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WEARABLE GLUCOSE MONITOR FOR DIABETICS

 SPORT & FITNESS

In a life-changing advance for diabetics, Cardiff University researchers developed the first wearable, non-invasive blood sugar monitor.

For the millions of people who suffer through daily blood tests, often via self-administered pricks of the finger, the new healthcare wearable created by a team from [Cardiff University's School of Engineering](#) could make life immeasurably easier and more enjoyable.

A chronic health condition requiring constant monitoring, diabetes affects millions of people. More than 3.5 million UK citizens are diagnosed with diabetes, and there could be nearly half a million more unknowingly living with the condition. Daily blood tests are a way of life for diabetics, with the most severe type of condition requiring tests up to six times daily.

Using adhesives to stick the device to the skin, the monitor uses very low levels of microwaves, a type of electromagnetic radiation, to check the level of sugar in the blood. The data is then transmitted to a partner device, either a computer or app, for analysis and longer-term comparisons. The microwaves used in the monitor are very low and completely safe at approximately 1000 times less than the level of radiation produced by the average smartphone.

Already being used in clinical trials, researchers believe the device could be made widely available within five years depending on the level of investment they are able to attract. We've already seen wearables that can [test sweat for illness](#) and [predict seizures](#).

How else can non-invasive, preventive tech improve healthcare?

26th May 2016

