



Insertable Loop Recorder

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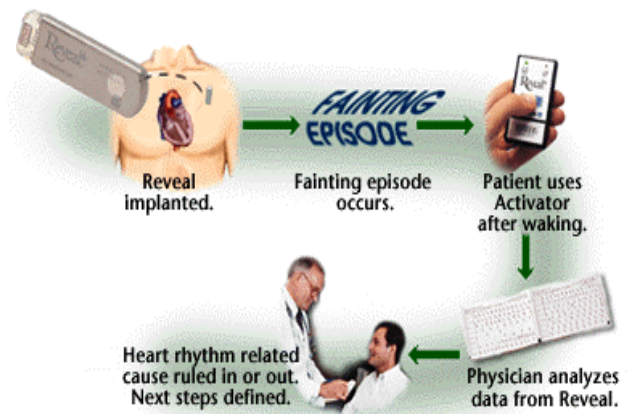
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The insertable loop recorder (ILR) is the world's first cardiac event recorder designed to be inserted under the skin. The reveal recorder is for long term monitoring and recording of an electrocardiogram which can be used to record the heart's rhythm when a patient is having symptoms such as syncope (fainting), palpitations, or dizziness, that may suggest a cardiac arrhythmia. The loop recorder is placed under the skin of the chest. The implant procedure takes about 15-20 minutes and is done with local anesthesia. An incision of about 2-3 cm is made and the loop recorder is inserted. It is designed to improve the capture of an ECG during a fainting episode. It does this by extending the monitoring period to more than one year and minimizes patient involvement for proper device use. This device continuously monitors the heart's electrical activity and records it as an ECG. It records in a loop by replacing old ECG information with new ECG information every 42 minutes. The electrodes are on the surface of the device so no leads are necessary to sense the heart's activity. When fainting occurs, the patient uses an external Reveal Activator to freeze the recorded ECG. This allows doctors to read the recorded ECG for further

evaluation. The activator is a hand-held device about the size of a pager with a single button to push for recording a fainting incident. The loop recorder is about 2.4 inches long, $\frac{1}{2}$ of an inch wide, and $\frac{3}{10}$ of an inch thick (a bit smaller than a pack of chewing gum).

A person might need an ILR if experiencing syncope. Syncope is a medical term for

fainting. Patients who experience syncope undergo the loss of consciousness due to insufficient supply of blood and oxygen to the brain. Electrical impulses are what keep a healthy heart beating at a normal rate and rhythm. If the heart's electrical system does not function properly, it can cause the heart to beat too fast, too slow, or to pump blood ineffectively. In these patients, it is this reduced blood flow to the brain that causes them to faint. As many as 47% of all syncope cases are



unexplained. Syncope accounts for 1% to 6% of hospital medical admissions and 3% of emergency room visits each year. While cardiac cases account for the smallest percentage of cases, they are considered the most serious because they have the highest rates of mortality.