

Electrical Cardioversion

What is electrical cardioversion?

Electrical cardioversion is used to make your heart beat normally by passing an electric shock through the chest to the heart. The electric shock is used most often to revive a person when the heart stops. It restores normal heart rhythm and has saved many lives. It is a very safe way to change an abnormal heart rhythm to normal.

The single, rapid, high-voltage electric shock to the heart causes all the heart muscle cells to stop beating for a moment. This allows your heart to restart itself with a normal heart rhythm. The heart then beats normally again. To be successful, the shock must be delivered at just the right time during a heartbeat.

When is it used?

Abnormal heart rhythms (arrhythmias), such as atrial tachycardia and ventricular tachycardia, may cause very rapid heart rates. The heart rate may be so fast that the blood does not circulate well. For some people with coronary artery or heart valve disease, this fast heartbeat may be life threatening. Cardioversion can quickly restore normal circulation.

Some other rhythm problems, such as atrial flutter or atrial fibrillation, are not very fast but are abnormal and inefficient. If you are having problems because of the abnormal heart rhythm, your doctor might suggest treatment to return the heart rhythm to normal. Medicine is sometimes used to try to return the heart to a normal rhythm. When drugs don't work, your doctor might suggest cardioversion.

How do I prepare for electrical cardioversion?

If the arrhythmia is life threatening, cardioversion is done without delay or special preparation.

For a planned cardioversion, follow any instructions your healthcare provider may give you. You may eat a light meal, such as soup or salad, the night before the procedure. Do not eat or drink anything after midnight and the morning before the procedure.

Plan for your care and recovery after the procedure.

What happens during the procedure?

You will be given a tranquilizer and a sedative (a light general anesthetic). These drugs will relax your muscles and put you to sleep. You will not feel pain during the procedure. The healthcare provider will put electrodes on your chest and back and deliver an electric shock through your chest for a fraction of a second. The electrical charge passes through two large, hand-held electrode paddles or two large adhesive patches placed on your chest. Abnormal heart rhythms usually return to normal with the first shock, but more shocks may be needed. Your healthcare provider will check your heart rhythm with an electrocardiogram (ECG, or EKG).

You will probably be unconscious from the anesthesia for less than 5 minutes and will not remember the shock.

What happens after the procedure?

You will be monitored in the recovery room or coronary care unit for a short time. Your chest might be a little sore. You may have ringlike marks on your chest where the electrode paddles were placed. These marks will fade after several days.

When you are fully recovered from the anesthesia, you will probably be allowed to go home. Sometimes you may need to stay in the hospital overnight. The healthcare provider may prescribe drugs to help your heart keep its new rhythm.

Ask your healthcare provider what you should do to take care of yourself and when you should come back for a checkup.

What are the benefits of this procedure?

- Your heart usually returns to a normal beat, reducing discomfort and abnormal work for your heart.
- The procedure has fewer complications than treatment with most drugs.

What are some of the risks with this procedure?

- There are risks from the light general anesthesia, but harmful reactions rarely occur. Discuss these risks with your healthcare provider.
- The procedure may not be successful and your heart rhythm may not change.
- You may develop a small area of burn on your skin where the paddles were placed.

- A blood clot may become dislodged from the heart and cause a stroke.

Ask your healthcare provider how these risks apply to you.

When should I call my healthcare provider?

Call your healthcare provider right away if your heart rhythm becomes irregular or very rapid. Symptoms of a change in your heart rhythm are shortness of breath, chest pain or pressure, pounding in your chest, or dizziness.

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