# A Wristwatch that Monitors Blood Pressure

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Although high blood pressure can be monitored, and treated effectively, with a number of drugs, a quarter of the people with the condition don't even know they have it, according to the American Heart Association. Of those who know they have high blood pressure, only two-thirds get treatment, and fewer than half have it under control.

Now a new wireless monitor from Hewlett-Packard [1] and a Singapore company called Healthstats [2] aims to make it much easier for patients and doctors to monitor blood pressure. The device, which has the size and look of a wristwatch, can monitor pressure continuously—which provides a much more accurate picture than infrequent readings in the doctor's office. Until now, the only way to do such continuous monitoring has been with a cumbersome inflatable cuff for the arm or wrist.

The new monitor comes with related software designed to keep patients and doctors informed of the wearer's vital signs, including blood pressure. Data is transmitted from the device to the user's cell phone, and then to the cloud, where clinicians can review it. Patients and their doctors can view 24-hour graphs of blood pressure, and the system can sound alerts when it detects abnormalities in pressure or other measures.

The research is part of a growing effort to use wireless monitors to capture round-the-clock medical data outside of the hospital. Physicians hope such devices will inspire patients to better monitor their own health, and help uncover difficult-to-diagnose conditions, such as nighttime hypertension.

Unlike standard equipment, the Healthstats device relies on a sensor that rests against an artery in the wrist and detects the shape of the pressure wave as blood flows through it.  (The device is first calibrated with a standard blood pressure monitor.) "Together with algorithms we have developed, the indices can be processed to get heart rate, diastolic and systolic pressure, and other measures," says Ting Choon Meng [3], a physician and Healthstats CEO.
SOURCE [4]

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