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NZ brings technology to detect early signs of foot complications in diabetics

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Researchers at the Auckland Bioengineering Institute (ABI) in New Zealand (NZ) have received Health Research Council (HRC) funding to do a pilot study to trial a portable temperature-sensing technology they developed to detect the early signs of complications of the feet among people with type 2 Diabetes.

The prototype technology, FootSense, is a low-cost device designed for home-based monitoring, to detect early signs of foot complications.

It does this by measuring asymmetries in temperature. Research shows that differences in temperature between our feet – for example, if the ball of the foot in the left foot is different from the same location in the right foot – is indicative of compromises in blood flow. This can lead to foot ulcers and in severe cases, the need for amputation.

There is no current way to objectively assess temperature differences in our feet. Regular foot checking is crucial in people with type 2 Diabetes , but people's ability to get their feet checked depends on easy access to healthcare and support.

The researchers are hopeful that in the long run, the StressFootSense device, will improve health equity in New Zealand, by allowing for at-home monitoring that will in turn allow for early intervention.

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