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Diabetes experts leading the charge with change

With \$40 million spent every year on treating patients with diabetes in Sydney's south west, clinicians at South Western Sydney Local Health District are leading the charge in making change.

Dr Matthew Malone from Liverpool Hospital and Western Sydney University's School of Medicine has teamed up with Associate Professor Paul Breen and Dr Gaetano Gargiulo from The MARCS Institute for Brain, Behaviour and Development to test HeMo, a world first prototype medical device that could save amputation from occurring.

"Using the HeMO device, we can detect tiny changes in the volume of the human body. In this case, we are measuring how the flow and volume of the leg changes with every pulse of blood," Associate Professor Breen said.

"This is both intriguing from a technical perspective, but also highly useful in addressing clinical needs. The final product is very low cost, so much so that it may potentially be disposable."

Currently, patients need to attend a hospital clinic where a specialist clinician can spend an hour or more fully assessing their blood flow using equipment which costs up to \$70,000.

It is thought the one-time-use device could cost as little as \$10 and be used by health professionals at all levels, including those in remote and rural areas of the state.

"Vascular testing helps determine the best treatment path and is real-time prevention, likely picking up abnormalities earlier in people," Dr Malone said.

"Seeing it used in those rural health networks is where it could really be seen at its best."

Testing of the device will take place at Liverpool Hospital over three years and work will continue in getting it to a more portable size. Additional sites will also be selected to trial the device.