

What is Electrical Cardioversion?

"These patches or these electrodes will go into our machine ..." – Medical Technician

Jane Jenkins has an irregular heartbeat called atrial fibrillation. To treat it, she's about to undergo a procedure known as electrical cardioversion.

"What we'll do is actually give your heart an electric shock from the front to back of your chest and that allows the natural electricity of the heart to restart." – Ramal Weragoda, MD Cardiac Electrophysiologist

Jane has had atrial fibrillation – or a-fib – for about two months. The condition results from chaotic electrical signals in the atria – or upper chambers – that cause the heart to beat out of rhythm.

"I get real short of breath. I can't walk very far without stopping." – Jane, Patient

Prior to the procedure your healthcare provider may prescribe a blood thinning medication in order to prevent blood clots. That's because a-fib increases the risk of clots, which can travel to the brain and cause a stroke.

Performing cardioversion if you have a clot can also put you at risk of a stroke. So, to check for clots before the procedure, healthcare providers may do a test called a transesophageal echocardiogram, or TEE.

"We place an esophageal echocardiogram probe, so it's about the size of my little finger. It goes through the mouth, down to the food pipe in the stomach and from there we can get crystal clear pictures of the inside just to make sure there's not a clot inside the heart." – Ramal Weragoda, MD Cardiac Electrophysiologist

Prior to cardioversion, you may also be prescribed medications that help steady your heartbeat.

Taking all your medication...including on the morning of your procedure, unless otherwise instructed by your provider... is key to preparing for your procedure. So is following all other instructions by your healthcare team, such as: Don't eat or drink after midnight the evening before the procedure, And avoid using lotions or creams on your skin.

"You don't want to put anything that's going to affect how those pads stick to your skin. If you're a man, you should expect to get your back and chest shaved before the procedure."

- Josh Lovelock, MD Cardiac Electrophysiologist

"You're going to feel a little bit of pressure in the I/V ..." – Anesthesiologist

Jane is being given medicine through an IV – or intravenous line – in her arm to make her sleepy. She won't feel discomfort during the procedure. Typically, one patch is applied to the back and another to the chest to deliver the electrical shocks.

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"The idea here is to get the heart, specifically the atria between the cardioversion pads."

– Ramal Weragoda, MD Cardiac Electrophysiologist

The actual cardioversion procedure takes only a few minutes. In most cases people don't feel or remember the shock.

"The shock is instantaneous. It's much less than a second. It may be about 200 milliseconds long."

– Ramal Weragoda, MD Cardiac Electrophysiologist

"We're charging. Ready? Everybody clear. Shocking...there we go!" – Medical Technician

Your doctor will check to see if the shock worked.

"Still looks like A-fib. Yea. (beeping) There we go. So, now she's back in the normal rhythm."

- Medical Technician

Sometimes more than one shock is needed to reset your heart rhythm. Most people will get back to normal rhythm right away, but in some cases a-fib returns. If that happens, your healthcare provider will discuss other treatment options with you.

"If everything goes well you can go home today." – Ramal Weragoda, MD Cardiac Electrophysiologist

Most people can go home the day of the procedure.

However, you may feel drowsy, so you won't be able to drive yourself home. Don't make any important business decisions or sign any legal documents the rest of the day. You may experience skin irritation where the shock is delivered. If so, your healthcare provider can recommend lotions that help.

"Severe headache, weakness or numbness..." – Medical Technician

Follow all of your discharge instructions including what signs and symptoms to look for and when you should call your healthcare provider. Most people can quickly return to normal activities after electrical cardioversion. That's definitely Jane's goal.

"Everything went really well. And we got those pads off already, too."

-- Ramal Weragoda, MD Cardiac Electrophysiologist

"Thank you." - Patient

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"You're welcome. Ok, we'll see you soon. You did good." - Doctor