

Traditional aerobic fitness training trumps pedometer-based walking programs for health benefits

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What to do: walk around the block or work up a sweat in an aerobic workout at the gym? If you're looking for the best health benefits from an exercise program, a traditional aerobic fitness program that gets your heart pumping beats a walking program hands down. But if you want to get moving, a walking program is easier to do, it's good for you, and you're more likely to stick with it.

University of Alberta researchers compared fitness training to a pedometer-based [walking](#) program, measuring the fitness and health outcomes of each. Programs were designed so participants would expend the same amount of energy in each regimen.

The six-month study, published by [exercise](#) physiologist, Gordon Bell, in the Faculty of Physical Education and Recreation, recruited 128 physically inactive men and women between 27 and 65 years of age with no known cardiovascular or other diseases. "Physically inactive" was defined by researchers as taking fewer than 5500 steps per day over a seven day period and not participating in any form of regular exercise.

Comparing fitness and walking groups, researchers found that after six months those in the supervised fitness program showed significantly greater reductions in

- their [systolic blood pressure](#) (~9 per cent versus 3 per cent),
- rating of perceived exertion (10 per cent versus no change), the effort measured during submaximal exercise
- ventilatory threshold (15 per cent versus 4 per cent) - this is the point at which respiratory changes occur and respiration begins to become increasingly difficult during progressive exercise
- peak VO₂ , a measurement of peak oxygen intake (9 per cent versus 3 per cent).

At the start of the study, volunteers were randomized into the control group, the walking group or the exercise group and all were required to wear a pedometer for the duration of the study to ensure that they stayed within the prescribed number of steps.

"We gradually built up the number of steps that the walking group did until they were prescribed 10,000 steps per day to be completed every day of the week. They actually were able to complete 9221 steps per day or 92 per cent of the prescription," says Bell, noting the high adherence rate of the walking group to the target number of steps. "There's something to be said about the these types of programs where people can use a simple device at home, collect their steps throughout the day, and with no travel and little planning involved. People seem quite willing to adhere to that type of exercise when it can be done on their own time."

Participants in the fitness program had a more intense regimen.

"Volunteers had to adhere to the intensity of exercise as measured by a heart-rate monitor, and to frequency, or number of times per week which as four times a week by the end of the study." Adherence based on frequency was 77 per cent in this group. Bell says this is close to what some researchers suggest as a successful adherence rate to this type of

exercise program.

All participants saw benefits: walking and fitness training groups saw a significant reduction in body mass, waist circumference and waist-to-hip ratio after the six months as well as resting heart rate. Surprisingly, the control group saw changes too and Bell says it's possible they were motivated to be more physically active after undergoing the health assessment at the start of the study, and having a pedometer, which may have made them more aware of how much or little they were physically active.

"The participants in the traditional fitness program improved their fitness-based response more than those in the walking program," says Bell. "The magnitude of that difference in improvement was very clear."

However, he says, it's not the type of exercise program for everyone. "Not everybody's going to be able to start in a traditional exercise program, such as those with certain health issues or type 2 diabetes, because of the higher intensity, duration and frequency of exercise training that is required".

"Lifestyle and pedometer-based fitness programs make it easier to get started, as long as there are no lower limb issues or (one is not) severely overweight. Most people have the ability to walk and walking-based programs are easy to prescribe and progressively overload, and get people walking far enough to begin to derive [health benefits](#) from it."

But, cautions Bell, "It's a long-term commitment. It seems that you need at least six months to get some health benefits from walking based programs."

Provided by University of Alberta

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