

Ray Winterfield is working his way back to the dance floor after heart disease arrested his life.

When Ray Winterfield was diagnosed with a serious heart condition, he felt his life, as he had known it, was over.

technology overview

ICDs deliver therapies to treat potentially fatal heart rhythm disorders such as ventricular fibrillation, also known as cardiac arrest. The device consists of a case, battery, microprocessor and electrical circuit that is implanted surgically, most often as a day surgery procedure. Special insulated wires or "leads" are placed into the heart, via a vein, through an incision made in the upper chest.

The ICD continually monitors the patient's heart rhythm. When an abnormal rhythm is detected, the device delivers electrical therapy to restore the heart to a more normal rhythm.

All his life, Ray had been a vibrant, healthy person who loved to be active and was always the last to leave the dance floor at weddings and parties.

Ray was diagnosed in 2001 with heart disease and this severely limited his activities. Heart disease patients are at a higher risk of dying from a

fatal arrhythmia. Heart disease patients often require several medications to alleviate symptoms that impair their ability to perform daily activities.

Living with heart disease was very difficult. Stressful or emotional situations could result in an ambulance trip to the hospital emergency rooms.

After his last hospitalization in late 2005, Ray was ready to ask for a heart transplant. He was referred to another specialist who determined he was a good candidate for an Implantable Cardioverter-Defibrillator (ICD). In February, 2006, he had surgery to implant the device.

Within a week, he was confident he would be able to enjoy at least limited physical activity.

"Had the device been implanted in 2001, maybe I would have been able to continue working and contributing rather than being a burden on the health system, who knows?"



fast facts

- 40,000 Canadians die every year from heart disease, 20,000 from Sudden Cardiac Death.¹
- About 5,000 ICDs are implanted annually in Canada. About 90,000 patients could benefit from an ICD.²
- Only 16% of Canadians who are indicated for an ICD get one in Canada.³
- Chance of surviving a cardiac arrest in Canada: 5%. Every minute of delay before defibrillation reduces chance of survival by 10%.⁴
- Less than 50% of victims have symptoms before a cardiac arrest.⁴

¹ Canadian Journal of Cardiology. 16:Suppl C (June 2000)

² Simpson, et al. Canadian Journal of Cardiology. 21:Suppl A 20A (May 15, 2005)

³ Birnie D, Sambell C, Johansen H, Williams K, Lemery R, Green M, et al. "Use of Implantable Cardioverter Defibrillators in Canadian and U.S. Survivors of Out-of-Hospital Cardiac Arrest." Canadian Medical Association Journal. 177:1 41-46 (Jul 3, 2007)

⁴ Myerberg R, Castellanos A. "Cardiac Arrest and Sudden Cardiac Death," in Braunwald E, ed. Heart Disease: A Textbook of Cardiovascular Medicine. 5th Ed. New York, WB Saunders. 742-779 (1997)