A photograph of a middle-aged man with grey hair, smiling broadly while riding a bicycle. He is wearing a light pink, short-sleeved button-down shirt with decorative embroidery on the chest and pockets. The background is a soft-focus green landscape. A large blue diagonal shape is overlaid on the bottom left of the image, containing text and logos.

# Living with Atrial Fibrillation





## Important Information

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Cardiac Electrophysiologist

Phone

---

Cardiologist

Phone

---

Primary Care Physician

Phone

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Care Transition Nurse

Phone

---

Pharmacy

Phone

---

Allergies

## My Hospital

**Saint Thomas DeKalb**

520 W Main Street  
Smithville, TN 37166  
615-215-5000

**Saint Thomas Stones River**

324 Doolittle Road  
Woodbury, TN 37190  
615-563-4001

**Saint Thomas Rutherford**

1700 Medical Center Parkway  
Murfreesboro, TN 37129  
615-867-5028

**Saint Thomas Highlands**

401 Sewell Road  
Sparta, TN 38583  
931-329-5114

**Saint Thomas Hickman**

135 East Swan Street  
Centerville, TN 37033  
931-729-4271

**Saint Thomas West**

4220 Harding Road  
Nashville, TN 37205  
615-269-4545

**Saint Thomas River Park**

1559 Sparta Street  
McMinnville, TN 37110  
931-815-4000

**Saint Thomas Midtown**

2000 Church Street  
Nashville, TN 37236  
615-329-5114

## Saint Thomas Heart

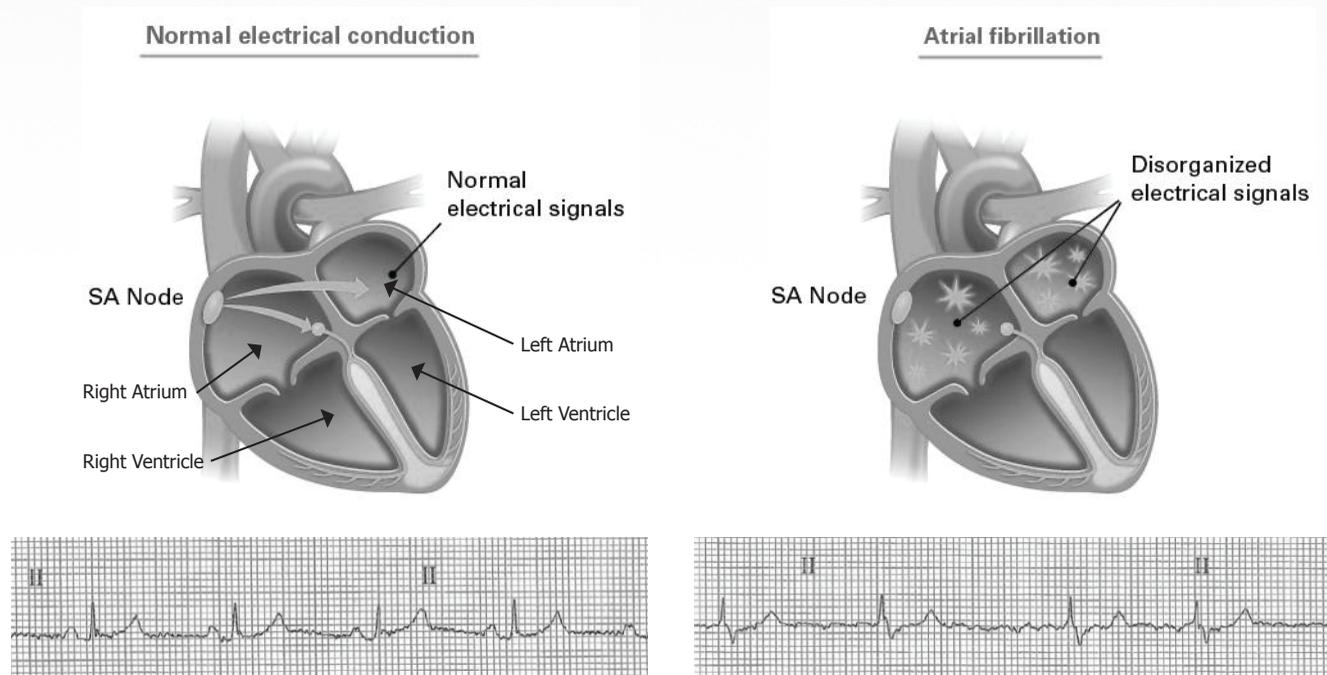
800-345-5016

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## What is Atrial Fibrillation?

Atrial fibrillation, often referred to as Afib or AF, is the most common irregular heart rhythm. There are an estimated 2.7 to 6.1 million Americans with Afib currently. As many as 1 in 4 adults will experience Afib in their lifetime.



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In a normal rhythm, a single electrical impulse begins in the top chambers of the heart (atria), travels across the top, and causes the atria to push the blood into the lower chambers (ventricles.) That same impulse then travels through the lower chambers. This causes the ventricles to pump the blood out to the body. This happens continuously, and these impulses are "fired" at a normal rate of 60-100 times per minute.

In Afib, instead of one electrical impulse, there are many, from all over the atria. This causes the atria to "quiver" instead of squeeze normally. Some impulses travel to the ventricles, but some do not. Instead, they circle rapidly around the atria. Because only some of the impulses are getting through to the ventricles, this makes the rhythm irregular. What you "feel" as your pulse (or rhythm) is the pumping of the ventricles. You cannot feel the rhythm of the atria.

Some patients purchase home monitors which measure blood pressure and heart rate. When the heart is in Afib, the monitor is not able to give an accurate count for the heart rate, because not all of the beats are "sensed" by the monitor. The monitor may show a lower number than the actual heart rate.

## Symptoms

When the atria and ventricles are not pumping in rhythm, the heart's effectiveness as a pump may decrease 20%-30%. Patients in Afib may experience any or all of the following symptoms:

- Heart palpitations (pounding, fluttering, racing)
- Fatigue, weakness, lack of energy, decreased physical endurance
- Shortness of breath
- Chest discomfort or pain
- Faintness, light-headedness, dizziness

## Types of Afib

Atrial fibrillation is classified according to how frequently the episodes occur and how quickly they stop. Some patients may stay in Afib while others go in and out of Afib many times throughout the day.

### Paroxysmal Afib

This refers to Afib that occurs suddenly and then returns to a normal rhythm without treatment. The Afib may last for seconds, minutes, hours, or up to seven days before the heart returns to its normal rhythm. As the heart goes in and out of Afib, the pulse rate may change from slow to fast and back again in short periods of time.

### Persistent Afib

Persistent Afib occurs when the Afib does not stop by itself. Medicines and/or cardioversion (an externally delivered electrical shock, administered by a healthcare provider) may be used to help the heart return to its normal rhythm. If no treatment is given, the heart will stay out of rhythm.

### Permanent Afib

This refers to Afib that cannot be corrected. Medicines or cardioversion cannot help the heart return to a normal rhythm. The heart is always in Afib and the condition is considered permanent. The main goal with permanent Afib is to control the heart rate and protect the patient from the risk of stroke by using blood thinners.

## Treatment Goals

- Relieve Afib symptoms and improve a patient's quality of life
- Prevent blood clots, to decrease the risk of stroke, by using blood thinners (anticoagulants)
- Control the heart rate with rate-slowing medicines to allow the ventricles enough time to fill with blood
- Reset the heart rhythm with medicine and/or procedures to allow the atria and ventricles to work together more effectively as a pump

### When to Call Your Doctor

- Worsened and sustained rapid heart rate
- Light-headedness, dizziness, confusion
- Bleeding that cannot be stopped (if taking a blood thinner)
- Fainting/near-fainting episode
- Side effect from medicine

## Controlling Risk Factors for Afib

There are many steps you can take to control your risk factors. Taking these steps will help to lessen symptoms and occurrences, and may help restore and keep a normal heart rhythm.

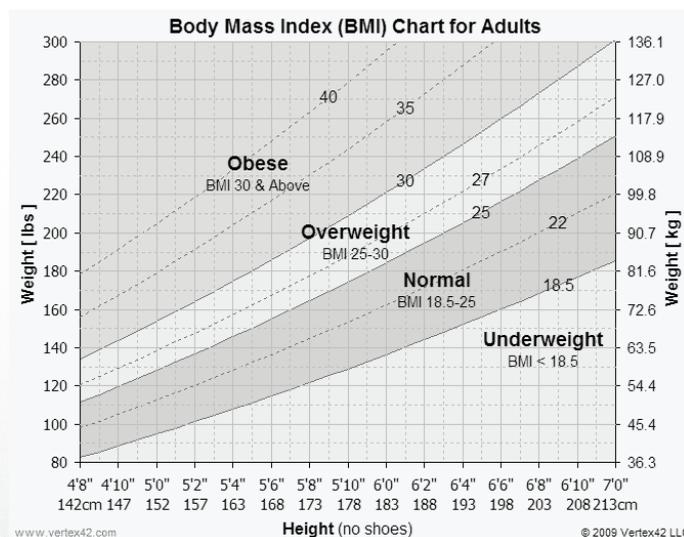
### Risk Factors that You Can Change

#### Obesity

There is an important link between the severity of obesity and the risk of developing Afib. Obesity increases the risk of developing Afib by 49% and as BMI increases, the risk for Afib increases even further.

#### Recommendations:

- If you have a normal weight, maintain it
- If you are overweight, enroll in a weight management program. If one is not available where you live, consult with your doctor



BMI Chart created by Vertex42.com. Used with permission.

## **Controlling Risk Factors for Afib (Continued)**

### **Obstructive Sleep Apnea (OSA)**

Approximately half of the patients with Afib also have sleep apnea. During an OSA episode, the airway becomes blocked, the patient gasps for air, and is often awakened by a loud snore. A prolonged OSA episode causes a negative pressure in the chest and an increase in blood pressure. This affects the electrical signals in the top of the heart, and increases the risk for Afib to develop.

#### *Recommendations:*

- If you snore, or are told that you do, ask your doctor about a referral to a sleep specialist

### **High Blood Pressure (Hypertension or HTN)**

High blood pressure is a well-established risk factor for Afib and stroke. Even after having an ablation, patients with high blood pressure are at an increased risk for the return of Afib. Strict management of high blood pressure is necessary to decrease the risk of Afib and stroke.

#### *Recommendations:*

- Eat a well-balanced, low sodium diet and see your doctor regularly to help control blood pressure

### **Diabetes**

Diabetes is a risk factor for the development of Afib.

#### *Recommendations:*

- See your doctor regularly to help keep blood sugar under control and maintain a healthy weight

### **Alcohol**

Drinking too much alcohol is harmful to the heart muscle. It can increase Afib episodes and may also increase the risk of stroke, clots, or deep vein thrombosis (DVT). Drinking alcohol may trigger the return of Afib after ablation. There is a lower success rate of Afib ablations in moderate and heavy drinkers.

#### *Recommendations:*

- Limit alcohol intake to 3 drinks or less per week

## Controlling Risk Factors for Afib (Continued)

### Stimulants

Many drugs, drinks, and foods contain substances which can affect the heart by triggering fast, regular, or irregular rhythms. Caffeine is found in coffee, tea, sodas, energy drinks, and chocolate. Nicotine, in tobacco (whether chewed or smoked), is a stimulant. Diet Pills and many over-the-counter drugs (example, decongestants) contain substances which may trigger fast, irregular rhythms. Taking illegal drugs or abusing legal drugs can cause dangerous heart rhythms.

#### *Recommendations:*

- Talk to your doctor about how the use of specific stimulants may affect your heart rhythm

### Cigarette Smoking

Smoking cigarettes (and inhaling smoke from other people) not only is a leading factor for heart disease, it is also a known cause of abnormal heart rhythms. This is due to the combined effects of the nicotine from the tobacco and the carbon monoxide from the smoke. Smokers are twice as likely to develop Afib as non-smokers, and people who have stopped smoking are at a much lower risk than those who continue to smoke.

#### *Recommendations:*

- If you smoke, ask your doctor about a referral to a smoking cessation program

### Exercise - Too Little or Long Term Endurance

Either too little or too much exercise can increase the risk of Afib. The greatest benefit to your health comes with moderate exercise. People at the lowest end of physical fitness have a five times greater risk of experiencing Afib. On the other hand, athletes who exercise at the highest levels of activity, over long periods of time, also have a five times greater risk of developing Afib. However, this was noted in middle-aged adults, rather than young athletes. This is believed to be related to the changes which take place with the aging heart. Endurance training produces the “athlete’s heart” with chamber enlargement and thicker muscle walls. These changes may lead to the development of Afib and other abnormal heart rhythms.

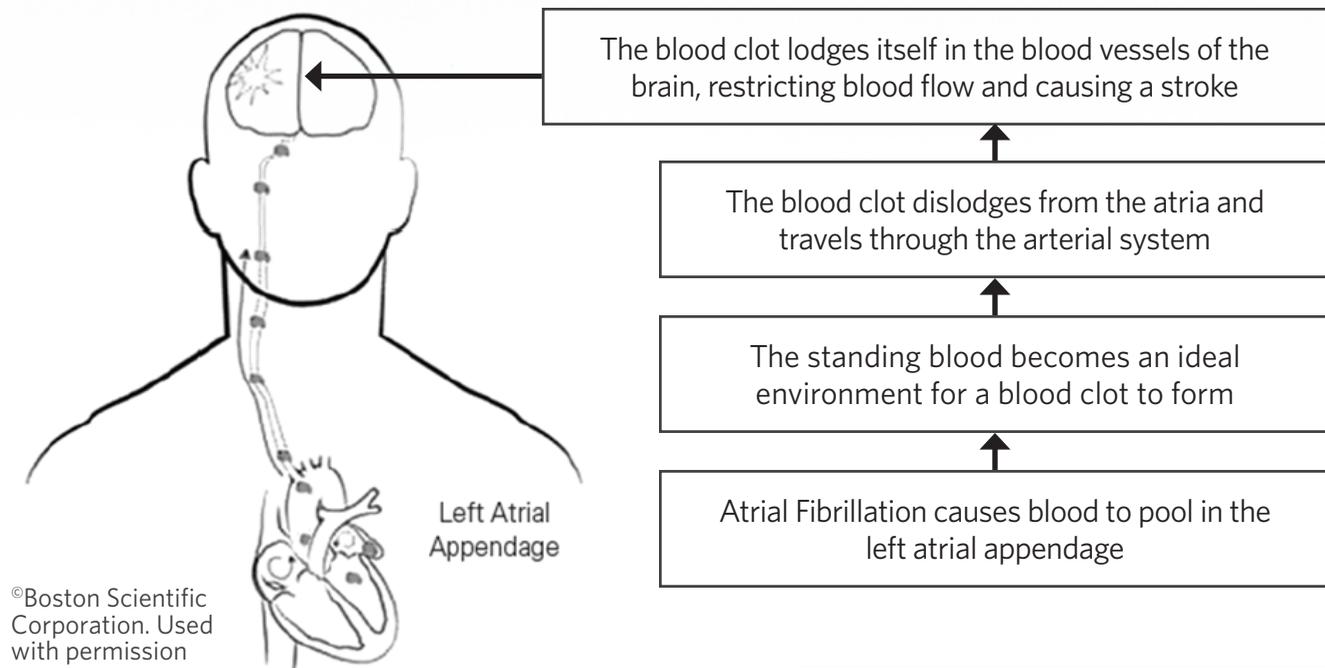
#### *Recommendations:*

- For physically inactive patients with Afib, a regular exercise program will help with weight management. This will help to increase heart muscle strength and tone, which may reduce the risk and amount of Afib
- For the endurance athlete, decreasing physical activity levels can reverse the changes caused by the vigorous exercise and reduce the incidence of Afib
- Consult with your physician for recommendations for an appropriate level of exercise

# Stroke Risk

## Stroke - The Greatest Risk of Having Atrial Fibrillation

Patients in Afib are **five times** as likely to suffer a stroke as someone not in Afib. When the heart is in Afib, it lacks the normal “push” of blood from the atria to the ventricles. The blood is allowed to “pool” in the atria and may form a clot. When the heart goes back into a normal rhythm, this clot may move into the ventricles and then be pumped out to the body. If the clot travels through the blood vessels to the head, it blocks the flow of blood to the brain and causes a stroke



Since some patients do not experience symptoms with Afib, it is important to be aware of the symptoms of a stroke:

During a Stroke Every Minute Counts  
**BE F.A.S.T. !**

- B** Balance: Sudden difficulty walking or standing?
- E** Eyes: Sudden blurred vision, double vision or loss of vision?
- F** Facial Drooping: Sudden Facial Drooping. Ask patient to smile. Does one side of the face droop?
- A** Arm Weakness: Sudden Arm Weakness. Ask the patient to raise both arms. Weakness or drift present?
- S** Speech Difficulties: Sudden changes in speech. Ask the patient to repeat a simple phrase. Is their speech slurred or strange?
- T** TIME: When did you last remember being without these symptoms?

### Other signs may include:

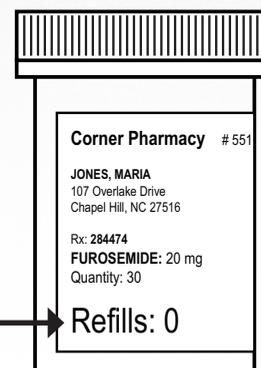
- Sudden numbness, especially on one side
- Sudden confusion
- Sudden severe headache with no known cause

**IF YOU NOTICE ANY OF THESE SYMPTOMS, CALL 911. DURING A STROKE, EVERY MINUTE COUNTS!**

# Understanding my Atrial Fibrillation Medications

## Important information about medicines

- It is very important to follow your doctor's instructions exactly as prescribed
- No matter how you feel, do NOT change your medicine dose or stop taking it without the instruction of your doctor
- If you are having trouble paying for your medicine, talk to your doctor or pharmacist. There may be another medicine that can be used
- Don't run out of your medicines. Be aware of how many refills you have left
- Get all your medicine from the same pharmacy. This will help make sure they are safe to use together
- Store in original manufacturer's bottle
- Keep an updated list of medicines (prescriptions, over the counter, and herbal products) with you so that all of your doctors know what you are taking. Bring this list to any appointments or if admitted to the hospital
- Take your medicines at the same time EVERY DAY. Have a way to help you remember to take your medicines (pillbox, medicine calendar, phone APP, etc.)
- If you miss a dose, and it is within 1-2 hours of the scheduled time, take the missed dose. Otherwise, call your doctor's office or pharmacist for further instructions
- Since some of these medicines decrease your blood pressure, you may get dizzy when you stand up. After lying down, it is helpful to sit first, wiggle your feet, and then stand slowly
- If you are going out of the house, and there is a chance you will not be home for your next dose of medicine, make sure to take your medicines with you
- Let your doctor know if you feel that your medicines are not working or that your symptoms are not improving. You are a team and are working together to find the best treatment plan for you
- Before taking any new medicines, other than what has been prescribed for you, always check with your physician to make sure the drug will not interfere with your current medicines or your condition



**The following is a review of the most common medications used for atrial fibrillation. Your doctor will determine which of these medications you will take.**

# Anticoagulants

Anticoagulants, also called “blood thinners”, are given to patients with Afib to protect them from the risk of a stroke. Anticoagulants prevent blood clots from forming. There are different types of anticoagulants. You and your doctor will decide which anticoagulant is best for you.

## Types of Blood Thinners (Anticoagulants)

### Vitamin K Antagonist:

#### *Warfarin (Coumadin®)*

- Given once daily in the evening
- Requires regular blood checks (PT/INR), to make sure that the blood is not “too thick” or not “too thin”
- Talk to your doctor about your PT/INR goals
- Warfarin interacts with some foods and some drugs

### Direct Thrombin Inhibitor:

#### *Dabigatran (Pradaxa®)*

- Given twice daily
- No blood checks required
- Dabigatran does not interact with food, but does interact with some drugs

### Factor Xa Inhibitors:

#### *Apixaban (Eliquis®)*

- Given twice daily
- No blood checks required
- Apixaban does not interact with food, but does interact with some drugs

#### *Rivaroxaban (Xarelto®)*

- Given once daily with evening meal
- No blood checks required
- Rivaroxaban does not interact with food, but does interact with some drugs

#### *Edoxaban (Savaysa®)*

- Given once daily
- No blood checks required
- Edoxaban does not interact with food, but does interact with some drugs

In case of emergent bleeding with any of these drugs, your doctor will determine the most appropriate drug/course of action to control the bleeding.

## Which blood thinner am I taking?

---

## Medicines to Control Heart Rhythm

### Antiarrhythmics:

Amiodarone (Pacerone®)

Flecainide (Tambocor®)

Propafenone (Rhythmol®)

Dofetilide (Tikosyn®)

Procainamide (Pronestyl®,

Sotalol (Betapace®)

Dronedarone (Multaq®)

Procan-SR®)

### How do they help?

They control abnormal heart rhythms by slowing the electrical impulses as they travel through the heart tissue or by blocking these impulses.

### Potential side effects:

- Nausea
- Vomiting
- Tremors
- Diarrhea
- Loss of appetite
- Dizziness
- Tiredness
- Headache
- Sleep problems

### Special instructions:

Antiarrhythmics interact with many other medicines. Be sure you tell your doctor about:

- Any medicines you are presently taking
- Any medicine or food allergies
- Any history of heart failure, kidney, liver, lung disease, or thyroid problems
- If you miss a dose, and it is within 1-2 hours of the scheduled time, take the missed dose.

Otherwise, call your doctor's office or pharmacist for further instructions

### Special notes for patients taking Amiodarone:

- If you take the cholesterol drug Simvastatin (Zocor®), it is recommended that Simvastatin be switched to Atorvastatin (Lipitor®) or Rosuvastatin (Crestor®)
- If you take Warfarin or Digoxin, you may need a lower dose, as Amiodarone affects the blood levels of these medications
- As long as you take Amiodarone, your doctor will check your blood work for thyroid and liver function regularly, and may also check a periodic chest x-ray.

### Call your doctor with any of the following symptoms:

- Chest pain
- Severe dizziness
- Feeling like you might pass out
- Fast or pounding heartbeats
- Confusion
- Slow heart rate
- Difficulty breathing
- Call your doctor with a heart rate or rhythm that worries you

### Which one am I taking?

---

## Medicines to Control Heart Rate

### Beta Blockers:

Metoprolol (Toprol XL®)

Carvedilol (Coreg®)

Bisoprolol (Zebeta®)

Atenolol (Tenormin®)

Nebivolol (Bystolic®)

### How do they help?

They decrease the work of the heart by lowering the heart rate and blood pressure.

### Potential side effects:

- Feeling tired
- Dizziness
- Slow heart rate

### Special instructions:

Beta blockers may worsen breathing problems. Let your doctor know if you have asthma or other breathing conditions.

Initially, symptoms may appear worse as your heart responds to the medicine. Between 2-3 weeks, you should feel improvement in your symptoms.

Carvedilol should be taken with a meal.

If you have diabetes, these medicines can prevent your body from having its usual symptoms of low blood sugar (such as shaking and headache.) Sweating could be the only symptom you will notice.

### Which one am I taking?

---

## Medicines to Control Heart Rate

### Calcium Channel Blockers:

Diltiazem (Cardizem®)                      Verapamil

### How do they help?

These drugs slow the rate of the electrical impulses through the heart.

### Potential side effects:

- Headache
- Swelling in legs
- Slow heart rate
- Constipation
- Dizziness, weakness, tiredness
- Nausea
- Flushing

### Special instructions:

Make sure you tell your doctor about:

- Trouble breathing
- Slow heartbeats
- Dizziness, fainting, or fast/pounding heartbeat
- A red/purple, itchy, burning skin rash (especially face or upper body) which could be a skin reaction to the sun caused by calcium channel blockers

### Which one am I taking?

---

## Medicines to Control Heart Rate

### Cardiac Glycosides:

Digoxin (Lanoxin®)

### How does it help?

Digoxin can make the heartbeat stronger and more regular.

### Potential side effects:

- Nausea
- Feeling tired
- Vision changes

### Special instructions:

Your doctor may do blood tests to check your “level” of this medicine. Special caution is taken when this drug is used in elderly patients or those with decreased kidney function.

Make sure you tell your doctor about:

- Vision changes (blurred or yellow vision)
- Nausea
- Decreased appetite
- Vomiting/diarrhea

### Do I take this medicine?

---

# Procedures

There are several procedures which can be performed to restore a patient's normal heart rhythm, OR if a normal rhythm cannot be restored, may help to control the patient's rate and symptoms.

## Chemical or Electrical Cardioversion

The word "Cardioversion" means to restore the normal rhythm of the heart.

### Chemical Cardioversion

A chemical cardioversion is when medicines alone are effective in restoring a normal heart rhythm.

### Electrical Cardioversion

An electrical cardioversion is a procedure which is performed in the hospital. This is done while the patient is asleep and monitored. A shock is delivered to the heart using paddles placed on the patient's chest and back. The purpose of the cardioversion is to "reset" the abnormal heart rhythm. This is successful about 90% of the time, but cannot guarantee that the Afib will not return later. Because of the danger of clot formation in Afib, cardioversion is always combined with a blood thinner and sometimes combined with antiarrhythmic medicines. If the patient has been in Afib for 48 hours or more, a blood thinner will be required for 3-4 weeks before the procedure can be done safely.

In some cases, your doctor may decide that you need the cardioversion sooner than 3-4 weeks. If that happens, you will need a TEE (transesophageal echocardiogram) before the cardioversion. In a TEE, a special tube is placed in the esophagus (throat) and guided down behind the heart to see if there are blood clots in the atrium. If no clots are present, the cardioversion can be done. If blood clots are present, the procedure must be delayed due to risk of the clot moving out of the heart.



Heart Rhythm in Atrial Fibrillation

Cardioversion Shock

Normal Heart Rhythm

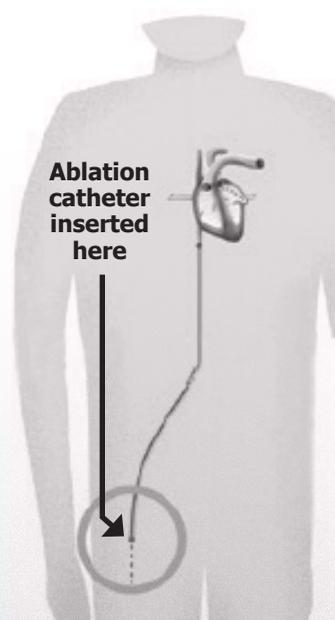
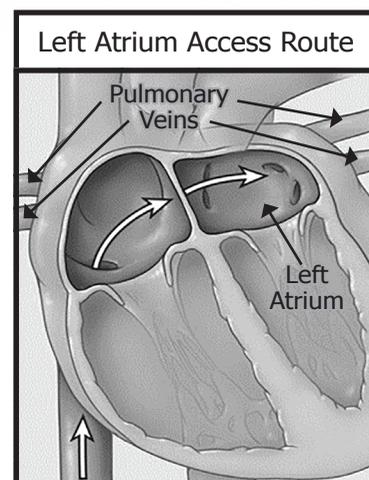
## Electrophysiological (EP study) and Catheter Ablation

In the EP study, a map of the heart's electrical activity is created using a combination of advanced computer mapping technologies and imaging techniques. This map is used to pinpoint the areas of the atrium where the abnormal electrical signals are starting, and to confirm, after the ablation procedure, that the signals are no longer present.

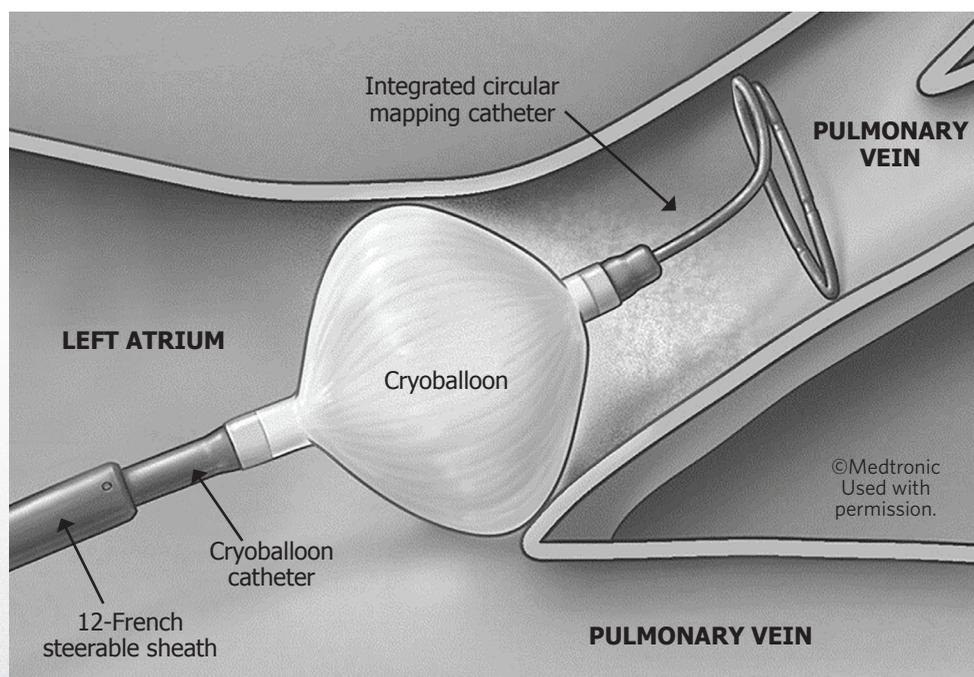
Research has shown that Afib usually begins in the pulmonary veins where they attach to the left atrium. The pulmonary veins are large blood vessels that carry blood from the lungs to the left atrium. There are four major pulmonary veins and one or all may be involved in triggering Afib. The goal of catheter ablation is to prevent unwanted electrical currents from traveling out of the pulmonary veins into the left atrium.

During the ablation procedure, long flexible tubes (catheters) are inserted into blood vessels in the groin and guided into the atrium. Using the electrical map as a guide, energy (heating or freezing) is delivered through the tip of the catheter to the tissue which has been targeted for ablation. Catheter ablation destroys the unwanted electrical signals or blocks them from reaching the left atrium. As the tissue heals, it creates areas and lines of scar, through which the abnormal electrical signals are not able to pass. This is known as Pulmonary Vein Isolation (PVI).

Many patients, especially those with persistent Afib, have additional sources of Afib outside the pulmonary vein. These sources will be identified and ablated as well with either cryoenergy (intense cold) or radiofrequency (radio wave) energy.



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## After Your Ablation

### Discharge Information and Instructions

1. In order to avoid bleeding from the catheter puncture sites, we ask that you avoid strenuous physical exertion for up to 7 days after your procedure
2. You are encouraged to walk and perform light activity. Do not do any pushing, pulling, or lifting more than 10 pounds for up to 7 days after the procedure
3. As soon as your doctor allows, you can return to work a few days after the procedure, if you aren't experiencing any problems
4. You may take a shower when you get home and remove the bandages. You may reapply Band-aids® as needed. It is important to keep the puncture sites dry

### It is common to feel or have:

- **General soreness and aching muscles** in arms, legs, or back from lying still in the same position during the procedure
- **Fatigue** and being quite tired for several days
- **Chest discomfort** during the first several days, especially during deep breaths
- **Sore throat** from the tubes used to check for blood clot (TEE) or to support your breathing during anesthesia. Some people have a hoarse voice for a few days
- A **dry cough** is common
- **Bruising** in the area(s) where the catheters were inserted. These bruises should resolve in a few weeks. It is common to have a **lump under the skin at the catheter insertion site**; this may take several months to resolve
- **Abnormal or irregular heartbeats** for weeks or even months (may last for up to 90 days) after the procedure

You may develop recurrent episodes of atrial fibrillation. This experience is common and gradually lessens with time. It is related to the irritation of the heart tissue from the procedure itself. This does not mean that the procedure was not successful, but it does suggest that you may take weeks or months before you get maximum benefit from the procedure.

## **After Your Ablation (Continued)**

You will need to take your anticoagulant (blood thinning medication) for at least 2-3 months after the procedure to prevent blood clots and reduce the risk of stroke. You may need to continue this medication for longer than 3 months, depending on your individual risk for stroke. Your physician will tell you when it is safe for you to stop. **It is essential that you do not stop your anticoagulant without contacting your physician.**

You may also need to take an antiarrhythmic medication to control abnormal heartbeats for a time after your procedure.

You will be seen in the clinic about 1 to 3 months following your procedure to check your heart rhythm and review your medications. Some medications may be stopped after that visit.

## **When to Call Your Surgeon**

- A fever over 100 degrees
- Shortness of breath or more severe chest pain
- Difficult or painful swallowing
- Afib lasting longer than 24 hours
- Increased bleeding, bruising, swelling, or pain near the catheter insertion site

## **Pacemakers and Defibrillators**

Although not used as a stand-alone treatment, these devices may be used together with medicine or catheter ablation. Some pacemakers and defibrillators have features that detect Afib early and help control episodes. In patients with long-standing Afib who have not responded to treatment and whose fast rate has caused severe symptoms and weakened the heart muscle, an AV Node ablation may be needed. The AV node is the “door” through which the electrical signals travel from the top part (atria) of the heart to the bottom (ventricles). This type of ablation closes that door. Because no signals are coming from the top part of the heart after the ablation, a pacemaker is now necessary for a normal, stable rate. The Afib remains, but the rapid atrial rate can no longer increase the heart rate.

## **Surgical Options for Afib Ablation**

One option for the ablation of Afib is the MAZE procedure. This involves creating lines of scar tissue on the outside of the heart. Typically this is an open chest procedure and is done in patients with Afib who are already undergoing open heart surgery for other reasons.

Some patients, who have long-standing Afib, or who have significant atrial enlargement, may benefit from a different version of the MAZE, which is called the Convergent MAZE. This is typically done in two procedures. The first procedure is performed by a heart surgeon. It involves going under the ribs, into the sack around the heart, and ablating the back wall by creating lines of scar in the heart tissue. In the second procedure, on a different day, the EP cardiologist performs a traditional Afib ablation from inside the heart to connect the surgical lines of scar. The EP cardiologist then maps the area to confirm that the abnormal electrical impulses have been destroyed.

## **Left Atrial Appendage Closure (LAAC)**

The first line of treatment for the prevention of clots (and risk of stroke) in patients with Afib is usually a blood thinner. However, there are some patients who have conditions in which long term use of a blood thinner is not advised. These would include conditions such as:

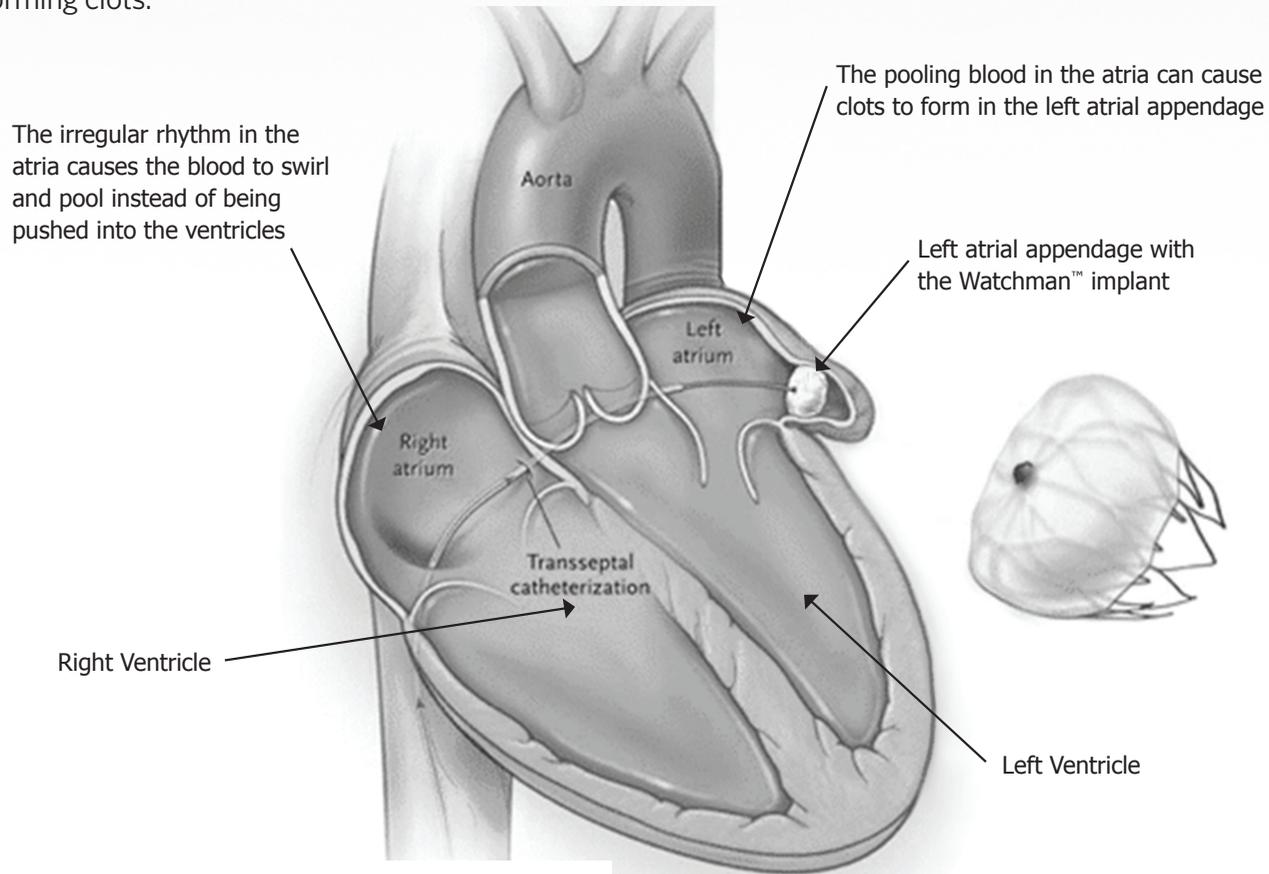
- History of major bleeding while on blood thinners
- If on warfarin, patient is not able to keep INR (the blood test which measures blood “thinness”) at a stable level, OR
- If the patient on warfarin is not able to monitor INR regularly and has no access to an available approved alternate blood thinner
- A medical condition, occupation, or lifestyle which places the patient at high risk for major bleeding from a traumatic injury (such as falls, work injuries, etc.)

For patients with these conditions, an implantable Left Atrial Appendage Closure (LAAC) device may be an option.

## Left Atrial Appendage Closure (LAAC) (Continued)

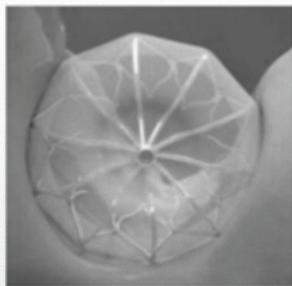
The left atrial appendage (LAA) is a small pouch, which is attached to the left atrium and lies next to the outside wall of the left ventricle. Its function is thought to relieve pressure from the left atrium when the left ventricle is squeezing. Because of its shape and location, it has also been found to be a likely area where blood may pool when a patient is in Afib, increasing the risk of a clot causing a stroke.

When implanted, the device acts as a “plug” over the LAA, preventing blood from entering the LAA and forming clots.

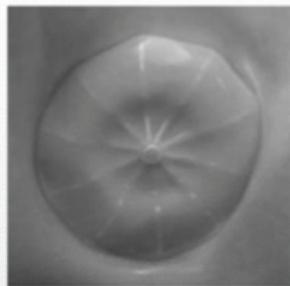


Flexible catheter inserted through right femoral vein and up the inferior vena cava

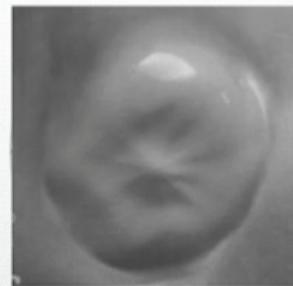
Watchman™ Boston Scientific Corporation. Used with permission.



Watchman Device at the left atrial appendage shortly after implant



Heart tissue grows over the device, typically within a few weeks

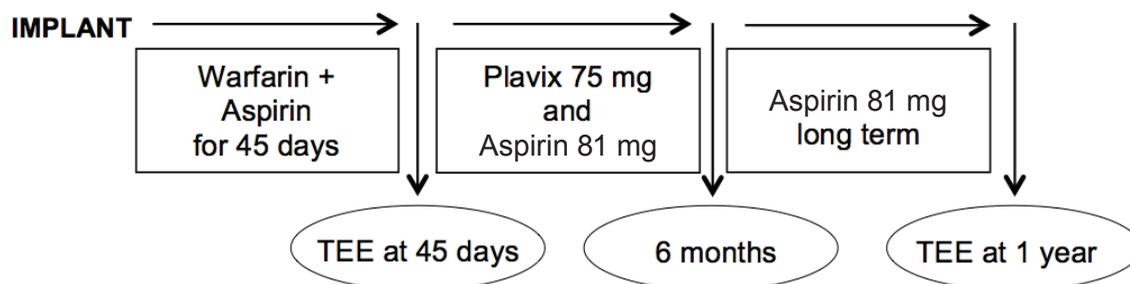


The LAA, the most common source of strokes in Afib patients, will be sealed off permanently

## Left Atrial Appendage Closure (LAAC) (Continued)

### Requirements for Consideration of the LAAC:

- 1 Must be at increased risk for stroke, caused by a clot, and
- 2 Must be able to take Warfarin for 45 days after implant, and
- 3 Must have a medical condition, occupation, or lifestyle which places the patient at high risk for major bleeding from a traumatic injury (such as falls, work injuries, etc.), or any issue that prevents the use of long term blood thinners
- 4 If your doctor determines, with you, that the LAAC is an appropriate alternative to blood thinners, the following tests will be ordered, in preparation for the procedure:
  - CT Scan of the Heart - To obtain accurate measurements of the heart, blood vessels, LAA size, and shape
  - Transesophageal Echocardiogram (TEE) - A TEE is an echocardiogram (ultrasound study of the heart) in which a special probe is guided down the esophagus, while the patient is sleeping, which allows a clear picture of the heart and blood vessels from inside the chest. The primary purpose of the TEE is to make sure that there are no clots in the heart prior to the LAAC procedure
- 5 Ability to follow the recommended post implant guidelines



It is important to note that the LAAC will not correct the Afib. It prevents clots from forming in the LAA which may cause a stroke. However, strokes may be caused by other factors, such as high blood pressure, narrowing of the blood vessels that carry blood to the brain, or bleeding into the brain, as from an injury. The LAAC cannot prevent a stroke which may be caused by these other factors.

## **For More Information**

### **Saint Thomas Health**

<https://www.sthealth.com/Medical-Services/Saint-Thomas-Heart/Cardiac-Conditions-and-Diseases/Atrial-Fibrillation>

### **American Heart Association**

[www.heart.org/HEARTORG/Conditions/Arrhythmia/Arrhythmia\\_UCM\\_002013\\_SubHomePage.jsp](http://www.heart.org/HEARTORG/Conditions/Arrhythmia/Arrhythmia_UCM_002013_SubHomePage.jsp)

Follow link to “AFIB Town”. Also, follow link to Arrhythmia Tools and Resources, and then to Afib Materials.

### **Heart Rhythm Society**

[www.hrsonline.org](http://www.hrsonline.org)

### **Afib Awareness**

[www.alittlefib.org](http://www.alittlefib.org)

### **Stop Afib**

[www.stopafib.org](http://www.stopafib.org)





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