

Can fast and furious exercise prevent diabetes?

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Patients with fatty liver disease may need a more intense ‘dose’ of exercise.
Credit: University of Queensland

Short bursts of high-intensity exercise could help people with non-alcoholic fatty liver disease reduce their risk of type 2 diabetes.

A trial led by University of Queensland School of Human Movement and Nutrition Sciences researcher Dr Shelley Keating will investigate if high intensity interval training (HIIT) can improve [insulin sensitivity](#), fitness and other [cardiovascular disease risk](#) factors.

"Other than weight loss, there is no accepted therapy for improving non-alcoholic steatohepatitis (NASH) – a type of [fatty liver disease](#) – which is strongly linked to type 2 diabetes and cardiovascular disease," Dr Keating said.

"We have recently demonstrated that [exercise therapy](#) reduces liver fat in adults with obesity, but patients with NASH may need a more intense 'dose' of exercise.

"We hope to establish that high-intensity exercise is a safe, feasible and effective therapy for improving insulin resistance and other cardio-metabolic [risk factors](#).

"Given that up to one-third of Australians have non-alcoholic fatty liver disease, and the subsequent rate of progression to NASH is around 30 per cent, the impact on the community is significant."

Study participants will complete 12 weeks of HIIT supervised by an accredited [exercise physiologist](#) at UQ's St Lucia campus in Brisbane, followed by 12 weeks of HIIT at home.

"The sessions will involve short, intense bursts of exercise – around four minutes on a treadmill or exercise bike at near maximum capacity - interspersed with more moderate exercise," Dr Keating said.

"Health measures including insulin sensitivity, body composition, vascular function, and fitness will be assessed before and after the supervised and home-based phases.

"It is very important that individuals can continue on with HIIT in the long-term so that the health benefits can be sustained," Dr Keating said.

People with biopsy-proven NASH, or their clinicians, should contact Dr

Keating (see below) for details on how to take part in the trial.

Provided by University of Queensland

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