

## **ELECTRICAL CARDIOVERSION**

Electrical cardioversion is a method of restoring certain types of abnormal heart rhythm (arrhythmia) back to a normal rhythm (sinus rhythm) with the delivery of an electric shock to the heart. This can be done either externally or for patients with internal defibrillators, it can be done internally.

An **external cardioversion** can be done either in an emergency situation or electively. Defibrillator paddles are placed on the chest and a shock is delivered to the heart. This briefly stops the electrical activity of the heart and allows the heart to reset itself into a normal rhythm.

**Internal cardioversion** requires a device called an implantable cardioverter defibrillator (ICD). ICDs consist of a pulse generator and leads. The generator is implanted under the skin and the wires connect the generator to the heart. This device will have been implanted previously in certain patients for treating particular arrhythmias and in these patients, electrical cardioversion can be instigated through their device.

### **What to Expect:**

- You will have an ECG (electrocardiogram) to confirm the condition – this test records the heart activity by measuring the electrical currents of the heart.
- You will be placed on Warfarin (if you are not already) for at least 4-5 weeks prior to your cardioversion. Your dosage will be administered by a pathology company and your blood monitored weekly. Your INR (blood test result which is a measure of how thin the blood is) must remain at 2 or above 2 consistently for 4 consecutive weeks prior to cardioversion.
- You may be required to undergo a transoesophageal echocardiogram prior to the procedure to determine whether any blood clots or thrombus exist in the heart.
- You will be admitted to hospital as a day patient on the morning of your cardioversion and you will usually be required to fast (nothing to eat or drink) for 6 hours pre-cardioversion. You will be given instructions before your admission.
- A short-acting general anaesthetic will be administered before the cardioversion takes place. You will have continuous cardiac monitoring and an IV line will be placed to administer medications or fluids.
- The procedure takes less than 30 minutes.
- After the procedure, you will be monitored in the recovery room of the hospital. Once the sedation has worn off and you are stable, you will be allowed to go home but you must have someone to accompany you.
- You will be required to remain on Warfarin for a few weeks after the cardioversion. You may also be put on anti-arrhythmic medication to help prevent the arrhythmia from returning.
- An appointment will be made for you to see your cardiologist 6-8 weeks after your cardioversion at which time you will undergo an ECG and your medication will be reviewed.
- You will be able to drive and return to all normal activities the day following your cardioversion.

### **Possible Complications:**

**Possible complications of cardioversion are very rare but may include:**

- Blood clots that can cause a stroke or other organ damage. This risk is minimised if the blood is correctly thinned.
- Bruising, burning or pain where the paddles were used.
- Resumption of the abnormal rhythm after a normal rhythm is established.

**Call your Doctor if any of the following occurs:**

- Blisters or redness on your chest.
- Sensation of your heart fluttering (palpitations).
- Lightheadedness, dizziness or confusion
- Cough, difficulty breathing, shortness of breath
- Chest pain or pain in your left arm or jaw
- Changes in vision or speech, difficulty walking or using your limbs, drooping facial muscles.

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