

## ELECTRICAL CARIOVERSION

Name: \_\_\_\_\_

DOB: \_\_\_\_/\_\_\_\_/\_\_\_\_

Date of Test: \_\_\_\_/\_\_\_\_/\_\_\_\_

Time: \_\_\_\_:\_\_\_\_ AM/PM

### **Introduction**

A cardioversion is done to change or “convert” an irregular heartbeat to a normal regular rhythm.

### **The Heart**

The heart is a muscular organ about the size of a closed fist. It pumps oxygen-rich blood to the body. For the heart to do its work, it needs a “spark plug” or electrical impulse or signal from special tissue (sinus node) in the heart. The electrical impulse causes the heart muscle to contract. The hearts electrical system and muscle work together to effectively pump blood. Usually the heart beats regularly, but sometimes the heart beats irregularly. An irregular heart beat can occur after a heart attack or heart surgery. It may also occur with heart valve disease or other diseases not related to the heart. One cause of an irregular heart beat is atrial fibrillation. Some people with atrial fibrillation have no symptoms. Others may feel palpitations, shortness of breath, weakness or fatigue during episodes of atrial fibrillation.

Your physician may first use medicines to convert your atrial fibrillation to a regular rhythm. If medicines do not work, an electrical cardioversion may be needed. This procedure uses small amounts of electrical current given through patches or paddles placed on the chest. The electrical current is used to restore your heart to a normal regular rhythm.

### **Before the Procedure**

Your physician may ask you to start anticoagulation medication, or blood thinner, (i.e. Coumadin, warfarin, Pradaxa, Xarelto or Eliquis) at least 4 weeks before a cardioversion is attempted. You may asked to have your blood work checked weekly at a laboratory. The blood test is called an INR and will show how much your blood has thinned. Because the atria (top chambers) are quivering and not beating/squeezing properly, there is an increased possibility that you might develop blood clots in your heart. The thinner your blood is, the less likely you are to develop blood clots. Once you have had 3-4 weeks of adequately thin blood, you will be scheduled for the cardioversion. In some rare cases, your physician might determine that you need a cardioversion right away and will order a TEE (Trans-Esophageal Echocardiogram) to make sure there are no blood clots, so that you can have the cardioversion without waiting 4 weeks to thin the blood.

## **What is a TEE?**

A TEE is a procedure that involves threading a probe down the esophagus (the tube that connects the mouth with the stomach) to allow the physician to view the heart structures including valves and chambers in great detail. This procedure is sometimes done before a cardioversion to check for blood clots within the heart. If a clot is discovered the cardioversion will not be done. You will be asked to swallow a spray to numb your mouth and throat. The nurse will also give you a sedative to prevent gagging and make you drowsy during the procedure. The physician will need you to remain conscious to determine that you are able to swallow. The nurse will have suction readily available for any secretions you may develop in your mouth and assist you in removing these. The procedure lasts about 30 minutes

## **The Cardioversion Procedure**

When you are completely asleep, the physician will administer a very brief current of electricity. This electrical stimulation is intended to stop the irregular heartbeat and replace it with a normal heart rhythm. This is called converting the rhythm. The physician will administer the electrical current one to three times. Most people will convert to a normal rhythm with only one shock. If you do not convert after three attempts, the physician will not attempt any further electrical stimulation. The entire process lasts only a few minutes.

The sedative medication will take from 10 minutes to two hours to wear off depending on the medication used and your individual response. The nurse will keep you in the room until you are completely awake and are able to sit up and talk. The nurse will make any follow-up appointments at this time and review any medication changes with you and your family members. On rare occasions the physician will administer special medications that assist in converting an irregular heart rhythm. If this occurs you may need to stay longer and be moved to another area that allows close monitoring of your heart rhythm for a few hours. This is a precaution that is used whenever this medication is administered. After you are fully awake, you will be escorted to your vehicle to go home. You will be asked to have someone drive you home and to plan a day of rest after the procedure. You may apply lotion to any reddened areas on your chest. You will have an appointment with our office in about 1 week after the procedure. Typically, if you have been on blood thinners, these will continue until you see the physician on follow-up.

## **How long will the cardioversion last?**

There is not specific way to tell. It depends on several factors including how long you were in atrial fibrillation, the condition of your heart, and your overall medical condition.

**Nothing to eat or drink after midnight.**

**You may take your medications with a small sip of water.**

**BRING YOUR MEDICATIONS AND OVERNIGHT BAG TO THE HOSPITAL WITH YOU.**

**PLEASE ARRANGE FOR SOMEONE TO DRIVE YOU HOME.**