

Why Treating Your Atrial Fibrillation Is So Important

Atrial fibrillation (Afib, AF) is the most commonly diagnosed abnormal heart rhythm (arrhythmia) in the U.S.:¹

- **8 million** people in the U.S. have Afib¹
- **1.2 million** people in the U.S. are diagnosed with Afib each year¹
- **1 in 4** adults will develop Afib in their lifetime²
- **33 million** people around the world have Afib³

Atrial fibrillation is an abnormal heart rhythm caused by erratic electrical signals in the heart. A normal heart rhythm creates regular electrical signals that travel through the heart. The signals are essential for the heart to beat in a steady, rhythmic way. This allows blood to be pumped to all parts of the body. Sometimes the electrical signals become irregular, and the heart beats abnormally.

Atrial fibrillation is also called Afib or AF. If not properly treated, it can grow worse over time and possibly damage your heart. Atrial fibrillation can also lead to health problems:

5x increase in stroke risk⁴

5x increase in heart failure development⁵

Atrial fibrillation also leads to a higher risk of:⁶

- Chronic fatigue
- Decreased activity level
- Decline in quality of life

It's best to have atrial fibrillation treated **before** it progresses and causes other health problems.⁷

Even after people develop other heart problems, there is hope. When atrial fibrillation is successfully treated it can:

- Reverse the stretching of the left atrium⁷
- Improve heart function overall⁷
- Improve your symptoms⁸
- Reduce the number of heart medications you need⁷

Causes of Atrial Fibrillation

Several medical conditions and risk factors might affect the normal function of the heart, leading to an irregular heart rhythm.

Medical Conditions

Conditions that may cause people to develop atrial fibrillation include:⁹

- **Diabetes**—The glucose (blood sugar) imbalance that occurs with diabetes can directly affect the tissues of the heart.

- **Obesity**—This puts a person at higher risk for atrial fibrillation.
- **Sleep apnea**—When a person is awakened by lack of oxygen from sleep apnea, it stresses the heart. It can also cause chemical changes inside the heart.
- **Overactive thyroid gland**—When the thyroid is too active, it increases the heart rate.

Risk Factors

Doctors have also identified risk factors that can lead to atrial fibrillation:⁹

- Heart attacks
- Heart failure
- Heart valve disease
- Coronary artery disease
- High blood pressure
- Aging
- Family history of atrial fibrillation

Many other factors that can lead to atrial fibrillation, listed below,⁹ are within your control. Talk to your health care provider about how to lead a healthy lifestyle.

- **Smoking**—The risk seems to increase for long-term smokers. But the risk lowers if you quit.
- **Stress**—Emotional stress, including panic disorders, can also put someone at higher risk of atrial fibrillation.
- **Alcohol**—Alcohol consumption, and especially binge drinking, raises a person's risk.
- **Caffeine**—Caffeine increases the heart rate, which can trigger atrial fibrillation.¹⁰

Trigger Areas for Atrial Fibrillation

There are 3 areas of the heart where atrial fibrillation normally starts. The trigger points are:

- The base of the pulmonary veins (PV)
- The posterior (back) wall
- The left atrial appendage (LAA)

The Stages of Atrial Fibrillation—and How It Affects Your Health

Early Stage of Atrial Fibrillation

Paroxysmal Afib symptoms include:

- Palpitations
- Fluttering feeling in the chest
- Rapid or irregular heartbeat

If not effectively treated, paroxysmal Afib may progress to more advanced stages.

Advanced Stages of Atrial Fibrillation

- Persistent Afib
- Long-standing persistent Afib

The symptoms for these stages are listed below.

Long-standing persistent Afib affects approximately:¹

- **45%** of all AFib patients
- **3.5 million** people in the United States

Some people may not know that these symptoms result from atrial fibrillation. They are only diagnosed when they go to their physician.

How Atrial Fibrillation Impacts Your Health

Atrial fibrillation causes physical changes to the structure and shape of the heart.

Scarring: Atrial fibrillation can lead to scarring of the atrial tissue.

Stretching: Eventually the heart tissue becomes stretched, too. As the walls of the heart are stretched, the heart muscle becomes weaker.

Stiffening: The heart muscle gets stiffer, so that it's harder for the heart to pump properly.

Atrial fibrillation also leads to a higher risk of:⁶

- Stroke
- Heart failure
- Dementia
- Chronic fatigue
- Decreased activity level
- Decline in quality of life
- Sudden death

Treatments for Atrial Fibrillation

Treatments vary, depending on the stage of atrial fibrillation. Because undertreated atrial fibrillation can progress to more advanced stages, it is very important to talk with your healthcare provider about proper treatment.

Lifestyle Changes

- Make exercise and healthy food choices a part of your daily life.
- If needed, get a sleep study to find out if you have sleep apnea and need CPAP therapy.

Medications

Medications can help a person in different ways:

- Medications can treat blood pressure, diabetes, or an overactive thyroid.
- Blood thinners can reduce the risk of stroke.
- Rate control medications slow the heartbeat.
- Rhythm control medications help control the heart rhythm.

Cardioversion

Cardioversion is done at a hospital or clinic. This therapy delivers a controlled electric shock to the outside of the chest to restore a normal heart rhythm.

If your symptoms continue and are not controlled by medications, your doctor may consider ablation therapy.

Different Types of Ablation

Ablation creates lesions, or barriers, on the heart tissue in an effort to stop the erratic electrical signals that cause atrial fibrillation. There are 2 types of ablation:

- **Endocardial radiofrequency (RF) ablation:** Treats the inside the heart—it is most often used to treat paroxysmal atrial fibrillation, an earlier stage of Afib.
- **Epicardial ablation:** Treats the outside the heart

Hybrid AF™ Therapy combines both types of ablation. It creates lesions inside (endocardial RF) and outside (epicardial) of the heart. Hybrid AF Therapy is used to treat long-standing persistent atrial fibrillation.

The goal of an ablation is to stop the atrial fibrillation, or to make the episodes shorter and less frequent.

Hybrid AF Therapy

If you have long-standing persistent atrial fibrillation, your doctor might recommend Hybrid AF Therapy.

Step 1 of Hybrid AF Therapy: Lesions on the Outside of the Heart

Epicardial (outside of the heart) lesions target areas of the heart that cannot be reached from the inside of the heart.

- The doctor makes a small 2–3 cm incision under the breastbone.
- Once the doctor has access to the heart, lesions are created across the posterior (back) wall.
- These epicardial lesions overlap to create a barrier to the erratic electrical signals that cause atrial fibrillation.

Step 2 of Hybrid AF Therapy: Lesions on the Inside of the Heart

Endocardial (inside of the heart) lesions target areas of the heart that are difficult to reach from the outside.

- A second doctor makes a small incision in the femoral vein in the upper thigh. This allows access to your heart through the vein.
- The doctor looks at an electrical "map" of your heart. It can show any remaining abnormal electrical signals after your first procedure.
- The doctor then creates lesions at the pulmonary veins and at any areas that still have abnormal electrical activity.

Your hospital stay will be typically two to three days. Your doctor will:

- Prescribe medication to prevent inflammation soon after the procedure
- Tell you when you can resume taking needed heart medications
- Tell you if you may be able to stop taking certain heart medications

Before you leave the hospital, you will be given a card with important information about your procedure and medications. It also tells you whom to call if you have questions. Keep this in your wallet or purse.

Your healthcare team will tell you when you can return to your daily activities.

The goal of ablation treatment for atrial fibrillation is to stop the irregular heart rhythm or reduce Afib episodes, so that they are shorter and less frequent. This helps the heart return to a more normal size, pump better and improve its function overall.⁷

Is Hybrid AF Therapy Right for You?

It may be, but only a health care provider can determine the best treatment for you.

When Hybrid AF Therapy effectively stops atrial fibrillation, there can be other important benefits to the heart:

- Reverse the stretching of the left atrium⁷
- Improve heart function overall⁷
- Improve your symptoms⁸
- Reduce the number of heart medications you need to take⁷

Talk to your doctor about how to find the right treatment for your stage of atrial fibrillation.

Sources

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Hybrid AF Therapy is for the treatment of long-standing persistent atrial fibrillation.

Risk Information: This procedure is not recommended for patients with Barrett's Esophagitis, presence of left atrial thrombus (clot), a systemic infection, or an active infection local to the surgical site at the time of surgery (i.e. active endocarditis).

Potential procedural complications include, but are not limited to: Pericardial effusion, pericarditis, infection, cardiac tamponade, pulmonary vein stenosis, vessel injury, tissue perforation, excessive bleeding, phrenic nerve injury, left atrial rupture, esophageal fistula,

heart attack, new arrhythmias, thromboembolic complication, stroke/TIA/neurologic complication, complete heart block requiring permanent pacemaker implantation, serious skin burn, a buildup of fluid around your lungs, or death.

This information is not comprehensive. Talk to your health care provider to obtain the FDA-approved product labeling or visit www.AtriCure.com.

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