

High intensity training helps heart patients

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Cardiac patients from the community are benefiting from new exercise rehabilitation research at the University's Exercise and Sport Science Division.

Aimee Cornish, a postgraduate health science scholar, is writing her honours thesis on high-intensity interval training in cardiac patients. She says volunteers from a phase two moderate intensity programme stepped up to the challenge for more rigorous stage three high intensity interval training.

The volunteers exercise three times a week at the Wellington campus fitness centre, where they also had their heart rate, blood pressure, and resting measurements taken.

"People had been doing moderate intensity – some for quite a long time," Ms Cornish says. "They were seeing some plateaus. We were hoping to break the plateaus to see greater gains."

Ms Cornish says shorter bursts of high intensity activity mirror real life more accurately than prolonged periods of low intensity physical activity.

Allan Wain has been taking part in exercise rehabilitation projects since his heart attack in 2005.

Research director Dr Sue Broadbent says Mr Wain, one of 26 people to take part in the latest project, now has the health status of a well man his age.

"He's gone from someone who had typical measurements for a man in a chronic disease group to someone with rates consistent of a normal male in his 50s."

Testing has shown cholesterol and blood pressure are down significantly across the group, Dr Broadbent says. Some participants have also lost weight, and their body mass index decreased.

"We are seeing significant differences between the

start and end points."

Dr Broadbent says with very little research going on into exercise rehabilitation in cardiac patients, the programme and its results were pioneering.

"The high intensity exercise mimics daily life or getting back into sport – which is something people often want to do but are nervous about after a cardiac event."

The 12-week programme is one of the first of its kind in New Zealand, with all participants referred by their doctors.

Mr Wain says the programme, run at the University cardiac clinic, benefits clients as well as students.

"This is about behaviour change," he says, as he unwinds after a series of tests on his health and fitness at the programme's end.

"Stepping up another level was just about the challenge for me. And it shows the benefits of exercise as opposed to drugs in rehabilitation."

The Massey University alumnus says the rehabilitation programme has helped him enormously.

"I used to take the records from Massey to my doctor to put some pressure on to come off the drugs. And when I did, it was like someone cutting the bungy cord behind me," he says.

Mr Wain says he will definitely continue with his high intensity interval training now the project is finished.

The keen skier says he is looking forward to testing his extra fitness on the slopes soon.

"There's no substitute for extra time on the mountain."

Allan Wain's data: over 12 weeks his blood pressure decreased from 120/76 to 115/70; resting

heart rate decreased from 64 beats per minute to 60; weight decreased from 89 kg to 87 kg; BMI decreased from 27 to 26.5; hand grip strength increased from 47 kg to 51 kg; aerobic capacity (measured in ml of oxygen per kg body weight per minute of exercise) increased from 24.5 ml to 30.0.

Source: Massey University

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