One Step Closer to Detecting AFib With Your Smartphone

by KATE TURNER

You Will Soon Be Able to Detect AFib With a Smartphone

A new app will allow atrial fibrillation patients to quickly and effectively identify when they are having an episode, reducing their risk of stroke.

According to Tero Koivisto, lead author of this new research, two percent of the global population experiences AFib, and the condition accounts for up to seven million strokes a year — 70 percent of which could be avoided with preventative medication.

“In the European Union alone this heart rhythm disorder costs approximately USD $19 billion every year,” he said.

And before you start thinking about all the add-ons you may have to buy for your phone in order to make the app work, think again: the app uses pre-existing smartphone hardware — no add-ons required.

Currently, you can purchase electrocardiogram (ECG) machines to monitor your heart rate, however these can be quite expensive, not to mention inconvenient. The average AFib patient doesn’t own one, so AFib episodes can be hard to detect.

When AFib occurs, your irregular heartbeat can possibly cause a clot that can travel to the brain, resulting in a stroke. AFibbers are up to five times as likely to have a stroke than those without the condition, which is why early AFib detection is so important.

This new, low-cost app uses your phone’s accelerometer and gyroscope — both used to detect your phone’s orientation and tells the screen to rotate or not — to record your heart rate when placed on your chest.

“If people feel odd and want to check their cardiac status, they can simply lie down, place the phone on their chest, take an accelerometer and gyroscope measurement, then use the app to analyse the result,” Koivisto said.

“They will get a simple yes/no answer as to whether they have atrial fibrillation or not.”

With this information, AFibbers can seek medical attention right away and avoid a life-threatening stroke.

“This is a low cost, non-invasive way to detect atrial fibrillation that people can do themselves without any help from medical staff. Given the widespread use of smartphones, it has the potential to be used by large populations worldwide.”