Do not lift more than ten pounds (about the weight of a gallon of milk), pull, or participate in vigorous activity for at least one week following the procedure. Minimize riding in the car as much as possible during this time. You may, however, walk and participate in other low-level activities immediately.

It is not uncommon to have palpitations after an ablation due to swelling and healing of the heart tissue. This may occur for up to three months after the procedure and is usually mild. If bothersome, it can often be managed with medications. If you experience chest pain, shortness of breath, lightheadedness, or fainting spells, contact us immediately or seek emergency medical treatment.

Rarely, atrial fibrillation ablation can damage the esophagus (the tube through which food passes from your mouth to your stomach). You will need to take medications for one month after the ablation to help prevent complications with the esophagus. If you do not already take a proton pump inhibitor (PPI), such as Prilosec or Protonix, one will be prescribed for you. You will also be given a prescription for sucralfate, to be taken three times daily for one month.

If necessary, follow-up appointments and testing will be scheduled before you leave the hospital.

SPECIAL INSTRUCTIONS

HOW THE HEART WORKS

The heart is a muscular pump with four chambers. The upper chambers are called atria, and the lower chambers are called ventricles. Blood flows from the body into the heart, and is pumped into the lungs where it receives oxygen. Blood is returned to the heart where it is pumped out to all parts of the body through arteries. Veins then carry the blood back to the heart, and the cycle repeats.

The electrical activity of the heart sends signals to make the chambers of the heart beat or pump in harmony. This electrical activity is controlled by the sinoatrial (SA) node, often called the ‘pacemaker’ of the heart. Electrical signals travel through both atria and forward to the atrioventricular (AV) node. The AV node sends signals down to the ventricles. Abnormalities, disease, and age can affect the heart's electrical system, causing heart rates that are too slow, too fast, irregular, or life-threatening.
Cardiac Ablations

Normally, the electrical activity of the heart causes it to beat in a regular pattern. A problem anywhere along the electrical pathway causes an arrhythmia, or heart rhythm disturbance. Sometimes, the electrical impulse travels the same pathway repeatedly, creating a short circuit that disturbs normal heart rhythms. Medication may help, but in some cases, the most effective treatment is cardiac ablation. During ablation, bursts of energy (usually radiofrequency energy) destroy very small areas of heart tissue that give rise to abnormal electrical signals.

**PREPARATION FOR PROCEDURE**

- Tell your physician or nurse of any food or drug allergies at the time your procedure is scheduled.
- Tell your physician or nurse if you are taking any blood thinner medications.
- Tell your physician if you may be pregnant.
- You may need to have an EKG, blood work, chest X-ray, and/or urinalysis prior to the procedure. Certain insurance companies may require you to have this done by your primary care physician.
- You will be contacted by our staff the day before your procedure to tell you what time to arrive at the Medical Center, to provide you with additional instructions, and to review medications you should or should not take.

**DAY OF THE PROCEDURE**

- Do not eat anything after midnight.
- Do not take morning dose of diuretic (water pill).
- Take any morning medication (except diuretic) with a small amount of water.
- If you take insulin or oral medication for diabetes, you will be given instructions about modifying your dose.
- If you take blood thinners, you may be instructed to stop or adjust your dose prior to the procedure.
- Bring all your medication bottles with you the day of your procedure.
- Park in the Centerview Garage and take a shuttle to the North Entrance. Patients may also be dropped off at the North Entrance. Drivers may park in the Centerview Garage and take the shuttle to the North Entrance. Check-in for the Heart and Vascular Institute is on the left, just inside that entrance.

**DURING THE PROCEDURE**

Catheter ablations are performed in a room called an electrophysiology (EP) lab. Although the procedure is not considered major surgery, this room offers the same sterile conditions found in an operating room. The procedure may last one hour to several hours.

You are given a sedative and local anesthetic to minimize pain and discomfort. A health care provider cleans the skin on your groin and removes any hair in the area. Once the skin is washed, prepped, and numbed, small needles are used to puncture the vein or artery in the groin. Catheters are inserted through these punctures and guided to the heart. Your doctor uses X-ray guidance to place the wires in the correct location in your heart.

Once the catheters are in place, electrodes on the catheters detect and record the heart’s electrical activity and locate any abnormal heartbeats. This helps the doctor identify the type of arrhythmia you have and where it begins in your heart.

**FOLLOWING THE PROCEDURE**

Expect to stay in the hospital overnight so your heartbeat can be monitored.

You can remove the sterile bandages the morning after the procedure. Keep the groin site dry. You may shower, but do not submerge the groin in water for two weeks. Wash the incision with mild soap and water and keep it dry. Do not use lotions, creams, or powders in this area. Keep the incision uncovered.

If an abnormality is identified, or if the cause of the irregular rhythm is already known, catheter ablation may be performed to treat the arrhythmia. Energy is used to destroy a small amount of tissue, eroding the disturbance of electrical flow through the heart and restoring a normal heart rhythm. This energy may take the form of radiofrequency energy, which cauterizes the tissue, or intense cold, which freezes, or cryoablates the tissue.

For many types of arrhythmias, catheter ablation is successful in 95 to 98 percent of cases. For atrial fibrillation, ablation is successful about 70 percent of the time. A repeat procedure is required for some patients.

**RISKS**

An ablation is a relatively safe procedure that involves some risks. There is risk for arrhythmias that may require an external electric shock to restore the normal heart beat. There is also a small risk of bleeding, blood clots, injury to a blood vessel, and infection. There is a 1 percent risk of stroke and a 1 percent risk of needing a pacemaker after an ablation. There is a less than 1 percent risk of other serious complications such as, heart attack, or the need for open heart surgery. The risk of death is between 1 in 1000 and 1 in 2000. There is a very rare, but possible, fatal complication of ablation of atrial fibrillation due to an abnormal communication between the heart and the esophagus. There is also a risk of partial obstruction of the pulmonary veins (pulmonary stenosis).

**VIEW INSIDE ELECTROPHYSIOLOGY LAB AND CONTROL ROOM AT PENN STATE HERSEY MEDICAL CENTER**