



NO PAIN, MUCH GAIN: (from left) Dr Ting, the inventor, and Mr Chua Ngak Hwee, fellow HealthSTATS founder are set to revolutionise the way blood pressure is taken with their new apparatus.

PHOTO: JOYCE FAN

# New 24/7 way to track blood pressure

Homegrown firm's invention takes blood pressure constantly in painless, non-invasive way

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A **HOMEGROWN** company looks set to revolutionise how blood pressure is taken in homes and hospitals, with a wearable device that can not only keep tabs on a person's blood pressure constantly, but also does away with the pain and discomfort of conventional methods.

HealthSTATS International's offering takes the form of a wristwatch, that monitors the pressure via a pea-sized plunger which rests just above the artery in the wrist.

To analyse readings taken over a period of time, it has to be connected to a reader that incorporates special software. In hospitals, it can be connected to monitors in the intensive care unit or operating theatre.

Its inventor, Dr Ting Choon Meng, a general practitioner who is the company's chairman and chief executive officer, said: "The aim is to be able to see what goes on between the times I see my patients, and to catch them before they have a stroke or heart attack."

The hope is that by providing a comprehensive map of blood pressure as it fluctuates over time, the device can indicate patients who currently slip through the cracks.

International studies have already shown that monitoring blood pressure over a 24-hour period gives a better idea of risks than doing it, say, once a week, because pressure varies according to the time of day.

"I started doing all this," said Dr Ting, "because I had patients who seemed to be responding well to medication, but suddenly suffered strokes. It was so frustrating that as a doctor, I was two steps behind the disease."

"My goal was to be three steps ahead of it, so I could change its course."

Two local and international patents have already been given for the apparatus and the technology behind them, and another is on the way.

Trials here with partners such as the National University Hospital, National Heart Centre and Nanyang Technological University, have shown the results it produces are virtually indistinguishable from the best equipment in use now.

It has also met European and American standards for blood pressure measurement.

The company is planning to go global with the apparatus and has sent these results to the US Food and Drug Administration (FDA) for approval, as the United States would be a major market.

Consultant cardiologist Mak Koon Hou, former director of clinical trials at National Heart Centre, noted the invention "may also give us early warning signs of stiffness of blood vessels via the blood pressure wave patterns, which may be related to stroke and heart failure".

The president of the College of Anaesthesiologists here, Dr Edward Pang, said the device could be a boon in hospital ICUs and during major operations, as "it's simple, convenient and non-invasive."

Blood pressure is now measured with an arm cuff, which can be uncomfortable, or by inserting a catheter into the patient's artery during major operations, which is painful and could result in complications like infections.

In the six years he has been working on the apparatus, said Dr Ting, there were times he was ready to give up, or move his entire operation overseas because it was so difficult to find funds.

But now, local private equity firm Whiterock Investments, which specialises in promising medical technologies, has pumped \$4 million into HealthSTATS.

Hospitals overseas, including those in Britain and India, have already placed orders, and Dr Ting is also set to open a flagship blood pressure monitoring centre next month where analyses for a 24-reading will be done.

"I gave up 50 per cent of my practice to focus on my passion; my wife thought I was mad," said the 45-year-old. "Finally, my head is just above water."