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Physical Fitness Cuts Your Risk of Death, Even Decades Later

Written by Jenna K. Flannigan | Published on July 26, 2016



It's well established that regular exercise is good for your health, reducing your risk of heart disease, diabetes, and other serious conditions.

Now, new research shows that physical fitness may provide even greater life extending benefits.

A 45-year study of men in Sweden suggests that the fitter you are at midlife, the lower your risk of death is for decades in the future.

Physical fitness may even be a better predictor of mortality than more commonly known risk factors, such as high blood pressure and cholesterol levels, according to the study.

The results were published today in the European Journal of Preventive Cardiology.

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Measuring VO_2 max

The research involved nearly 800 participants, who were part of a group known as the "Study of Men Born in 1913."

Researchers tested the men's exercise capacity in 1967, when the men were 54 years old.

Men who were healthy enough to do a maximum exercise test, in which they worked out as hard as they could, were assessed on a measure called "VO_2 max."

VO_2 max is a calculation of aerobic capacity, meaning how effectively your body uses oxygen during exercise. The higher your VO_2 max, the more physically fit you are.

Researchers followed up with the men every 10 years until 2012. They also gathered information about those who died from Sweden's National Cause of Death Registry.

To examine the relationship between aerobic capacity and death risk, researchers divided the men into three groups, from lowest to highest VO_2 max.

They found that men with the lowest aerobic capacity in 1967 had the highest rates of death every decade over the course of the 45-year study.

Between the three groups, each corresponding increase in VO_2 max was linked to a 21 percent lower risk of death.

The researchers tracked other factors, like the men's leisure activity, body mass index (BMI), blood pressure, cholesterol levels, and whether they smoked.

Aerobic capacity was second only to smoking as the greatest predictor of mortality.

"The benefits of being physically active over a lifetime are clear," said lead study author Dr. Per Ladenvall, a researcher in the Department of Molecular and Clinical Medicine at University of Gothenburg, Sweden, in a press release.

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How much exercise is enough?

This research was taken from the longest study ever conducted on this issue.

But the findings aren't a big surprise.

"We have known that exercise is associated with a lower risk of mortality for a long time," Dr. Ambarish Pandey, a researcher and cardiology fellow at University of Texas Southwestern Medical Center, told Healthline.

That's why the U.S. Centers for Disease Control (CDC) introduced physical activity guidelines for adults in 1995.

Those guidelines recommend that adults do a minimum of 150 minutes of moderate-intensity aerobic activity, like brisk walking, each week.

The question is whether adults who meet those guidelines are really exercising enough to protect their long-term health.

In 2015, Pandey was lead author of a study that showed adults actually need a higher level of exercise to prevent heart failure than what the CDC's guidelines recommend.

"The benefit of a high level of fitness against heart failure, and even mortality, is very linear," Pandey said, "So, the fitter you are, the better it is in terms of reducing your risk."

The 2015 study found that adults who had the lowest rates of heart failure exercised at two to four times the CDC's minimum guidelines.

The Swedish study released today, on the other hand, didn't include findings about how much physical activity is needed to boost aerobic capacity or lower mortality risk.

Ladenvall told Healthline that aerobic capacity is individualized, and has both genetic and lifestyle components.

"For most people, more physical activity will increase aerobic capacity," Ladenvall explained. "But the amount of physical activity needed to achieve a certain amount of aerobic capacity will differ between different people."

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How to boost aerobic capacity

If you're interested in improving your aerobic capacity, the starting point is to find out your VO_2 max.

It's a worthwhile endeavor, according to Karen Mustian, Ph.D., an exercise physiologist and director of the PEAK Lab at University of Rochester Medical Center.

Mustian told Healthline she is a proponent of treating a person's VO_2 max like a vital sign — in other words, a health indicator that should be checked regularly.

But graded exercise stress tests, one of the most accurate ways to measure VO_2 max, are expensive.

Most insurance companies won't cover these tests unless a doctor orders them, and most doctors won't order one unless they suspect a heart problem.

If you're willing to pay out-of-pocket, some fitness centers offer VO_2 max tests.

For a simpler approach, you can use an online fitness calculator like the one created by researchers at the Norwegian University of Science and Technology. In a 2011 study, the researchers showed their model was fairly accurate in predicting VO_2 max in healthy people.

To improve your VO_2 max, it's important to set specific exercise goals, Mustian explained. She suggested getting professional advice, if possible.

She also added that it's an individual process.

Following the physical activity guidelines alone may not be enough for some people to improve. For others with a sedentary lifestyle, doing even less than the guidelines suggest could make a difference.

If you're looking for a place to start, Mustian recommended walking.

"You need to be moving at rate that makes you breathe fast, breathe hard, and sweat," she said.

Do you do enough exercise?

- Yes, I exercise a lot
- I think I do about the right amount
- I haven't been, but I will now after reading this article!
- No, exercise is overrrated
- Other:

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As long as you have no medical conditions and no symptoms of disease, Mustian said it's generally safe to start exercising. If you're new to working out, begin at a low level and progress slowly.

"Exercise should be pleasurable," Mustian added. "You can exercise in a way that energizes you and makes you feel good, and still get the improvements, without putting yourself through pain."

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