

## Study shows that high-intensity training boosts cognitive function

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A regular exercise routine can make you fitter than ever – mentally fit.

In a new study, previously sedentary adults were put through four months of high-intensity interval training. At the end, their cognitive functions – the ability to think, recall and make quick decisions – had improved significantly, says Dr. Martin Juneau, director of prevention at the Montreal Heart Institute.

"If you talk to people who exercise, they say they feel sharper. Now we've found a way to measure that," says Dr. Juneau.

Blood flow to the brain increases during exercise. The more fit you are, the more that increases. The pilot study – presented today at the Canadian Cardiovascular Congress – looked at adults, average age 49, who were overweight and inactive. Dr. Juneau and his colleagues measured their cognitive function with neuropsychological testing, as well as their [body composition](#), [blood flow](#) to the brain, cardiac output and their maximum ability to tolerate exercise.

The subjects then began a twice-a-week routine with an exercise bike and circuit [weight training](#). After four months – not surprising – their weight, [body mass index](#), fat mass and [waist circumference](#) were all significantly lower. Meanwhile, their capacity to exercise (measured by VO2 max) was up 15 per cent.

Most exciting, says Dr. Juneau, cognitive function had also increased,

based on follow-up testing. These improvements were proportional to the changes in exercise capacity and body weight. Essentially, the more people could exercise, and the more weight they lost, the sharper they became.

A decline in cognitive function is a normal part of aging, notes Dr. Juneau. That drop can be worse for people who have [coronary disease](#).

"It's reassuring to know that you can at least partially prevent that decline by exercising and losing weight," says Dr. Juneau.

As he notes, people can manage their cholesterol or blood pressure with a pill, but try to find a pill that will increase your cognitive function. Exercise, he says, can do it all.

"At least 150 minutes of moderate-to-vigorous physical activity per week can make a huge difference to manage risk factors for heart disease and stroke," says Dr. Beth Abramson, Heart and Stroke Foundation spokesperson. "There are many benefits of exercise – we know it can make us feel better. This suggests it can make us 'think better' as well."

"Activity can help you even if it's spread out in chunks of 10 minutes or more at a time," she says. "In fact, to get the most benefit, add more activity to your life over several days of the week."

Provided by Heart and Stroke Foundation of Canada

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