

Atrial Fibrillation Cardioversion at the Gates Vascular Institute What You Should Know

Before the Procedure

- You must fast (no food) 6 hours before scheduled procedure time.
- Medications can be taken before procedure with a sip of water.
- Do not stop taking your blood thinners prior. Continue as prescribed.
- If you use a CPAP machine for sleep apnea, please bring to the hospital with you.
- Please make arrangements for a ride home.
- Please arrive at Gates Vascular Institute (875 Ellicott Street, Buffalo NY 14203) TWO HOURS before your scheduled procedure time.
- You will be checked in and have a patient room ready for you and your loved ones.

Potential Risks and Complications

- Potential complications include:
 - Stroke
 - Onset of a different abnormal heart rhythm
 - Skin burns

The cumulative risk of these complications is < 1%

During the Procedure

- You will be brought to the procedure holding area. Here the nurses will place an IV, obtain any necessary blood work, and obtain some brief medical information from you.
- Sticky pads will be placed on your chest so the atrial fibrillation staff can monitor your heart rate during the procedure.
- The cardioversion may be done in the procedure holding area or you may be moved to another procedure room.
- Dr. Bhatia will perform a transesophageal echocardiogram (TEE) prior to cardioversion (if you have not been on uninterrupted blood thinners for a minimum of 3 weeks). Dr. Bhatia will place a probe down your throat (esophagus) to look at your heart. This is done to ensure there are no blood clots in the top chamber of your heart (atria) that would put you at risk for stroke. You will be sedated (but arousable) for the TEE.
- You will be given some sedation medication to put you “to sleep” for a brief moment while a synchronized shock is delivered.
 - You will be sedated for this portion. Most people do not remember the preparation or procedure due to the medications used. The atrial fibrillation team strives to make your procedure a comfortable and pleasant experience.

After the Procedure

- Your loved ones will receive a phone call in your patient room, immediately following the procedure to keep them updated.
- You will be brought down to your room to recover with your loved ones.
- A provider from the Atrial fibrillation team will be down within a few hours to check on you and go over discharge with you.
- You may resume driving and regular activity the next day.
- If you were placed on antiarrhythmic medications you may be instructed to continue these for 1-3 months or longer.

- If you were placed on anticoagulants you will take these daily for a minimum of 4 weeks. Depending on your risk factors, you may need to be on anticoagulants long-term to help prevent stroke.
- Your heart may go back into atrial fibrillation after your cardioversion. If so, contact the Atrial Fibrillation Clinic 859-AFIB (2342) and further treatment options will be discussed.

Follow up appointments

- 2-3 weeks after cardioversion
- 3 months after cardioversion
- 1 year after cardioversion

This follow ups may change on a patient to patient basis.

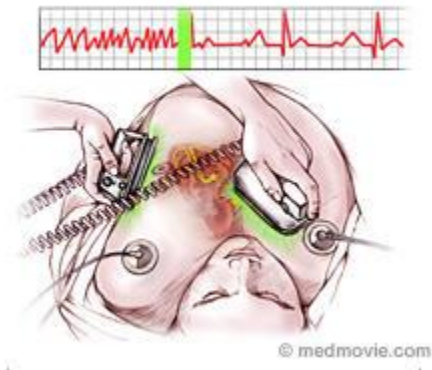
Please feel free to call the Atrial Fibrillation Clinic with any questions or concerns.

Your Atrial Fibrillation Team

Cardioversion

Cardioversion is a corrective procedure where an electrical shock is delivered to the heart to convert, or change, an abnormal heart rhythm back to normal sinus rhythm. Most elective or "non-emergency" cardioversions are performed to treat atrial fibrillation (A Fib) or atrial flutter (AFL), non-life threatening abnormal rhythms in the top of the heart. Cardioversion is also used in emergency situations to correct an abnormal rhythm when it is accompanied by faintness, Low Blood Pressure, chest pain, difficulty breathing, or loss of consciousness.

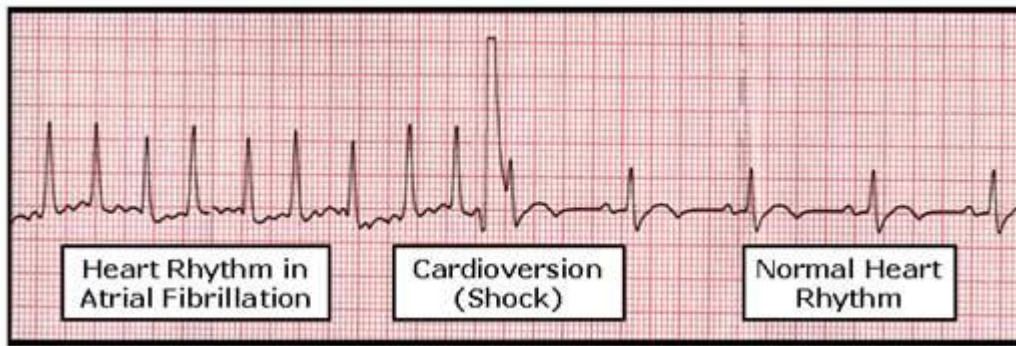
What is Cardioversion?



Each normal heartbeat starts in an area of the heart known as the sinus node, located in the upper right chamber of the heart (right atrium). The sinus node sends organized electrical signals through the heart resulting in a perfectly timed, rhythmic heartbeat. In people with atrial fibrillation however, this electrical signal is chaotic, causing the atria to fibrillate (or "quiver"). This typically results in a fast and irregular heartbeat. While some people have no symptoms, others may experience shortness of breath, lightheadedness and fatigue. Depending on your specific medical history and symptoms, your doctor may recommend a cardioversion to return your heart to normal sinus rhythm.

Types of Cardioversion

- **Chemical cardioversion** – Antiarrhythmic medications can be used to restore the heart's normal rhythm. Antiarrhythmic medications work by altering the flow of electricity through the heart. Depending on severity of symptoms, underlying heart disease and the specific medication to be used, the chemical conversion may be done as an outpatient, or in the hospital under monitoring.
- **Electrical cardioversion**– Also known as "direct-current" or DC cardioversion, a synchronized (perfectly timed) electrical shock is delivered through the chest wall to the heart through special electrodes or paddles that are applied to the skin of the chest and back. The goal of the procedure is to disrupt the abnormal electrical circuit(s) in the heart and thereby to reset the heart to normal rhythm. This split-second interruption of the abnormal beat allows the heart's electrical system to regain control and restore a normal heartbeat. Electrical cardioversion is performed in a hospital setting where oxygen levels, blood pressure and heart rhythm are closely monitored.



Normal sinus rhythm can be restored more than 90 percent of the time; however, the atrial fibrillation or other abnormal rhythms may recur over time. Your doctor may prescribe medications or recommend catheter ablation to reduce the risk of atrial fibrillation recurrence.

Blood clots and Anticoagulation

Because the upper chambers of the heart are fibrillating (quivering) rather than squeezing in people with atrial fibrillation, there is a risk that blood clots may form. The process of restoring a normal rhythm could dislodge a blood clot from the heart resulting in a stroke.

To help prevent blood clots and reduce the potential for stroke, the blood is thinned with medications called anticoagulants.

In a patient with A Fib or A flutter that has been present for more than 48 hours, the blood must be adequately thinned for at least 3-4 weeks prior to the procedure. Alternatively, a transesophageal echocardiogram (TEE) can be performed to make sure there is no blood clot in the atrium. During a TEE, a special probe is placed in the esophagus which allows your doctor to directly visualize the heart (atria). Because it takes many hours for blood clots to form, cardioversion can be safely performed without blood-thinning medication in patients who have been in an atrial arrhythmia for less than 48 hours.

Typically, anticoagulation is continued after the cardioversion for a minimum of 4 weeks, often longer.

<http://www.hrsonline.org/Patient-Resources/Treatment/Cardioversion>