

# Higher fitness level can determine longer lifespan after age 70

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Researchers have uncovered one more reason to get off the couch and start exercising, especially if you're approaching your golden years. Among people over age 70, physical fitness was found to be a much

better predictor of survival than the number of traditional cardiovascular risk factors in a study being presented at the American College of Cardiology's 68th Annual Scientific Session.

While [high blood pressure](#), high cholesterol, diabetes and smoking are closely linked with a person's chance of developing heart disease, these factors are so common in [older people](#) that the total number of risk factors becomes almost meaningless for predicting future health, researchers said. The new study suggests doctors can get a better picture of older patients' health by looking at how fit they are, rather than how many of these cardiovascular risk factors they have.

"We found fitness is an extremely strong risk predictor of survival in the older age group—that is, regardless of whether you are otherwise healthy or have cardiovascular risk factors, being more fit means you're more likely to live longer than someone who is less fit," said Seamus P. Whelton, MD, MPH, assistant professor of medicine at Johns Hopkins School of Medicine and the study's lead author. "This finding emphasizes the importance of being fit, even when you're older."

Doctors use cardiovascular risk factors to help guide decisions about preventive measures and medications. Previous studies have shown that quitting smoking and controlling blood pressure, cholesterol and diabetes can reduce [heart disease](#) risk. However, most studies of cardiovascular risk factors have focused on middle-aged people, leaving a knowledge gap regarding the importance of these risk factors in older people, Whelton said.

The team analyzed medical records from more than 6,500 people aged 70 years and older who underwent an [exercise](#) stress test at a Henry Ford Health Systems-affiliated medical center between 1991 and 2009. They assessed fitness based on patients' performance during the exercise stress test, which required patients to exercise on a treadmill as hard as they

could. They divided patients into three groups reflecting their fitness based on the number of METs (metabolic equivalents, a measure of exercise workload) they achieved during the test: most fit (10 or more METs), moderately fit (six to 9.9 METs) and least fit (six or fewer METs). For this study, the researchers grouped patients with zero, one, two, or three or more cardiovascular risk factors.

On average, participants were 75 years old when they underwent the stress test. Researchers tracked the patients for an average of just under 10 years, during which time 39 percent of them died. Over this period, the researchers found higher fitness was associated with significantly increased rates of survival. The most fit individuals were more than twice as likely to be alive 10 years later compared with the least fit individuals.

In contrast, a patient's total number of [cardiovascular risk factors](#) was not associated with their risk of death and patients with zero risk factors had essentially the same likelihood of dying as those with three or more risk factors.

Whelton said the findings demonstrate that fitness level is an important indicator of an older patient's health that doctors could benefit from considering more often. While an [exercise stress test](#) using a treadmill or stationary bicycle provides the most precise way to measure fitness, doctors can also get a general idea of a patient's fitness level by asking about their exercise routine.

"Assessing fitness is a low-cost, low-risk and low-technology tool that is underutilized in clinical practice for risk stratification," Whelton said.

The study did not account for any changes in fitness level that the participants may have experienced over time. However, previous studies have suggested that improving [fitness](#) can help improve heart health,

even late in life.

"People who aren't exercising or are sedentary would likely benefit from starting a routine of low- to moderate-intensity exercise, though they should talk with their physician first," Whelton said.

**More information:** Whelton will present the study, "Fitness and 10-year Risk of Mortality Among Adults ≥70 Years Old at the Extremes of Cardiovascular Disease Risk Factor Burden: The Fit Project," on Saturday, March 16, at 10:00 a.m. CT in Poster Hall, Hall F.

Provided by American College of Cardiology

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