energy** or feeling over-tired
- **Dizziness** - Feeling light-headed or faint
- **Chest discomfort** - Pain, pressure or discomfort in the chest
- **Shortness of breath** - Having difficulty breathing during normal activities and even at rest

What are the causes of atrial fibrillation?

Despite over 3 million Americans diagnosed with atrial fibrillation the cause is usually unknown. Generally, a blood test will be ordered to look for thyroid disease, a chest X-ray to look for lung disease, and an echocardiogram to look for heart valve disease will help eliminate causes. Risk factors that contribute to atrial fibrillation include coronary heart disease, high blood pressure, obesity, diabetes, sleep apnea and binging on alcohol.

How is atrial fibrillation diagnosed?

The most commonly used tests to diagnose atrial fibrillation include:

- **Electrocardiogram (ECG or EKG):** The ECG draws a picture on graph paper of the electrical impulses traveling through the heart muscle. An EKG provides an electrical “snapshot” of the heart.
- For people who have symptoms that come and go, a special monitor may need to be used to "capture" the arrhythmia.
 - **Holter monitor:** A small external recorder is worn over a short period of time, usually one to three days. Electrodes (sticky patches) are placed on the skin of your chest. Wires are attached from the electrodes to the monitor. The electrical impulses are continuously recorded and stored in the monitor. After the monitor is removed, a technician uses a computer to analyze the data to evaluate the heart’s rhythm.
 - **Portable event monitor:** A monitor that is worn for about a month for patients who have less frequent irregular heartbeat episodes and symptoms. Electrodes (sticky patches) are placed on the skin of your chest. Wires are attached from the electrodes to the monitor. The patient presses a button to activate the monitor when symptoms occur. The device records the electrical activity of the heart for several seconds. The patient then transmits the device’s recorded information over a telephone line to the doctor’s office for evaluation. The portable event monitor is very useful in determining what heart rhythm is causing your symptoms.
 - **Transtelephonic monitor:** When you develop symptoms of atrial fibrillation, a strip of your current heart rhythm can be transmitted to your doctor’s office over the telephone, using a monitor with two bracelets or by placing the monitor against your chest wall.

Can atrial fibrillation be cured?

Ablation therapy is a potential cure for atrial fibrillation but even if it does not cure the disease, it may reduce the need for medication. Catheter ablation for atrial fibrillation is recommended when other treatments are not working. During the procedure, a catheter is inserted in the heart through a blood vessel in the arm or leg. Radio wave energy or a freezing solution is sent through the catheter to destroy the area inside the heart where the abnormal rhythm is generated. It is not uncommon that follow up ablations need to be performed in order to ‘ablate’ the areas generating the arrhythmia.

Can I still live a healthy life with atrial fibrillation?

Of course. You may need to avoid obvious triggers, like caffeine, alcohol, and other stimulants. Additionally, talk to your doctor about specific diet and exercise guidelines, and ask if you should refrain from taking any over-the-counter medications and supplements. Stick to follow up appointments so your atrial fibrillation can be properly monitored, and call your doctor’s office right away if you notice any changes in your symptoms or side effects from medications. Knowing the facts and working closely with your cardiologist is the best way to live and full and active life with atrial fibrillation.