





Changing Health Care for Good.®

Understanding Atrial Fibrillation

The most important step you can take toward managing your Afib is to be informed about your condition and proactive about seeking the right treatment at the right time. Baptist Health welcomes the opportunity to partner with you to provide the highest quality, most advanced approaches available to help you find your freedom from Afib.

What is Atrial Fibrillation?

Atrial fibrillation (Afib) is the most common type of heart rhythm disorder (arrhythmia), impacting about 2.7 million people in the United States.

The heart has an electrical system, which provides signals to the chambers of the heart indicating when they should contract (squeeze) or relax. Afib is caused by chaotic electrical signals, which make the upper chambers of the heart (the atria) quiver, instead of fully contracting. For someone with Afib, the atria may beat as often as 300 times a minute, about four times faster than normal.

Afib is a progressive condition, meaning that if it is not treated, it can worsen. When this occurs, episodes tend to become more frequent and last longer. It is important to see a doctor if you have symptoms, because treating Afib early on improves long-term success rates.



Risk Factors

Even people committed to healthy lifestyles, who have no other medical problems, can develop Afib. There are a number of factors, however, that can increase a person's risk for developing Atrial fibrillation:

- Increasing age (60 and greater)
- Coronary artery disease
- Prior heart attacks
- Congestive heart failure
- Prior open-heart surgery
- Untreated atrial flutter (another type of abnormal heart rhythm)
- Heart valve disease
- Chronic lung disease
- High blood pressure
- Diabetes
- Obesity
- Smoking
- Thyroid disease
- Sleep apnea
- Excessive alcohol or stimulant use

Afib Risk





Symptoms

Some people with Afib do not feel any symptoms at all. Others notice a difference as soon as an Afib episode happens. Symptoms can be different for each individual, depending on age, the cause of the Afib, and how much Afib affects the pumping efficiency of the heart. Symptoms include:

- Feeling overtired or having little to no energy
- A faster-than-normal or irregular pulse
- Shortness of breath
- Palpitations (pounding, racing, or fluttering heart)
- Trouble with everyday exercises or activities
- Pain, pressure, tightness, or discomfort in your chest
- Lightheadedness, dizziness, or feeling like you could pass out

If you are experiencing any of these symptoms, please schedule an appointment with your doctor. If you don't have a regular doctor, we can help you find the right one for you. If you are experiencing chest pain, emergency medical action should be taken immediately, as it could be a sign of a heart attack.

Risks of Leaving Afib Untreated

While Afib itself is not usually life threatening, if left untreated, the effects of Afib can be potentially life threatening. Afib makes it more difficult for the heart to pump blood efficiently. With the blood moving more slowly throughout the body, it increases the chances for a blood clot to form. If a clot is pumped out of the heart and travels to the brain, it can cause a **stroke**. Afib is actually the leading cause of stroke in the U.S. and people with Afib are five times more likely to have a stroke than someone without Afib.

Without treatment, Afib can also make the heart beat too fast for long periods of time, causing the heart muscle to weaken. This condition is called **cardiomyopathy** and can lead to **congestive heart failure** and result in long-term disability or death.

If treated early and properly, however, people with Atrial fibrillation can live normal, healthy and long lives. The key is being proactive about your care.

Progression of Afib

There are four stages of Afib progression. The sooner you receive appropriate treatment, the higher the likelihood that it can be successfully treated.

Paroxysmal Afib

Signs or symptoms occur spontaneously and heart restores to normal rhythm within seven days of onset

Persistent Afib Irregular rhythm lasts consistently for longer than seven days

Longstanding Persistent Afib

Irregular rhythm lasts consistently for

longer than 12 months

Did You Know? Afib is the leading cause of strokes in the United States



Permanent Afib

Irregular rhythm lasts indefinitely

Diagnosing Afib

To diagnose Afib, your physician will review your symptoms and risk factors and perform a physical examination. He or she may also order one or more of the following diagnostic tests:

Electrocardiogram (EKG)

An EKG is a snapshot of your heart's electrical activity. Stickers (electrode sensors) are attached to your chest, arms and legs to painlessly measure your heart's rate and rhythm. An EKG is commonly used to diagnose Afib.

Holter monitor

A Holter monitor is a small, portable EKG device, usually placed in a pocket or worn on a belt. It records the heart's activity for 24 to 48 hours in order to provide your physician with a more in-depth look at your heart's rhythms and rates.

Event recorder

An event recorder is a small, portable device, much like a Holter monitor, used for patients who have an irregular heart rhythm every once in a while. You will carry it with you and activate it when you feel symptoms.

Echocardiogram

This test uses sound waves to produce images of your heart, enabling your doctor to assess any potential structural issues. The standard type is called transthoracic echocardiagram (TTE), which is non-invasive and conducted by a trained technician. With the second type, a transesophageal echocardiogram (TEE), you are given a small amount of sedation through an intravenous (IV) line and a transducer is inserted through your mouth and esophagus to give a better picture of your heart's atria.

Cardiac computerized tomography (CT)

A cardiac CT uses an X-ray machine and a computer to take clear, detailed pictures of the heart. This test creates a threedimensional (3D) picture of your heart and chest.

Magnetic resonance imaging (MRI)

A cardiac MRI uses radio waves, magnets, and a computer to create images of your heart and videos of it beating. Doctors use a cardiac MRI to see the beating heart, the parts of the heart, and how it is working.



Treating Afib

The goals of treatment for Atrial fibrillation include regaining a normal heart rhythm (sinus rhythm), controlling your heart rate, preventing blood clots and reducing the risk of stroke.

Many options are available to treat Afib, including lifestyle changes, medications, catheter-based procedures and surgery. The type of treatment that is recommended for you is based on your particular heart rhythm and symptoms.



Medications

There are, generally, three types of medications to help manage Afib:

Anticoagulants are used to reduce blood clotting and prevent stroke in Afib patients. They can range from aspirin, which causes platelets to become less adhesive, to prescription medications like warfarin, which thins the blood to prevent coagulation.

Rate control medications, such as beta blockers, calcium channel blockers and cardiac glycosides, can be used to bring the heart rate down in order to reduce Afib symptoms.

Antiarrhythmics are rhythm control medications. From sodium channel blockers to potassium channel blockers, they can impede the electrical signals that cause Afib, thereby keeping it suppressed in order to maintain normal rhythm.



Procedures

When medications do not work to control Afib, or when they are not well tolerated, a procedure may be needed to treat your abnormal rhythm.

Cardioversion is an outpatient procedure performed under shortacting sedation that electrically "resets" the heart. A low dose of energy reactivates normal rhythm, although its effect may not be permanent.

Catheter ablation is a minimally invasive procedure that typically applies radiofrequency energy to eliminate the small areas of heart tissue that are causing your Afib. Catheter ablation is designed to restore the heart's normal rhythm on a long-term basis.

An electrophysiologist (EP) performs the procedure, guiding catheters to the heart usually through a vein in the groin or neck. The procedure can take up to several hours and is performed under sedation with an anesthesiologist. Patients typically go home the following day and return to normal life and activities in one to two weeks. Medications for controlling the arrhythmia may be reduced or even eliminated following successful catheter ablation.

See page 10 for more on the latest advances in catheter ablation technologies.

Devices Pacemakers are small electrical devices, implanted under the skin close to the collarbone, that transmit an electrical signal to control proper contracting of the heart's rhythm. Baptist Health offers the latest MRI-compatible pacemakers and was one of the first research centers in the nation to offer the **new leadless pacemaker**. This advancement allows the world's smallest pacemaker — the size of a

vitamin — to be placed directly into the heart without any attached wires and offers numerous benefits.

Implantable cardioverter-defibrillators (ICDs) are implanted devices used to perform cardioversions and restore and correct pacing of the heart. Unlike pacemakers, they are also able to treat unexpected, lifethreatening arrhythmias such as Ventricular Tachycardia and Ventricular Fibrillation. Baptist Health offers the most advanced defibrillator technologies. The **new subcutaneous defibrillator** has wires placed under the skin instead of directly into the heart to decrease chances of infection. The **new ICD Mini** is the world's smallest heart defibrillator. **New biventricular defibrillator** implants now utilize the latest biventricular leads for patients whose hearts are both weak and out of sync to improve symptoms and quality of life.

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Maze Surgery

Maze surgery is an advanced procedure for those with persistent Afib, conducted by cardiac surgeons in collaboration with cardiac electrophysiologists.

Find the right physician.

Your primary care doctor or cardiologist will typically prescribe medications for early stages of Afib, but it is important to meet with a board certified **cardiac electrophysiologist** (EP) for a comprehensive evaluation. An electrophysiologist, as a subspecialist in cardiology, will help you understand the advantages and disadvantages of different treatments for symptomatic Afib, along with the optimal timing of treatment for best results.

At Baptist Health, a coordinated team of cardiac experts, delivering comprehensive care and services, will address all of your medical issues.

For help in finding the right physician to assess your symptoms, call Baptist Heart Specialists at **904.202.AFIB (2342)**.





Improvements in Catheter Ablation Treatment

Significant advances have been made in recent years in catheter ablation treatments for Afib. Baptist Health offers a full array of catheter ablations for all abnormal heart rhythms. We treat simple and complex Afib cases utilizing the latest equipment and techniques.

ThermoCool SmartTouch® Catheter

Contact force therapy has emerged as the most significant recent advancement in Afib treatment, demonstrating dramatically improved outcomes. Baptist Health is the first medical center in the region to use the new SmartTouch pressure-sensing catheter, which allows precise measurement of contact with the heart for more effective radiofrequency ablations and improved safety. The new technology also cools the tip of the catheter with saline to allow higher transference of energy, enabling more effective ablations. The procedure has an 80 percent overall success rate for patients with Paroxysmal Atrial fibrillation.

• Cryoballoon Catheter

Baptist Health was one of the first centers in Jacksonville to offer the Cryoballoon ablation. This balloon tipped catheter freezes the heart tissue instead of cauterizing it to produce similar success rates for patients with Paroxysmal Afib compared with standard radiofrequency energy. The Cryoballoon has a quicker procedure time, while the radiofrequency catheter offers more flexibility to create complex lesions, if necessary, to target all the involved areas in the heart.

Intracardiac Ultrasound Catheter

Baptist Health was one of the first centers in the country to use the latest intracardiac ultrasound catheter, which gives the same high quality ultrasound images inside the heart as the standard ultrasound catheter but with a significantly smaller catheter.



Baptist Health was the first medical center in the region to offer the safer, more effective ThermoCool SmartTouch[®] Catheter Ablation.



Visit **BaptistAfib.com** to learn more.

Advanced 3-D Mapping System

We use the latest 3-D cardiac mapping systems, acting like GPS navigation, to create virtual images of the heart's anatomy and electrical system in real time. This allows our EP specialists to pinpoint the source of abnormal electrical signals for improved success in eradicating them.

Did You Know?

More than **50 percent** of patients with Afib either don't respond to, or cannot tolerate, drug therapy. The American College of Cardiology and the American Heart Association recommend catheter ablation for patients when medication proves unsuccessful.



Baptist Health Electrophysiology Program

Baptist Health offers the most advanced and comprehensive electrophysiology program in the region.

Advanced Technology

- Complete diagnostic testing, including tilt-table testing and EP studies
- Experienced EP physicians who diagnose and treat all heart rhythm disorders with a full spectrum of electrophysiology services
- Latest 3-D electrical mapping systems for greater precision in eradicating arrhythmias
- The most advanced pacemakers, defibrillators, and biventricular device implants

Comprehensive Patient Care

- Comprehensive treatment options for simple and complex Atrial fibrillation, with a full array of catheter ablations
- Ongoing cardiology care through multiple convenient locations across the region
- Your medical problems will be addressed by a coordinated team of cardiac specialists to make sure all facets of your health are addressed, with communication back to your primary care physician

Regional Excellence

- First health system in the region to offer ThermoCool SmartTouch[®] Catheter Ablation for improved safety and outcomes, as well as Cryoballoon Catheter Ablation therapy
- Only dedicated Heart Hospital in the region, featuring a state-of-the-art EP Lab
- One of the first five centers in the U.S. to use the minimally invasive intracardiac ultrasound catheter for high quality images inside the heart

Baptist Heart Specialists is made up of over 30 board-certified, experienced cardiologists in eight locations across northeast Florida. We provide our patients with an unmatched range of services and expertise in heart care. A multidisciplinary team approach is used to meet patient needs for prevention, diagnosis, in-office procedures and testing, outpatient procedures, surgery, and cardiac rehabilitation.

State-of-the-art Expertise



Left to right, Scott Lee, MD, Venkata Sagi, MD, Aaditya Vora, MD, Chris Ruisi, MD

Scott Lee, MD

Director of Electrophysiology

"I am committed to taking the time needed to help you fully understand your medical condition and offer you the most advanced treatment options available."

Venkata Sagi, MD

Cardiac Electrophysiologist

"I derive professional satisfaction when I know I did my best to help you achieve a better quality of life. Being part of your healing process is my ultimate achievement." Aaditya Vora, MD Cardiac Electrophysiologist

"I am dedicated to helping you understand your condition as well as available treatment options so that together we can make the best decision to help improve your quality of life."

services to our patients utilizing the latest equipment and techniques. By offering all modalities, we can use our extensive experience to tailor your treatment plan and maximize success.

Our philosophy is

to offer comprehensive

Chris Ruisi, MD

Cardiac Electrophysiologist

"Every patient is unique and, to that end, I strive to provide you with a thoughtful treatment strategy that can provide a dramatic improvement in your quality of life."

What to Ask Your Doctor

If you have been diagnosed with Afib, or suspect that you may have the condition, here are some questions that you may want to ask your physician:

- What is the cause of my Afib?
- How can I be sure I have Afib and not another heart rhythm problem?
- What are the risks that my condition will become worse over time and how can I prevent it from becoming worse?
- Am I at increased risk of stroke or heart attack?
- What are my treatment options?
- What are the risks and side effects of medications to control my condition, or to reduce the risk of stroke?
- What are the risks and benefits of other treatment options?
- Should I see an electrophysiologist (a specialist in heart rhythm disorders)?

For More Information

Call Baptist Heart Specialists at **904.202.AFIB (2342)**. We can help you determine the type of physician you should see, help you find a conveniently located physician, and schedule your appointment.





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