



Atrial Fibrillation FAQs

What is atrial Fibrillation?

Atrial fibrillation is the most commonly encountered abnormal heart rhythm. Abnormal electrical impulses originating in the top chambers of the heart cause the heart to beat irregularly and rapidly. Some patients are highly symptomatic when they are in atrial fibrillation, experiencing palpitations (irregular beats, “skipped” beats, “fluttering” in the chest), shortness of breath, and fatigue; other patients have no symptoms at all. Some patients have atrial fibrillations episodes that “come-and-go” (paroxysmal atrial fibrillation), while others are in atrial fibrillation all of the time (persistent atrial fibrillation).

Although atrial fibrillation itself is not life threatening, it can significantly increase the risk of stroke, which can be life threatening or life altering. Atrial fibrillation can also significantly impact a patient’s quality of life and lead to worsening heart conditions.

How is atrial fibrillation treated?

The most important part of treating atrial fibrillation is preventing a stroke. Your doctor will determine your risks, and then devise a treatment strategy. In some patients with minimal risk factors, an aspirin is sufficient for preventing a stroke; in patients at higher risk, the use of blood thinners (anticoagulants) is necessary. The good news is that taking the appropriate medications significantly reduces the risk of stroke.

Heart rate control is also an important part of the treatment of atrial fibrillation. Patients whose heart rates are not well controlled tend to have more symptoms, and persistently elevated heart rates can lead to longterm problems such as congestive heart failure. There are several medications that can be used to control the heart rate.

Another option is to attempt to restore and maintain regular (normal sinus) rhythm. If a patient is in atrial fibrillation persistently, a procedure called a *cardioversion* can be performed. This involves putting the patient to sleep and applying a “shock” to the heart to “reset” the rhythm. To help keep the heart out of atrial fibrillation, special rhythm control medications (antiarrhythmics) can be used. These medications carry a slightly higher risk of side effects than medications that are used for controlling the heart rate.

Another option for maintaining normal rhythm is procedure called an atrial fibrillation ablation (formally called a *pulmonary vein isolation*). This procedure is performed in the hospital under general anesthesia. The tissue in the heart where the atrial fibrillation originates is altered by either heating or freezing it, rendering it unable to carry the abnormal signals. Not all patients with atrial fibrillation are candidates for the ablation procedure. Your doctor will determine if you are an appropriate candidate.



Atrial Fibrillation Ablation (Pulmonary Vein Isolation) FAQs

Who is a good candidate for the procedure?

Not everyone with atrial fibrillation is a candidate for an atrial fibrillation ablation, and patients will need to be screened to determine if it's the right option for them. The best candidate for an atrial fibrillation ablation:

1. **Is highly symptomatic** - The reason the procedure is performed is to relieve patients of the symptoms caused by atrial fibrillation.
2. **Has *paroxysmal* atrial fibrillation (a-fib that starts and stops on its own, without intervention)** - Patients with persistent atrial fibrillation tend to have less durable results.
3. **Does not have a dilated left atrium** - This is the chamber where atrial fibrillation starts. The more dilated, the less likely a patient will stay out of atrial fibrillation whether treated by medications or ablation.
4. **Has failed antiarrhythmic drug therapy** - By current guidelines, an attempt should be made to control atrial fibrillation with medications before proceeding with an ablation. If a patient cannot tolerate the medications or if they continue to have atrial fibrillation on the medications, ablation may then become an option.
5. **Is under the age of 70** - Although this is not absolute, age is a factor because the heart tends to "remodel" as we age. Above the age of 70, this remodeling can become permanent, and can make it less likely the patient will stay out of atrial fibrillation.

If you do not meet all of the above criteria, your chances of having a successful outcome will be decreased.

It should be reinforced that the whole reason to perform this procedure is to eliminate symptoms and improve your quality of life. *The procedure is not performed for the sole purpose of discontinuing medications.*

What is the goal of an atrial fibrillation ablation?

Although atrial fibrillation is the most common arrhythmia we see, its mechanism is still not completely understood. Research has shown that atrial fibrillation commonly originates in the pulmonary veins (usually there are four), that return blood to the left top chamber (atrium) of the heart from the lungs. Within these pulmonary veins, many electrical signals can occur simultaneously, and travel into the heart causing atrial fibrillation. The goal of the procedure is to electrically "isolate" these veins from the heart by building a "road block" of scar around the veins (this is why the procedure is called a *pulmonary vein isolation*), thus eliminating or significantly decreasing the occurrence of atrial fibrillation.



How successful is an atrial fibrillation ablation?

This is dependent upon several different factors, including meeting the above criteria as an acceptable candidate, as well as individual characteristics of the patient and their anatomy. Published data reports success rates between 60-80% in optimal candidates. Even optimal patients may require a repeat procedure. This will be discussed in detail during your consultation.

What are the risks of the procedure?

The overall risks of an atrial fibrillation ablation are very low, but rarely complications can occur. This will be discussed in detail during your consultation.

What testing is needed before the procedure?

Along with preoperative bloodwork, a CT scan of the heart will be done. You will also need to have a transesophageal echocardiogram (TEE) prior to the procedure (under anesthesia, an ultrasound probe is inserted into the esophagus) to make sure there are no blood clots within the heart.

Will I be asleep for the procedure?

Atrial fibrillation ablations are performed under general anesthesia, so you will be asleep and comfortable throughout the procedure.

How is the procedure performed?

After being put under anesthesia, several catheters are advanced through the groins and into the right top chamber of the heart. One of the catheters is used to gain access to the left top chamber. Electrical measurements are taken, and a detailed map of the heart is made in conjunction with the CT scan of the heart you had leading up to the procedure. Heat (radiofrequency) or freezing energy (cryoablation) is then used to create a small scar on the heart tissue surrounding the pulmonary veins. Further testing is performed, and when the veins are electrically isolated from the heart, the catheters are removed. This will be discussed in further detail during your consultation.



How long will I need to stay in the hospital?

In general, most patients spend 1-2 nights in the hospital. Some patients are admitted the day prior to the procedure, while others are admitted the day of, depending on the individual patient characteristics.

What is the recovery like after an atrial fibrillation ablation?

Most patients can resume their normal activity a few days after the procedure, as tolerated. *All* patients will need to be on blood thinners for about three months after the procedure, as there can be a slightly higher risk of clot formation during this time.

It is not unusual in the first three months after an atrial fibrillation ablation for patients to experience palpitations. This is due to temporary swelling and irritation that result from the ablation. In fact, some patients experience episodes of atrial fibrillation and other atrial arrhythmias during this period; *this is all a normal part of the healing process.* For this reason, most patients are placed on antiarrhythmic medication during this healing period.

Will I be able to stop blood thinner and antiarrhythmic medications after the ablation?

You will be seen for followup at 4-6 weeks after the ablation, then 3 months after the ablation. The need to continue these medications will be assessed, on a case-by-case basis, at the three month appointment. In most cases, the antiarrhythmic medication will be discontinued at this time. Discontinuation of blood thinners will be determined by the patient's overall stroke risk. If a patient is at elevated risk for stroke before the procedure, these risks remain over the longterm, and blood thinners should be continued; lower risk patients may only need to take aspirin. *It is important to remember that this procedure is not performed for the reason of discontinuing blood thinners; it is performed to alleviate symptoms.*

Please see the “General Electrophysiology Study & Ablation FAQs” for more information.

Additional helpful information can be found at:

The Berks Cardiologists website	www.berkscardiologists.com
Stop Afib (a website for patients)	www.stopafib.org
The Heart Rhythm Society	www.hrsonline.org