Monitoring blood pressure with a wearable ‘stick-on patch’

The last time you had your blood pressure checked, it was probably at a doctor’s office with a bulky cuff wrapped around your arm. One day soon, perhaps, you will just need a simple stick-on patch on your neck, no bigger than a postage stamp.

That’s the goal of Sheng Xu and his team at the University of California, San Diego, who are working on a patch that can continuously measure someone’s central blood pressure—the pressure of blood coursing beyond your aorta, the artery in your heart that delivers blood to all the different parts of the body. It could make it a lot easier to monitor heart conditions and keep an eye on other vital organs like the liver, lungs, and brain.

The silicon elastomer patch works by sending out ultrasonic waves that penetrate the skin and reflect off the wearer’s tissues and blood. Those reflections are sent back to the sensor, and then to a laptop that processes the blood pressure data (for now, at least, the patch must be wired to a laptop and a power source, too). It is the first known wearable device that can sense deep below the surface of the skin.

In theory, the patch could be used at home to monitor patients over time.

Read full, original post: A stretchy stick-on patch can take blood pressure readings from deep inside your body