

# Atrial Fibrillation

## Is This Just Irregular Heart Beat or Can I Have a Stroke? Is There a Cure?? Maybe, with Ablation.



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**A**trial Fibrillation — also known as AFib or AF — is the most common arrhythmia. It affects more than 2.5 million American adults and 4.5 million people living in the European Union, and accounts for approximately one-third of hospitalizations for cardiac rhythm disturbances.

It is characterized by a rapid and irregular heartbeat caused when the top chambers of the heart (the atria) quiver (fibrillate) erratically, sometimes faster than 200 times per minute.

AFib can also increase the risk of stroke fivefold. It is estimated to be responsible for 88,000 deaths and \$16 billion in additional costs to the U.S. healthcare system. As the world population ages, the prevalence of AFib is projected to increase. In fact, in the next 30-40 years, the number of people diagnosed with AFib in the U.S. is expected to more than double. Here's how patients have described their experience:

### AFib Feels Like...



*"My heart flip-flops, skips beats, and feels like it's banging against my chest wall, especially if I'm carrying stuff up my stairs or bending down."*

### What happens during AF?

Atrial fibrillation (AF) is the most common type of irregular heartbeat. Normally, your heart contracts and relaxes to a regular beat. In atrial fibrillation, the upper chambers of the heart (the atria) beat irregularly (quiver) instead of beating effectively to move blood into the ventricles. About 15–20 percent of people who have strokes have this heart arrhythmia.

### Additional common symptoms of atrial fibrillation

Sometimes people with AF have no symptoms and their condition is only detectable upon physical examination. Still, others may experience one or more of the following symptoms:

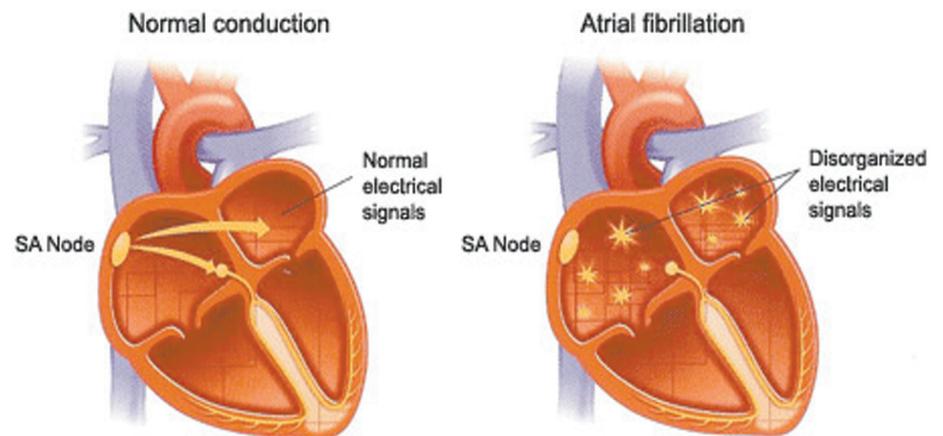
- Rapid and irregular heartbeat
- Fluttering or "thumping" in the chest
- Dizziness
- Shortness of breath and anxiety

- Weakness
  - Faintness or confusion
  - Fatigue when exercising
  - Sweating
  - \*Chest Pain or pressure
- \*Chest pain or pressure is a medical emergency. You may be having a heart attack. Call 9-1-1 immediately.*

occur every day. These symptoms are very unpredictable and often can turn into a permanent form of atrial fibrillation.

- **Persistent AF** is defined as an irregular rhythm that lasts for longer than 7 days. This type of AF will not return to normal sinus rhythm on its own and will require some form of treatment.
- **Permanent AF** occurs when the condition lasts indefinitely and can no longer be controlled with medication.

Over a period of time, paroxysmal fibrillation may become more frequent and longer lasting, sometimes leading to permanent or chronic AF. All types of AF can increase your risk of stroke. Even if you have no symptoms at all, **you are nearly 5 times more likely to have a stroke than someone who doesn't have atrial fibrillation.**



### Are there different types of AF? Do they have different symptoms?

The symptoms are generally the same; however the duration of the AF and underlying reasons for the condition help medical practitioners classify the type of AF problems.

- **Paroxysmal fibrillation** is when the heart returns to a normal rhythm on its own. People who have this type of AF may have episodes only a few times a year or their symptoms may

### Know your treatment goals

The treatment goals of atrial fibrillation (AF) start with a proper diagnosis through an in-depth examination from a physician. The exam usually includes questions about your history and often an EKG or ECG. Some patients may need a thorough **electrophysiology study**.

### Prevention and Risk Reduction

After a patient is diagnosed with atrial fibrillation, the ideal goals may include:



- Restoring the heart to a normal rhythm
- Reducing an overly high heart rate
- Preventing blood clots
- Managing risk factors for stroke
- Preventing additional heart rhythm problems
- Preventing heart failure

### 1. How will I prevent stroke?

Depending on your risk, you will likely either need aspirin or warfarin or another type of anticoagulation medication.

### 2. Do I need aspirin or warfarin therapy?

Are there additional lifestyle modifications important for stroke prevention?

What is my C.H.A.D.S. risk?

- Congestive heart failure
- Hypertension
- Age (75 or greater)
- Diabetes
- Stroke (prior episode)

### 3. Are there options to control my heart rate and this irregular heart rhythm?

Based on your past medical history and risk for having a future stroke, there are several options for you and your healthcare provider to discuss in order to manage your AF.

### Medications for atrial fibrillation (AF)

Medications are often prescribed to prevent and treat blood clots which can lead to a stroke. The longer you have untreated AF, the less likely it is that normal rhythm can be reestablished.

Medication options may include blood thinners, rate controllers, and rhythm controllers. Lists included here are not intended to be comprehensive, and we encourage you to contact our office to keep up with the newest in AF medication options.

### Preventing Clots with Medication (antiplatelets and anticoagulants)

Drugs such as blood thinners are given to patients to prevent blood clot formation or to treat an existing blood clot. Examples include:

- Aspirin
- Warfarin
- Other FDA approved anticoagulants

### Important Precautions when taking anti-clotting medications

- Call your healthcare provider right away if you have any unusual bleeding or bruising

- If you forget to take your daily anticoagulant 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.
- Always tell your doctor, dentist and pharmacist that you take one of these medicines.
- Many drugs change the effects of these agents on the body. Even vitamins (and some foods) could change the effect.

### Heart Rate Controlling Medication

- **Beta blockers, Calcium blockers and Digoxin** are drugs used to slow the heart rate. Most people can function and feel better if their heart rate is controlled.

Some examples may include:

- Carvedilol
- Metoprolol
- Atenolol
- Diltiazem
- Verapamil

### Heart Rhythm controlling Medications

Once your heart rate is under control, the next management consideration is usually treating the abnormal heart rhythm with medications to restore the heart rhythm to normal. Your healthcare provider will most likely want to monitor progress closely.

Examples may include

- Flecainide (Tambocor®),
- Propafenone (Rythmol®)
- Amiodarone (Cordarone® or Pacerone®)
- Sotalol (Betapace)
- Dronedarone (Multaq)

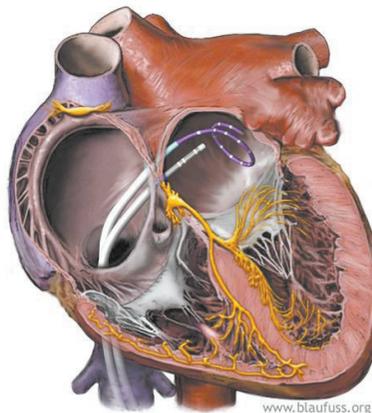
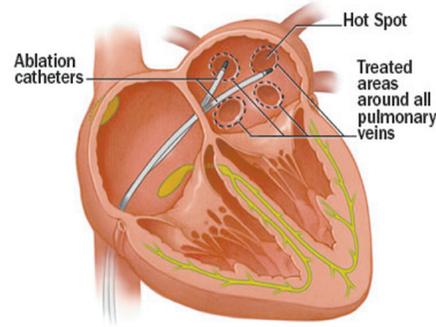
### The decision to use electrical cardio version

Your provider may recommend a Transesophageal Echocardiogram (TEE) as a first step. The TEE procedure involves swallowing a small ultrasound device that allows the healthcare team to look inside your heart atria for blood clots.

### Radiofrequency Ablation or Catheter Ablation

Catheter ablation is an atrial fibrillation treatment that is done by a specialized cardiologist, called an **Electro physiologist (EP)** who deals with irregular heartbeats (arrhythmias).

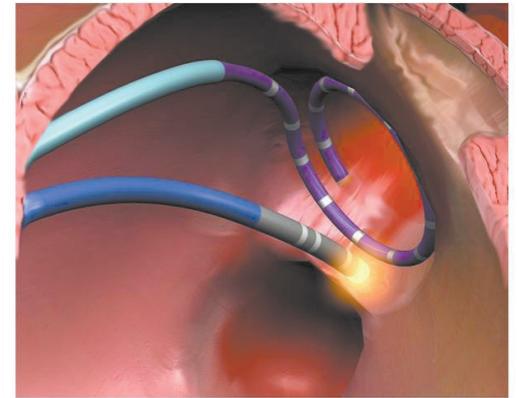
It is a minimally-invasive procedure that is generally less invasive than surgery. It is a commonly-used treatment for atrial fibrillation as well as other cardiac arrhythmia. Like other atrial fibrillation treatments, **it is most successful in treating paroxysmal atrial fibrillation**, but much progress has been made in treating persistent and long standing persistent as well.



normal rhythm. This minimally invasive procedure usually has a short recovery period. Patients are generally placed on a short course of anti-arrhythmic drugs while the procedure takes full effect.

Common types of ablation for AF include:

- **Pulmonary vein isolation ablation (PVI ablation or PVA).** In some AF patients, fibrillation is triggered by extra electrical currents in the pulmonary



veins. During this procedure, the catheter tip is used to destroy the tissue that is sending the extra currents and, in most cases, normal heart rhythm returns.

- **AV node ablation with pacemakers.** In other AF patients, the trigger for their AF occurs in the AV node (the place where the electrical signals pass from the atria to the ventricles). The catheter is placed near the AV node and a small area of tissue is destroyed. A pacemaker is then implanted to restore and maintain the heart's normal rhythm.

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Ablation is used for cardiac arrhythmias when long-term medications or electrical cardio version are either not preferred or were not effective. Or when Patient prefers not To take any Medications. Before ablation surgery, electrical mapping of the heart is performed. An electrically sensitive catheter is used to map the heart muscle and the origins of the "extra" electrical activity throughout the heart. The map tells the physician which areas of the heart are creating problematic electric signals that interfere with the proper rhythm. After a single procedure, more than 60-70% of patients with an otherwise normal heart can enjoy freedom from arrhythmias according to studies that have followed patients typically for one year. With two or more procedures, the efficacy can be as high as 80-90% in other recent case series

**Catheter ablation is the only cardiac procedure that can be correctly called curative.** (No, stents are not curative.)

### How is an ablation performed?

A catheter (thin, flexible tube) is inserted into the patient's blood vessels and is gently guided to the heart. The physician carefully destroys malfunctioning tissue using the catheter to deliver energy (such as radiofrequency, laser or cryotherapy) to scar the problematic areas. The scarred areas will no longer send abnormal signals. If successful, the heart will return to a

*At First Coast Heart & Vascular Center, our group treats atrial fibrillation conservatively with medical treatment, however for select cases our board certified electrophysiologist, Dr. Dinesh Pubbi can perform Atrial Fibrillation ablations at the hospitals that have state of the art EP labs.* *DJP*



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