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New technology helps unconventional way of recording heart beats

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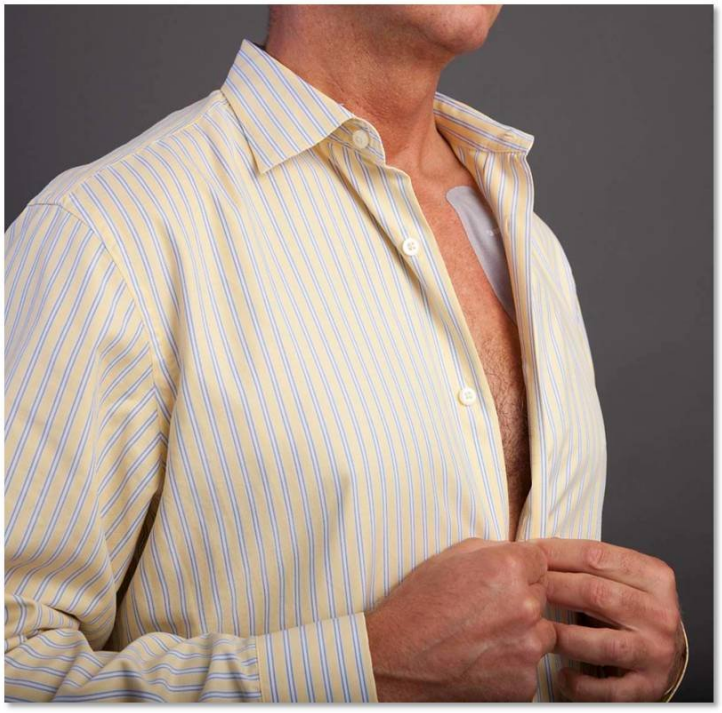

Ever wondered if you have ever felt transient dizziness or palpitations with sudden unexplained fainting or loss of consciousness? Most of the times it is assumed to be a temporary condition of weakness due to improper diet, lack of sleep or over exerted stress on a human body. While at some times it might stand true, but not always. It could be something way graver. The primary cause for these unexplained fainting and dizziness episodes could sometimes be also related to your heart conditions and you could be suffering from slow or extra fast heart rhythms, termed as arrhythmia in medical terms.

Arrhythmia refers to abnormal rhythms of the heart which in turn causes the heart to pump blood less effectively. Most cardiac arrhythmias are temporary and benign, however there are some that are life threatening and require to be attended seriously. The common symptoms of cardiac arrhythmia are dizziness, shortness of breath, lightheadedness, rapid heartbeat, heart palpitations, chest pain, blackouts, visual problems, and fainting. However different patients suffer from these symptoms at different frequencies. Patients with infrequent short-duration transient symptoms, recurring over weeks or months, are unlikely to be diagnosed by the conventional Holter monitoring that monitors the heart for 24-48 hours, or an ECG since the likelihood of symptom-ECG correlation is very low. The above mentioned tests allow the doctor to look at the heart's activity at rest and at one point in time. But abnormal heart rhythms and cardiac symptoms may come and go.

So to record your heart rate and rhythm during a symptom there is a device called as the External Loop Recorder (ELR). An ELR has capability to monitor a patient's heart for a long duration (7-30 days), and hence has a higher chance of providing a diagnosis to patients with infrequent symptoms. An ELR has emerged as the next big leap in medical technology by making a

detailed monitoring of your heart conditions over a period of time easy and convenient like never before, making a headway to living rooms and reachingwithin the access of a patient's fingertips. This FDA approved and CE marked External Loop Recorder (ELR) System is an extremely patient friendly device and presents a comprehensive solution for apt detection and analysis of cardiac arrhythmias. While continuously keeping a track of heart activity and detecting both symptomatic and asymptomatic cardiac abnormalities, it even enables symptomatic patients record high definition ECGs.

The devices are generally placed on the patient's skin in the chest region. They are generally auto-triggered and some advanced ones even enable patient activation capability through a patient trigger magnet. Allowing monitoring from the comfort and ease of your home, an ELR records arrhythmia episodes and wirelessly transmits them to the z-link monitor placed on the to the patient's belt.This z-link then relays the recorded episodes to an ECG Monitoring Centre over a cellular network.
At the end of the prescription, a monitoring center, staffed by qualifiedcardiographic technicians, sends the diagnostic reports to the physician via email. The diagnostic report consists of an average daily heart rate graph, a summary of the reported arrhythmias and the ECGs. If the arrhythmia qualifies as one of high importance, an urgent report is sent to the physician within a fewhours. The physician has the option of requesting a complete 45 second ECG (15 seconds before the trigger and 30 seconds after), otherwise a 6 second representative sample is provided.

An ELR, with its capability to monitor a patient for a long duration (7-30days) has a higher chance of providing a diagnosis to patients with infrequent symptoms (symptom occurs at least once a month) and hence enable better treatment, also acting as a viable tool for preventing serious conditions from escalating.