

Pleasant, enjoyable exercise has health benefits

March 19 2012

(Medical Xpress) -- Exercise doesn't need to be all about 'no pain, no gain' to reap the associated health benefits, according to research published in two top-ranking journals.

The research showed that exercising at a 'somewhat hard' intensity, was perceived to be 'pleasant', and resulted in increased aerobic capacity, and improved physical health including improved body mass index, blood pressure and blood lipid profile.

The research was published in A and A* ranked journals by University of South Australia academics Professor Roger Eston, who is Head of the School of Health Sciences, and Associate Professor in Exercise and Sport Psychology Gaynor Parfitt, along with their PhD student Harrison Evans from the University of Exeter in the UK, now a PhD student at UniSA.

Prof Eston says the first study, published in *Medicine & Science in Sports & Exercise*, the official journal of the American College of Sports Medicine, is significant because a recent position statement of the American College of Sports Medicine stated there was insufficient evidence to support using the rating of perceived exertion as a primary method of exercise training.

"However, we now have excellent evidence to show that it can be used to improve aerobic capacity," Prof Eston says.



"This first-time study observed a 17 per cent increase in aerobic capacity from a self-paced, eight-week treadmill training program where previously sedentary participants exercised for 30 minutes, three times per week, at a level they perceived to be 'somewhat hard'.

"Their aerobic function was improved so that as the program went on, they could work physiologically harder, but their rating of perceived exertion was the same. So they increased their fitness levels and received associated health benefits such as improved body mass index and reduced blood pressure."

Prof Eston says that a most important component of the program was that participants perceived the exercise to be pleasant.

"If you're going to prescribe someone exercise, you're going to have a much stronger chance of having them stick with it if they're enjoying it. And these people actually enjoyed the experience. They found it to be pleasant," he says.

"Another important thing here is the intensity was left to the individuals to set for themselves, so they were given the autonomy to control the exercise, the speed and the gradient of the treadmill according to this level of perceived exertion. That's important because you're giving the individual the autonomy to control the exercise intensity ... and at the end of the day the brain is in control."

The second study, published in the European Journal of Applied Physiology, showed using the rating of perceived exertion was just as effective as a VO2 max test to measure cardiovascular fitness.

"With a VO2 max test you keep cranking up the treadmill until you physically can't keep going anymore, which has risks in sedentary and middle-aged populations, but with our study we were able to show that



when individuals were instructed to <u>exercise</u> at four incremental, perceptually regulated intensities set at levels perceived to be 'very light', 'light', 'somewhat hard' and 'hard' we could reliably predict their maximal aerobic capacity," Prof Eston says.

"This was possible because of the very strong linear relationship between the ratings of perceived exertion and submaximal measures of physiological intensity such as oxygen uptake and heart rate. The RPE is as good as or better than heart rate for predicting maximal oxygen uptake.

"This study has implications for the clinical environment because we should be able to use this sort of predictive protocol for cardiac patients and in other clinical settings."

Provided by University of South Australia

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