

Epilepsy Sensor

What is the Epilepsy Sensor?

The epileptic seizure alarm is a sensor that monitors a person with epilepsy while they sleep. It detects all of the person's movement in bed and is able to differentiate between normal movements and epileptic seizures.

How does it work?

The epilepsy sensor consists of a fine strip of foil-like material, a control unit and a radio transmitter. The sensor itself is extremely thin, contains no embedded wires or switches and is placed between the mattress and the bottom sheet.



The alarm functions of the sensor are based on monitoring the person's movements including respiration and heartbeat. It is able to separate normal movements from epileptic seizure symptoms.

The sensor also detects hyperventilation, partial convulsions and seizures. The alarm triggers if the person has abnormal movements longer than the preset delay. The delay can be set between 7-20 seconds.

Why is it needed?

Epilepsy is the tendency to have recurrent seizures. There are about 40 different types of seizure and a person may have more than one type. Epilepsy can develop at any age; however, it is most commonly diagnosed before the age of 20 and after the age of 60. Only 52% of people with epilepsy in the UK are seizure free.

One in 131 people in the UK has epilepsy – around 456,000 – making it the second most common neurological condition after migraine.

Who is it for?

This solution may benefit people with epilepsy to support and complement professional or family care where individuals are concerned about having seizures overnight.