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

Pre-Procedure Testing

Computed Tomography Angiography (CTA)

- You will need to have a CTA 2 days prior to your cryoablation. (The atrial fibrillation staff will obtain prior authorization from your insurance company).
    - Please let the atrial fibrillation clinic know if you have a history of Kidney Disease and/or Diabetes
    - If you have an allergy to: Contrast Dye (contrast), Beta-blockers (Metoprolol), or sublingual nitrate please notify your treatment team and the CT department.
    - If you have an allergy to contrast dye, prednisone will be ordered for you to take prior to your procedure.
        - First dose- Prednisone 50 mg ×1 day before your procedure
        - Second dose- Prednisone 50 mg ×1 hour prior to the procedure
    - You must fast (no food) for 4 hours before scheduled procedure time.
    - Medications can be taken before procedure with a sip of water.
    - Do not drink any caffeinated beverages on the day before of the day of the procedure (including coffee, tea, energy drinks, caffeinated sodas.)
    - Do not take any energy or diet pills on the day before or day of the procedure.
    - Do not use Viagra or any similar medication for 3 days before the procedure. (It is not compatible with medications you'll receive during the CTA).
    - If you are diabetic please ask for specific instructions about your medications.
    - Please wear loose comfortable clothing for this test.
    - Please bring your co-pay, insurance card, and your current medication list (with dosage) to your appointment.
    - Please arrive at Buffalo General Hospital Imaging Department (100 High Street, Buffalo, NY 14203) ONE HOUR prior to exam time.
    - Please make arrangements for someone to drive you home after your procedure.

Potential Risks and Complications of CTA

- Potential complications include:
    - Allergic reaction
    - Tissue damage
    - Kidney damage

During the Procedure

- Please remove all piercings and leave all jewelry and valuables at home.
- You will be checked in with reception at the Imaging Department
- You may be asked to change into a patient gown. If so a gown will be provided for you.
- The nurse will establish an IV line.
- A cardiac monitor we placed on your chest to monitor your vital signs, and oxygen will be given through a nasal cannula.
- You will be given medications (beta blocker) to slightly lower your heart rate 30 minutes to one hour before the exam. (This may cause some people to feel dizzy with sudden movement.)

- You will lie on a scan table that slides into a large, circular opening of the scanning machine. Pillows and straps may be used to prevent movement during the procedure.
- The technologist will be in another room where the scanner controls are located. However, you will be in constant sight of the technologist through a window. Speakers inside the scanner will enable the technologist to communicate with and hear you. You may have a call button so that you can let the technologist know if you have any problems during the procedure.
- As the scanner begins to rotate around you, x-rays will pass through the body for a short amount of time. You will hear clicking sounds, which are normal.
- It will be important that you will remain very still during the procedure. You will be asked to hold your breath for about 10-15 seconds, 3 times.
- Contrast (dye) is injected through the IV line to enhance the visibility of the heart blood vessels. During the contrast injection you may feel: a flushing sensation, salty or metallic taste in the mouth, a brief headache, or nausea and/or vomiting (these effects usually last for only a few minutes and are normal.)
- You may also be given nitroglycerin under your tongue during the exam.
- When the procedure is complete, you'll be removed from the scanner and your IV line will be removed.
- You will be advised to drink 3-4 glasses of water after the exam.
- Your results will be sent over to your atrial fibrillation team.

Blood work

- 1 week prior to your CTA, you will need to have blood work and an EKG.
- The atrial fibrillation staff will call you to schedule your appointment for your CTA and cryoablation. At this time, please let the staff know where you would like to have these tests completed.
- Please let the atrial fibrillation staff know if you are currently on any blood thinners or if you have a pacemaker or any implantable device (we will make a follow-up appointment with the device clinic the same day you have your follow-up appointment with your provider).

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

Before the Procedure

- You must fast (no food) after midnight on the evening prior to your procedure.
- Medications can be taken before procedure with a sip of water. If there are any medications that require you to take with food, please wait until after your procedure to take them.
- The atrial fibrillation staff will instruct you, at time of appointment scheduling, if any blood thinners need to be held prior to day of procedure.
- Please bring an updated and accurate list of medications to the hospital. Please include the name of the medication, strength and a number times taken during the day. It is not necessary to bring your medications with due to the hospital.
- If you have an allergy to contrast dye, prednisone will be ordered for you to take prior to your procedure.
    - First dose- Prednisone 50 mg ×1 day before your procedure
    - Second dose- Prednisone 50 mg ×1 hour prior to the procedure
- If you use a CPAP machine for sleep apnea, please bring to the hospital with you.
- This procedure may require you to stay overnight. Therefore, please bring an overnight bag with you to the hospital.
- Please make arrangements for someone to drive you home for when you are discharged.
- Please arrive at Gates Vascular Institute (875 Ellicott St., Buffalo NY 14203) TWO HOURS before your scheduled procedure time.
- You will be checked in on arrival and will have the patient ready for you and your loved ones.

Potential Risks and Complications

- Potential complications include:
    - Hematoma (bleeding at the groin)
    - Stroke
    - Cardiac Tamponade (blood around the heart)
    - Pulmonary Vein Stenosis (obstruction [blockage] in the blood vessels bring oxygen-rich blood from the lungs back to the heart.
    - Atrioesophageal Fistula (passage between throat [esophagus] in the left upper chamber [atria] of the heart)
    - Phrenic nerve palsy (paralysis [loss of movement] of the diaphragm).
    - Respiratory Depression (reduced number of breaths) and other general anesthesia complications

The cumulative risk of these complications of less than 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.
- Before the procedure your anesthesiologist (specially trained doctor or nurse) will talk with you and may ask questions about: your health history, medications, allergies, and past experiences with anesthesia. Your anesthesiologist will be able to answer any further questions you may have at that time.
- When the procedure room is ready you will be brought over and introduced to the rest of your atrial fibrillation treatment team.

- You may have a transesophageal echocardiogram (TEE) immediately before your ablation. This is done by placing 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 for the TEE. <u>If you had a CTA within 48 hours a TEE may not be needed.</u>
- The treatment team will then:
    - Shave and clean your groin (if not yet done by previous staff).
    - Place sticky patches on your chest to help monitor your heart during procedures and assist with the 3D mapping.
- Anesthesia will then place you under general anesthesia (a medically induced state of unconsciousness). General anesthesia prevents your brain from processing pain and from remembering what happened during her surgery. Anesthesia will monitor your body's vital functions and manage your breathing for the duration of the procedure
- Once you are asleep the anesthesiologist will:
    - Place a nasal temp probe down your nose to monitor temperatures in your throat (esophagus).
    - Place a special IV that goes in the artery (instead of the vein) in your wrist.
    - Place a breathing tube through your mouth into your windpipe. This is known as intubation.

After the Procedure

- You will be brought down to the recovery room (PACU) for approximately 45 minutes to one hour.
- To decrease the risk of bleeding at the groin (site of catheter insertion) the atrial fibrillation team asks that you do not bend your legs for at least 2 hours after the procedure. Nursing staff will be available to assist you with any needs.
- A provider from the atrial fibrillation team will be down within a few hours to check on you.
- Most patients will spend the night and be discharged the next day.
- No strenuous activity for 5 days. May resume driving and light activity the next day.
- You may have recurrence of atrial fibrillation within the first 3 months, this is normal and not considered an ablation failure. If you feel you have been in atrial fibrillation longer than 24 hours (within first 3 months), please call the Afib Clinic at 859-AFIB (2342). A cardioversion (synchronized shock) may be done to assist getting you into a normal rhythm.
- If you were placed on antiarrhythmic medications you may be instructed to continue these for 3 months or longer.
- If you were placed on anticoagulants you will take these daily for a minimum of 3 months. Depending on your risk factors, you may need to be on anticoagulants long-term to help prevent stroke.

<u>Follow up appointments</u>

- 1 month after ablation
- 3 months after ablation
- 6 months after ablation
- After 6 months you may be asked to have routine follow ups every 6 months to 1 year.

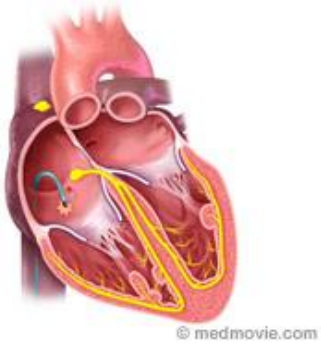
This follow ups may change on a patient to patient basis.

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

Your Atrial Fibrillation Team

Catheter Ablation

A normal heartbeat is controlled by a smooth, constant flow of electricity through the heart. A short-circuit anywhere along this electrical pathway can disrupt the normal flow of signals, causing an arrhythmia (an irregular heartbeat). Cardiac ablation is a procedure used to destroy these short-circuits and restore normal rhythm, or to block damaged electrical pathways from sending faulty signals to the rest of the heart.



What is an Ablation?

Ablation is performed by an electrophysiologist (EP), a doctor specializing in diagnosing and treating heart rhythm disorders. During catheter ablation, catheters (narrow, flexible tubes) are inserted into a blood vessel, often through a site in the groin (upper thigh) or neck, and guided through the vein until they reach the heart. Small electrodes on the tip of the catheters stimulate and record the heart's activity. This test, called an electrophysiology study (EPS), allows the doctor to pinpoint the exact location of the short circuit. Once the location is confirmed, the short circuit is either destroyed (to reopen the electrical pathway) or blocked (to prevent it from sending faulty signals to the rest of the heart). This is done by sending energy through the catheters to destroy a small amount of tissue at the site. The energy may be either hot (radio frequency energy), which cauterizes the tissue, or extremely cold, which freezes or "cryoablates" it.

Is an Ablation Right for You?

Ablation is used to treat many types of arrhythmias. It is often successful in eliminating the need for open-heart surgery or long-term drug therapy. Ablation may be an option in any of these cases:

- If your arrhythmia cannot be controlled with lifestyle changes or medication.
- If you cannot tolerate or do not want to take medication to treat your arrhythmia.

http://www.hrsonline.org/Patient-Resources/Treatment/Catheter-Ablation