In Sync: State-of-the-Art Cardiac Monitoring System Offers Convenience, Peace of Mind

A communicator allows a patient to send information from the implantable cardiac defibrillator to a physician's office regularly. (RIGHT) An implantable cardioverter defibrillator (ICD) treats abnormal heart rhythms, helping prevent death from a sudden cardiac arrest.

You have probably felt it before — that odd sensation or flutter when your heart gets out of rhythm. Usually, the feeling passes rather quickly, but for others, arrhythmia, a disorder of the regular rhythmic beating of the heart, is a serious condition. Patients who deal with life-threatening types of arrhythmias are at risk for sudden heart attack, and if not treated immediately with defibrillation, can die. "Ninety-five percent of people with an ICD will survive an episode of sudden cardiac arrest."

According to Morbidity and Mortality Weekly Report, 460,000 people die suddenly in the United States each year due to cardiac arrest. That is more than from AIDS, breast cancer and lung cancer combined. For these patients, an implantable cardioverter defibrillator (ICD) can be a lifesaver. The small device, implanted surgically in the upper chest, treats the abnormal heart rhythms, particularly fast arrhythmias in the heart's lower chambers or ventricles. According to the 1999 ENDOTAK Trial, ninety-five percent of people with an ICD will survive an episode of sudden cardiac arrest. The LATITUDE Patient Management System

Eisenhower Medical Center not only performs the procedure to implant the ICD device, but also offers a new technology to manage the appropriate patients after surgery. "As soon as the ICD has been implanted, monitoring the device and frequent follow-up become extremely important," says Sharon Duncan, RN, Supervisor, Electrophysiology Lab, at Eisenhower Smilow Heart Center. "The heart and the condition of the heart can fluctuate, and regular follow-up is needed to make sure the doctor is aware of any changes or any need for the ICD to be adjusted."

In the past, patients would have to visit their doctor's offices frequently to be monitored. Now, a number of new technologies are being developed to alleviate the number of office visits patients need to make. Using the LATITUDE Patient Management SystemTM, one of the systems currently available, they are sent home with a "communicator," a piece of equipment that plugs into any standard phone jack and fits easily on a nightstand or end table. The device monitors a patient's heart health daily or weekly and displays a white light reminder when it is time to check their device. The patient simply holds a small wand over the implanted ICD for about 10 to 15 seconds.The wand "absorbs" the information, and it is sent to the patient's physician. "If a patient's parameters are really out of the norm and major changes are sensed by the equipment, the physician and the medical company that provides the equipment will both be notified immediately," says Carl Enzor, RN, Director, Renker Wellness Center, who has been working with ICD patients and other cardiac rehabilitation patients to monitor their exercise and recovery.

A smaller group of patients with more serious heart problems and a history of heart failure are referred to Eisenhower's Glickman Heart Failure Clinic. "These patients are at higher risk for cardiac issues, and we watch their medications and diet a little closer. There are also a group of nurses who see these patients on a regular basis," says Enzor. "Ultimately, all the patients with ICDs still need to have regular follow-up visits, but this system reduces the number of in-office visits the patient has to make and frees up time for them to live their lives."

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