

Putting pressure on lymphoedema

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(Medical Xpress) -- Researchers from Flinders University are trialling a new treatment for lymphoedema of the legs, giving fresh hope to sufferers of the disabling condition.

The University-funded [Lymphoedema](#) Research Unit is one of three centres worldwide to test a new style compression garment which helps rid the body of fluid and harmful toxins.

Lymphoedema is a life-long, incurable condition that occurs when the [lymphatic system](#) is damaged or blocked, causing a build-up of protein-rich fluid usually in the legs or arms.

Damage to the lymphatic system can be caused by cancer treatments including [radiation](#) and lymph-node removal as well as congenital disorders, infections, diseases and [obesity](#).

There are many ways to treat the condition but the best methods - regular manual lymphatic massage therapy, compression garments and bandaging - can be rather expensive, require frequent travel and are time consuming for patients and therapists alike.

Professor Neil Piller (pictured), Director of the Lymphoedema Research Unit, said the new Flexitouch® compression garment had 28 chambers which inflate and deflate, providing gentle pressure variations to the foot, leg and abdomen to flush away the fluid.

Unlike standard systems, he said the Flexitouch device had more compression chambers spanning from the abdomen right down to the foot, as opposed to older models which have about 10 chambers and usually only focus on the lower [legs](#).

"The lymphatic system is essentially a sewerage system and when that system isn't working properly fluid and toxins build up," Professor Piller said.

"But this new device puts external pressure on various parts of the leg where the fluid is accumulating, starting in the abdomen and working down, to promote the natural movement of fluid out of the tissues and into the lymph system - and eventually out of the body," he said.

The year-long Flinders study, which is also being conducted at two lymphoedema clinics in the US and UK, is initially trialling the device on 16 participants over the course of three months, with patients required to wear the compression device for one hour at least five times a week.

Study coordinator Jan Douglass (pictured with Professor Piller) said the garment was both cost-effective and accessible because patients could use it in the comfort of their own home, removing the need for expensive medical bills.

"It reduces the reliance on a paid therapist and it gives the patient more independence and control over their own health, particularly those in rural and remote areas or people who can't afford to see a therapist regularly," Ms Douglass said.

"Lymphoedema needs to be managed on a daily basis so anything patients can do at home is going to be much more effective than going to a therapist once a week, even if you can afford it."

Officially results of the trial will be ready later this year, however Ms Douglass said subjective reports from patients were "extremely positive".

"Patients are reporting an improvement in their overall sense of wellbeing which probably means they're walking around more, and the more you move the more you get rid of the pressure.

"When you have lymphoedema it's a life-long battle to keep it under control - if you don't manage it there's a high-risk of infection and tissue damage, so if this device can slow down or stop its progress then that's a fantastic achievement.

Provided by Flinders University

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