

Living with Atrial Fibrillation

Understanding Atrial Fibrillation

An estimated 2.2 million Americans are living with atrial fibrillation (AF). That makes it the most common heart rhythm abnormality in the U.S.

AF itself usually isn't life threatening. But it can lead to other serious problems. These include chronic fatigue, congestive heart failure and stroke.

The good news is that AF can be treated and controlled with help from your healthcare provider. If you've been diagnosed with AF, careful management can help reduce your risk of major health problems.

The Heart and How It Works

Your heart is an amazingly coordinated system. Muscles work to pump blood throughout the body, and an electrical system tells the heart when to beat.

The Heart as a Pump

The heart has four chambers. The two top ones are the atria. The right atrium receives blood from the body. The left atrium receives blood from the lungs.

The ventricles are the main pumping chambers. They are below the atria. The right ventricle pumps blood to the lungs, where it's refreshed with oxygen. The left ventricle pumps oxygenated blood all through the body.

Electrical Cells Signal the Pump

The sinus node is a group of heart cells in the wall of the right atrium. It acts as the heart's pacemaker. Electrical impulses sent from the sinus node signal the heart muscle to contract. This begins each heartbeat. These impulses follow conduction pathways to travel across the heart muscle in an orderly fashion. This causes the heart to beat steadily.

Each electrical impulse normally spreads over the atria first. These chambers contract, which helps blood flow into the ventricles. Next, the electrical impulse spreads to the ventricles, causing them to contract and pump blood out to all the body's cells.

AF: A Problem with the Heart's Rhythm

With AF, your heart's electrical impulses lose their regular rhythm. The impulses no longer come from the sinus node. Instead, they come from other parts of the atria. When someone is in AF, they have an irregular heartbeat. During AF, the impulses are very rapid (more than 300 beats per minute) and uneven. In response to these impulses, the atria contract quickly and unevenly. This means they aren't able to pump blood the way they should.

Sometimes rapid AF impulses cross to the ventricles. This causes them to beat rapidly and irregularly as well. However, this ventricular rate is much slower than the atrial rate. It usually ranges from 120 to 160 beats per minute.

AF and Stroke

During AF, some blood may not be pumped from the atria into the ventricles efficiently. Blood that's left behind can pool in the atria and form blood clots. If a blood clot leaves the heart and enters the bloodstream, it can travel to your brain, block an artery or blood vessel in the brain and cause a stroke.

The risk of stroke is about five times higher in people with AF (independent of other risk factors). Your chances of having a stroke are even higher if you're over age 65.

What Causes Atrial Fibrillation

Often, the cause of AF is unknown. But certain factors can make you more likely to develop it. AF often affects people who have coronary heart disease or who've had a heart attack. Other conditions linked to AF include: *High blood pressure *Recent heart surgery *Valvular heart disease *Inflammation of the heart muscle (myocarditis) or lining of the heart (pericarditis) *Recent heart surgery *Congenital heart defect (one present at birth) *Overactive thyroid gland *Acute or chronic lung disease

Older people are more likely to have AF than younger people. In fact, the risk of AF increases with age. Atrial fibrillation is the most common heart arrhythmia in persons over the age of 65. Diabetes, excessive alcohol use and stimulant drug use are other factors that increase the risk of AF.

Symptoms of Atrial Fibrillation

Some people who have AF don't feel a thing. Others notice changes in their heartbeat right away. Many people feel a fast, uncomfortable, irregular heartbeat. It's sometimes described as a "flopping" feeling in the chest. Dizziness, sweating and chest pain or pressure also can occur, particularly when the ventricular rate is rapid.

Treating Atrial Fibrillation

Treating AF correctly is the best way to reduce your stroke risk. Your treatment depends on the underlying cause, your own symptoms, and your level of disability. Your healthcare provider will work with you on the best way to treat your AF. But all AF treatment plans should include three goals: *Control your ventricular rate within a relatively normal range *Restore a normal heart rhythm, if possible *Prevent blood clots from forming in the atria.

Controlling your Heart Rate

Your ventricles are your heart's main pumping chambers. Your ventricles respond to AF by beating rapidly and irregularly. That causes the racing or "flopping" feeling in your chest. To control your heart, your doctor may prescribe medications to slow down the rate at which the ventricles contract. These medications may include a beta-blocker, a calcium channel blocker, or digitalis. Controlling the ventricular rate will: *Normalize your heart rate *Decrease your heart's workload *Reduce your discomfort *Prevent congestive heart failure.

Restoring the Proper Rhythm

To restore normal rhythm, the problem electrical signals must be stopped. Your doctor may recommend doing this with medication. Another option is to apply an electrical shock to the chest after you're given a short

acting anesthetic to put you to sleep for a few minutes. Sometimes a combination of the medication and electrical shock is used.

Preventing Clots with Medication

To prevent blood clots, your healthcare provider will likely prescribe medication. Warfarin, Pradaxa and aspirin are the most commonly used. They reduce the blood's ability to clot (coagulate).

Warfarin, an anticoagulant (blood thinner), is the most effective drug for preventing blood clots. Blood thinners can prevent stroke in most patients with AF.

Pradaxa is a prescription blood-thinning medicine used to reduce the risk of stroke and blood clots in people with atrial fibrillation not caused by a heart valve problem. Pradaxa lowers the chance of blood clots forming in your body.

Aspirin has an antiplatelet effect. It makes blood platelets less likely to stick together and form clots.

Your personal stroke risk determines the type and dose of medications you'll be prescribed. If the dose is incorrect, blood thinners can cause abnormal bleeding or fail to protect you against clot formation.

To be sure you're getting the right amount of medication, your healthcare provider will do a test called a Prothrombin Time (Protime or PT). The results of the test are called an "INR" number. Checking the INR helps to keep your blood clotting at a safe and effective level. You should have an INR test at least once a month.

Medication Precautions

Call your healthcare provider right away if you have any unusual bleeding or bruising while taking these medications. If you forget to take your daily warfarin dose, DON'T take an extra one to catch up! Follow your healthcare provider's directions about what to do if you miss a dose.

Switching from one form of warfarin to another (such as going brand name to generic) may change your PT response. Be extra careful. Even small variations in the amount of the dose can cause problems.

Always tell your doctor, dentist and pharmacist that you take warfarin. This is especially important before you start taking a new medication or have any procedure that can cause bleeding.

Discuss any new medications with your healthcare provider. Many drugs change the effects of warfarin on the body. Even vitamins will change warfarin's effect.

All these medications have pluses and minuses in preventing strokes due to AF. But the benefits outweigh the potential risks in terms of safeguarding your health.

Other Treatment Procedures

Other treatments may control or stop the electrical impulses that cause AF.

Electrical Cardioversion

Electrical cardioversion is a procedure that delivers a small electric shock to the heart from outside the chest wall. This stops the heart's electrical activity briefly. The normal rhythm produced by the sinus node can

then take over. Cardioversion can treat AF, but it is not a cure. Your healthcare provider can tell you if this procedure might help you.

Catheter Ablation

To control the ventricular rate during AF, a catheter (thin wire) is inserted through a blood vessel to the heart. It delivers radiofrequency energy to destroy abnormal electrical cells. This is called a catheter ablation. It

prevents the ventricles from beating too fast. If a catheter ablation is done, a permanent pacemaker will be implanted to maintain a normal heart rate.

The ablation procedure will control the ventricular rate and reduce your symptoms. However, your atria will still have AF. You'll still have an ongoing risk for blood clotting and stroke. To manage this, you'll need to take anticoagulants indefinitely.

Surgery

Another alternative treatment for AF is a surgery called to Maze Procedure. Incisions are made in the atria during open heart surgery. Then, the incisions are sewn up. The scar tissue left behind blocks AF's abnormal electrical paths.

What you can do to Reduce Your Risk

The best thing you can do is to follow your treatment plan and take things one day at a time.

Take Your Medication

Take all medications exactly as directed. Managing your AF required a steady amount of each medication in your body. That's why it's critical to follow your healthcare provider's instructions.

Live a Healthy Lifestyle

Make healthy lifestyle choices. Ask your healthcare provider for smart eating guidelines. Don't smoke. If you do smoke, quit now. Choose a physical activity program that you can stick to and enjoy.

Ask for the Support You Need

Your symptoms aren't easy for others to see. It may be hard for family, friends or employers to understand how AF affects your health and daily life.

Explain your condition, treatment plan and any lifestyle changes to your friends and family. Ask for their encouragement and support. This can help you live your life with as few disruptions as possible.

Reference: American Heart Association booklet