

# Understanding Your ICD

When Maria was diagnosed with an abnormal heart rhythm and told she was at risk for sudden cardiac arrest, she learned she would need an implantable-cardioverter defibrillator – or ICD.

*"I had heard of them, and I had known people who had them, but I didn't really know what it did and why they had it." – Maria, Patient*

An ICD is an electronic device implanted in the body to restore the heart's natural rhythm. It has two parts. The main component is called the pulse generator. It contains a computer chip and battery. Connected to it are thin wires, called leads.

The pulse generator is implanted in the chest, below the collarbone. The leads are then threaded through a vein and attached to the inside walls of the heart's chambers. Depending on your condition, leads may be attached to one or more chambers of your heart.

These leads are always monitoring the electrical activity of your heart. If they sense an abnormally fast heart rhythm, they send a message to the generator, which produces electrical impulses.

*"A defibrillator is a very sophisticated device. It can treat a slow heartbeat by pacing the heart or it can treat the fast heartbeat by either pacing the heart out of that rhythm - it's called anti-tachycardia pacing - or it can deliver a shock." – Gabriel Breuer, MD Cardiac Electrophysiologist*

Shocks from an ICD can correct dangerous heart rhythms and reduce patients' risk of suffering a life-threatening heart event.

*"They still have to take medicines. They still have to be careful about their diet and try to stay healthy, but an ICD can, it's like an insurance policy. It can help to prevent you having what they call sudden cardiac death."*  
- Ramal Weragoda, MD Cardiologist

For Maria, her ICD was a far more attractive option than the transplant surgery her health care providers had been considering.

*"If I was not a candidate for this device, I have no idea what my life would be like right now. No idea. I don't even know if I'd be alive." – Maria, Patient*