Cardioversion

A cardioversion is done to change or convert an irregular heartbeat to a normal regular rhythm. This information will help you understand how your heart works and what to expect before, during and after cardioversion. If you have any questions or concerns, please ask your physician or nurse.

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 to start a heartbeat. It receives this impulse or signal from special tissue (sinus node) in the heart. The electrical impulse causes the heart muscle to contract. The heart’s electrical system and muscle work together to pump blood effectively. Usually, the heart beats regularly. Sometimes, the heart beats irregularly. An irregular heartbeat can occur after heart attack or heart surgery. It also may occur with heart valve disease or other diseases not related to the heart.

Atrial fibrillation

One cause of an irregular heartbeat 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 change 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

To prepare for the procedure, you may have blood tests, an electrocardiogram (ECG) and a chest X-ray. The physician doing the cardioversion will explain the procedure and its benefits and risks. After your questions are answered, you will be asked to sign a written consent form. An anesthesiologist will discuss the medicine used during the procedure to relax you.

The night before the procedure, do not eat or drink anything after midnight. You may take any medicine ordered by your physician with small sips of water.
Before the cardioversion, a nurse will place an IV (into the vein) line in your hand or arm. The IV is used to give medicines and fluids. A blood pressure cuff will be placed on your arm, and a monitor, similar to an ECG, will check your heart rhythm during the procedure. You also will be asked to remove eyeglasses, dentures or partial plates, and to empty your bladder.

**During the procedure**

The procedure is generally done in your hospital room. You will be connected to an additional cardiac monitor and 2 patches will be placed on your chest. These patches are connected to a cardioversion/defibrillator machine that supplies the electrical current. An oxygen mask will be placed over your nose and mouth as the anesthesiologist gives you IV medicine to relax you. Once you are relaxed and asleep, a small shock will be given using the patches. One or more shocks may be needed to convert your heart to a normal rhythm. Once the procedure is completed, you will be awakened. The procedure lasts less than 1 hour. You will probably not be aware of the procedure or remember what happened.

**After the procedure**

When the cardioversion is finished, the nurse will check your blood pressure, heart rate and heart rhythm frequently. You will need to remain in bed for 2 to 4 hours, depending on your physician’s orders. Once you are fully awake and able to easily swallow water, you may resume your regular diet. Your heart rhythm will be monitored during this time and an ECG will be done. After the patches are removed from your chest, you may notice some redness, pain, irritation or itching. Sometimes, creams may be used to reduce this discomfort.

**Discharge guidelines**

Do not drive for 24 hours after the procedure. There are no other activity restrictions. Your physician will discuss any needed medicines and follow-up visits.

Contact the Electrophysiology Department at 312.926.4753 with any questions or concerns.

**Northwestern Medicine – Health Information Resources**

For more information, contact Northwestern Memorial Hospital’s Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.