

Finnish mobile device for detecting arrhythmia soon available for consumers

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The VTT spin-off, VitalSignum, is making a small mobile device that detects arrhythmia by measuring the patient's ECG - available to consumers. The first production batch is being completed and will be retailed to consumers in early October.

The device has been tested, with good results, on [heart patients](#) for three years at the University Hospital of Turku and now also within the Hospital District of Helsinki and Uusimaa. Top athletes suffering from heart problems and many other private individuals have also tested the innovation.

Effortlessly portable

This highly portable device precisely measures the patient's ECG and heart rate variability (HRV). Medical device approval will be sought next, after which the device will be suitable for preoperative and postoperative monitoring of cardiac patients at home, since the data is automatically transferred from a cell phone to nursing staff via a cloud service.

"Arrhythmia tends to remain undiagnosed, if no symptoms are detected during Holter monitoring of heart activity. The compact new device, which can easily be concealed under clothes, will also provide a solution to this, by sending data on [arrhythmia](#) directly to a mobile [phone](#)," says Timo Varpula CTO of VitalSignum, who developed the technology

while at VTT Technical Research Centre of Finland. The journey from research to consumer product has been short - the company began operating only six months ago.

Known as the Beat2Phone, the device comprises software which runs on Android phones and a sensor which fits onto a flexible chest belt. These measure ECG signals at an extremely high resolution, identify individual heart beats and confirm the interval between consecutive beats. The device also includes position and activity sensors.

"Advance demand for the device has exceeded our expectations," says CEO Veli-Heikki Saari.

The number of potential users will grow as the population ages. About 5% of the population suffers from [cardiac arrhythmia](#), which is detected in around 12% of people over the age of 60. The number of people engaged in endurance sports is also rising.

More information: www.beat2phone.com

Provided by VTT Technical Research Centre of Finland

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