

Vigorous workouts give more bang for buck

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A one hour high-intensity workout provides the same fitness benefits as 50 hours of walking, a major Flinders University study has found.

And an hour of high-intensity exercise – defined as exercise which pushes your heart rate up to 75 per cent of its maximum capacity or more – results in the same amount of fat loss as two hours of moderateintensity exercise.



The study, led by Flinders health sciences lecturer Dr Lynda Norton with researchers from the University of South Australia, measured the health benefits gained from every minute of vigorous activity compared to the same time spent in moderate-intensity exercise.

They assessed the affects on four disease risk factors; body fat and weight, cholesterol, hip and waist girth, and aerobic fitness.

More than 620 adults completed the six-week exercise program, with participants divided into two groups and asked to perform either a one hour high-intensity workout, such as circuit training, boxing or step classes, three times a week or 30 minutes of moderate-intensity exercise, such as walking, seven days a week.

While the moderate-intensity exercisers still gained some health benefits compared to 135 adults who did not participate in the program, Dr Norton said significantly greater benefits were achieved by the high-intensity exercise group.

"Most physical activity guidelines recommend a 30 minute daily walk but we found that it would take 50 hours of walking to achieve the same <u>aerobic fitness</u> that you could get from just one hour of high-intensity or <u>vigorous activity</u>," Dr Norton, based in Social Health Sciences, said.

"When we looked at cholesterol, we found it would take five hours of walking to see the same improvements as one hour of vigorous exercise, and for body mass index, it was the equivalent of about eight hours of walking," she said.

Dr Norton said that while the benefits of high-intensity exercise are well documented, the study was the first of its kind to measure the magnitude of change across major risk factors for cardiovascular and metabolic diseases when directly compared to walking.



"We know that low levels of exercise are associated with poor health, and that short, intense bouts of exercise are better but we didn't know how much better.

"We're now planning to look at what happens to your metabolic and fitness profile when you do vigorous exercise such as bootcamp or a spin class but then sit for long periods.

"My belief is that if you do vigorous exercise it counteracts a lot of sitting whereas other researchers say sedentary behaviour counteracts physical activity. However, they have generally been looking at moderateintensity exercise."

With obesity rates on the rise, Dr Norton said intervention strategies to increase activity, particular high-intensity exercise where less time is required, are important.

"Any form of <u>physical activity</u> is better than nothing but you'll get a lot more bang for your buck if you increase the intensity.

"This is particularly relevant in our time-poor modern lifestyles where lack of time is the most common reason people give for not doing more exercise."

More information: Lynda H Norton, Kevin I Norton, Nicole Lewis, James Dollman, "A comparison of two short-term intensive physical activity interventions: methodological considerations" *International Journal of Behavioral Nutrition and Physical Activity* 2011, 8:133 DOI: <u>10.1186/1479-5868-8-133</u>

Provided by Flinders University



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