

Researchers developing wearable blood pressure monitor

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Methods for measuring blood pressure have varied only slightly in the last 100 years, but researchers at Monash University are set to revolutionize the medical monitoring landscape. Known as cuffless blood pressure estimation, this innovative new device requires only a few small sensors to be placed on the body to measure blood pressure, rather than the inflating 'cuff' many of us are familiar with.

Associate Professor Mehmet Yuce, a world leader in the field of Biomedical Engineering and an Australian Research Council Future

Fellow, is leading the development of this device, along with Monash PhD student Dilpreet Buxi.

Associate Professor Yuce said the device is user-friendly and convenient for patients, and offers the advantage of unobtrusive, continuous monitoring.

"Unlike current products, this cuffless [blood pressure](#) monitor is intended to be worn all the time, even while sleeping. The goal is to be able to provide monitoring for a continuous 24 hour period, and to be able to send that information to a doctor in real time," Associate Professor Yuce said.

The market for ambulatory or "on-the-go" blood pressure monitoring is growing. Associate Professor Yuce and Mr Buxi are excited to respond to the high demand for a cuffless monitor, and hope to begin work on commercialising their product in the near future.

While Associate Professor Yuce's team has patented the model, they are still working to develop the ground-breaking new concept from a lab-based setup to a wearable device. Once finalised, the cuffless blood pressure estimation device will be easy to wear and, with wireless connectivity, will instantaneously communicate blood pressure results to doctors over the internet.

Researchers are confident that the device's immediate and real-time communication of health data will improve health management practices and outcomes for patients and doctors.

Associate Professor Yuce is currently considering industrial partnership options to take this revolutionary device from the lab to a global audience.

Provided by Monash University

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