PULSEGUARD

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MONITORING LIFE-THREATENING HEART RATE CHANGES FROM EPILEPTIC SEIZURES

By Adris Technologies Ltd

Project URL: www.pulseguard.org
Project Twitter: [@pulseguard](#)

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People with epilepsy are at far heightened risk of suffering complex seizures. At the alert
and losing sleep. Nevertheless, 600 people die annually from unexplained causes related to the disorder.

Young student Tom Perry has Dravet Syndrome – a severe form of epilepsy. His parents Adrian and Sue were recording him every night, and on an early

morning in 2012 they realised that Tom had a complex seizure during sleep that their video monitoring system had missed.

Adrian Perry wanted to better safeguard his son, and set about developing a product that could monitor Tom's sleep activity and send out alerts when a possible seizure was in progress. PulseGuard was born and, in the two years to 2014, successfully alerted Tom's parents to every one of his seizures.

PulseGuard works as a heart rate monitor, not only detecting seizure activity but also any other significant change in heart rhythm. It's a watch-type sensor that reads blood flow through the capillaries just under the skin, and transmits data via Bluetooth to an Apple smartphone or iPad. The battery lasts nine

Tom's consultants, professionals, and other people with epilepsy were excited with the results. The groundbreaking device went on sale to the public in September 2014 after a validation study by Young Epilepsy, a British charity aiming for better futures for young lives with epilepsy.

PulseGuard is undergoing further development with the support of numerous charities, organisations and individuals. They aim to produce monitors for a range of conditions, suitable for daytime use, and for those living alone. Take a look through the website and their online shop for more.

Image 'Sweet Dreamer' Courtesy of Patrick.

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