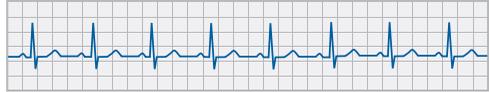
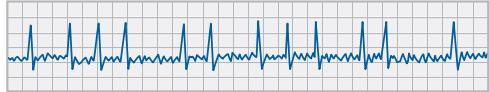


What is Atrial Fibrillation?

Atrial fibrillation, or AF, is a common heart condition in which the upper part of the heart (the atria) beats irregularly and possibly too fast because it receives extra, “abnormal” electrical signals. This causes it to quiver (or fibrillate) and affects the heart’s ability to efficiently pump blood to the body. Over time this will reduce the length and quality of a person’s life.



EKG tracing of a normal heart rhythm



In atrial fibrillation, the tracing shows tiny, irregular “fibrillation” waves between heartbeats. The rhythm is irregular and erratic.

While AF is rarely painful, it can produce an uncomfortable sensation in the chest. The decreased pumping power of the heart can also cause dizziness, light-headedness, shortness of breath and fatigue. Some patients, however, have no sensation at all that their heart is fibrillating.

Why Should AF Be Treated?

Most people with AF have symptoms that are severe enough to cause them to seek treatment. However, even if you do not have symptoms, you should still treat your AF because it can have several serious consequences. Over time, AF can cause the heart to lose its ability to work effectively, leading to heart damage that can be irreversible. People with untreated AF are approximately twice as likely to die than someone with a normal heart rhythm.

You also need to know that when the heart pumps inefficiently due to AF, some blood stays in the heart where it forms a pool that can thicken and become a blood clot. If part of the clot breaks loose, it could cause a stroke. In fact, untreated AF increases your risk of a stroke by five times.

Things to Discuss with Your Doctor or Other Healthcare Professional.

1. *How serious is my AF right now?*
2. *What are we doing to prevent my AF from getting worse and damaging my heart?*
3. *Do I have any other heart problems or other conditions that prevent me from trying one of the procedures that might cure my AF?*
4. *At what point, if ever, do you think I should consider one of these procedures?*
5. *What are the risks of having one of these procedures?*
6. *What effect do things like my age, general health, and weight have on these risks?*
7. *What are the benefits of having a procedure for my AF?*
8. *Is there a benefit of the surgical procedure over catheter procedure?*

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This material may contain uses of AtriCure devices for the surgical treatment of atrial fibrillation which are investigational and have not been approved by the U.S. Food and Drug Administration.

Please review the Instructions for Use for a complete listing of indications, contraindications, warning, precautions, potential adverse events and Directions for Use prior to using these devices. Federal Law (USA) restricts these devices to sale, distribution, or use by or on the order of a physician.

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Better Treatment

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How Common Is AF?

A new study by the Mayo Clinic now estimates that over 5 million Americans have AF. That's more than double previous estimates. And the odds of developing AF increase with age – it's estimated that nearly 4% of people over age 60 and 9% of those over 80 have AF.

What Causes AF?

It is unlikely your doctor can pin-point just one cause of your AF, but there are certain “risk factors” that increase the likelihood of developing AF.

These Include:

- A previous heart attack, congestive heart failure, leaky valves, coronary artery disease, or inflammation near the heart
- High blood pressure or diabetes
- Thyroid, lung, or nerve conditions
- High levels of caffeine or alcohol use

How Is AF Treated?

There is no single treatment strategy that has been shown to be effective for all patients with AF. The choice of treatment depends upon the severity of your symptoms, the likelihood that you will respond to a particular treatment, and consideration of the risks vs. benefits of treatment. Your doctor can discuss your specific issues with you.

There are a number of possible alternative treatments and variations of treatments. This brochure focuses on the most commonly-offered options. They represent the 3 goals of AF treatment:

1. Reduce your stroke risk
2. Manage or control your heart rate while in AF.
3. Try to cure your AF

Drug Therapy

Anticoagulants (or blood thinners) are prescribed to most AF patients to prevent blood clots that could lead to a stroke. Coumadin, (warfarin) is the most commonly prescribed drug and has been shown to reduce the risk of stroke by 68% compared to no treatment at all. To achieve this level of protection, however, it is important to maintain

the correct level of Coumadin in your blood – too little and clots can form; too much and you can have severe bleeding problems. As many other drugs, dietary supplements, and foods can affect blood levels, it is important to follow your doctor's instructions closely and have your blood levels monitored regularly.

“**Rate control**” drugs try to control your heart rate during AF and “**rhythm control**” drugs (or anti-arrhythmics) try to bring your heart back into a normal and consistent rhythm. These drugs can offer a degree of success, but some people have problems tolerating their side effects or cannot use them because they may interact with drugs they are taking for other conditions.

Potential Cures for AF

Because successfully managing AF can be difficult, your doctor will probably discuss your options for trying to cure your AF. The 3 “ablation” procedures described next offer your best chances of doing so. They offer varying degrees of success and the type of AF you have can affect which options are available to you.

As with any procedure dealing with the heart, they also have varying degrees of risk involved. Your doctor can help you understand what they are and how your overall health and age affect these risks.

Catheter Ablation

This procedure attempts to eliminate the main cause of your AF. Several small catheters (or tubes) are threaded through a vein in your groin and up to the heart to gain access to the inner heart. At least one catheter is pushed through the wall between the two upper heart chambers in order to gain access to the left upper chamber (left atrium). Electrodes at the end of the catheter can help the doctor detect the faulty electrical sites that are causing your heart to beat irregularly and too fast. Hot or cold energy is then used to scar (or ablate) these sites. These scars can block the main electrical impulses causing your AF. Success rates for curing AF completely & ending the need for anticoagulants can vary widely and sometimes the doctor may find it necessary to repeat the procedure one or two times. Catheter ablation can take up to six hours but, on average, only requires a 2-3 night hospital stay.

Open-Chest Surgical Ablation

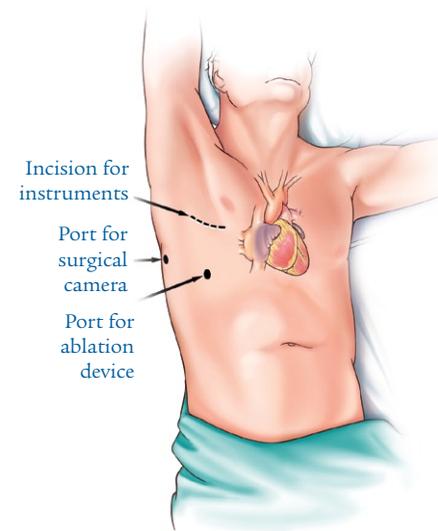
Over 35,000 patients have had this procedure, often called a Maze procedure. It has proven highly effective for a wide range of AF patients – even those with chronic AF. But while it can offer a cure for AF, it is also an invasive procedure requiring open-heart surgery and often a use of the heart-lung machine.

However, you and your doctor may want to consider this option if you have AF and need open-heart surgery for another reason such as bypass surgery or a valve repair or replacement. It only takes an extra 15 to 25 minutes to create the necessary scars (ablations) that can block the abnormal electrical impulses causing your AF.

Additionally, many surgeons will also remove or close off a small flap on the heart (the left atrial appendage) that is believed to be the main site where stroke-causing blood clots form during AF.

Minimally-Invasive Surgical Ablation

In recent years surgeons have developed this minimally-invasive approach, often called the “Mini-Maze.” It is similar to the open-chest ablation except that the surgeon reaches the heart through 3 small incisions on each side of the chest.



Minimally-invasive ablation reaches the heart through 3 small incisions on each side of the chest.

This approach usually takes about 2-4 hours and, as in the open-chest procedure, the surgeon uses an energy source to make precise scars, or ablations, on the heart to block the irregular electrical impulses that cause AF.

Again, many surgeons will also remove or close off the small flap on the heart that is believed to be the main site of stroke-causing blood clots.

Because the chest does not have to be opened, recovery is much easier and the average hospital stay is reduced to around 3 or 4 days.



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