IMPLANTABLE ELECTROCARDIOGRAPHIC MONITORING DEVICE

Overview

You have or may have a heart condition called “arrhythmia,” in which the heart’s timer malfunctions, which may or may not cause symptoms. Doctors use a variety of tools to diagnose arrhythmia, including an electrocardiogram, which takes a “snapshot” of your heart’s electrical activity, as well as an ambulatory monitoring device (see picture below), which takes series of snapshots over time.

For some patients, continuous, long-term electrocardiogram monitoring may be wise. This cannot be achieved by a wearable technology. Situations include those who have fainted for unclear reasons, those who have had a stroke for unclear reasons, those who have unexplained palpitation, and those with atrial fibrillation (a specific type of arrhythmia) in whom comprehensive knowledge of whether and how often it is occurring is important.

The only technology capable of providing continuous, long-term electrocardiogram monitoring is a device, about the size of a matchstick, which is implanted under the skin overlying your chest (see picture below). This device is called an “implantable electrocardiogram monitoring device,” or IEMD.
The device transmits your electrocardiogram wirelessly to a small tabletop receiving unit in your home. Data are transmitted automatically or by your command to a monitoring center that shares the information with your doctor.

The IEMD implantation procedure is not painful, and takes about 5 minutes, Local anesthetic only is used. There is no significant risk. There is no recovery time.

The device can be removed at any time, although it may stay in even after the battery dies (about 3 years).