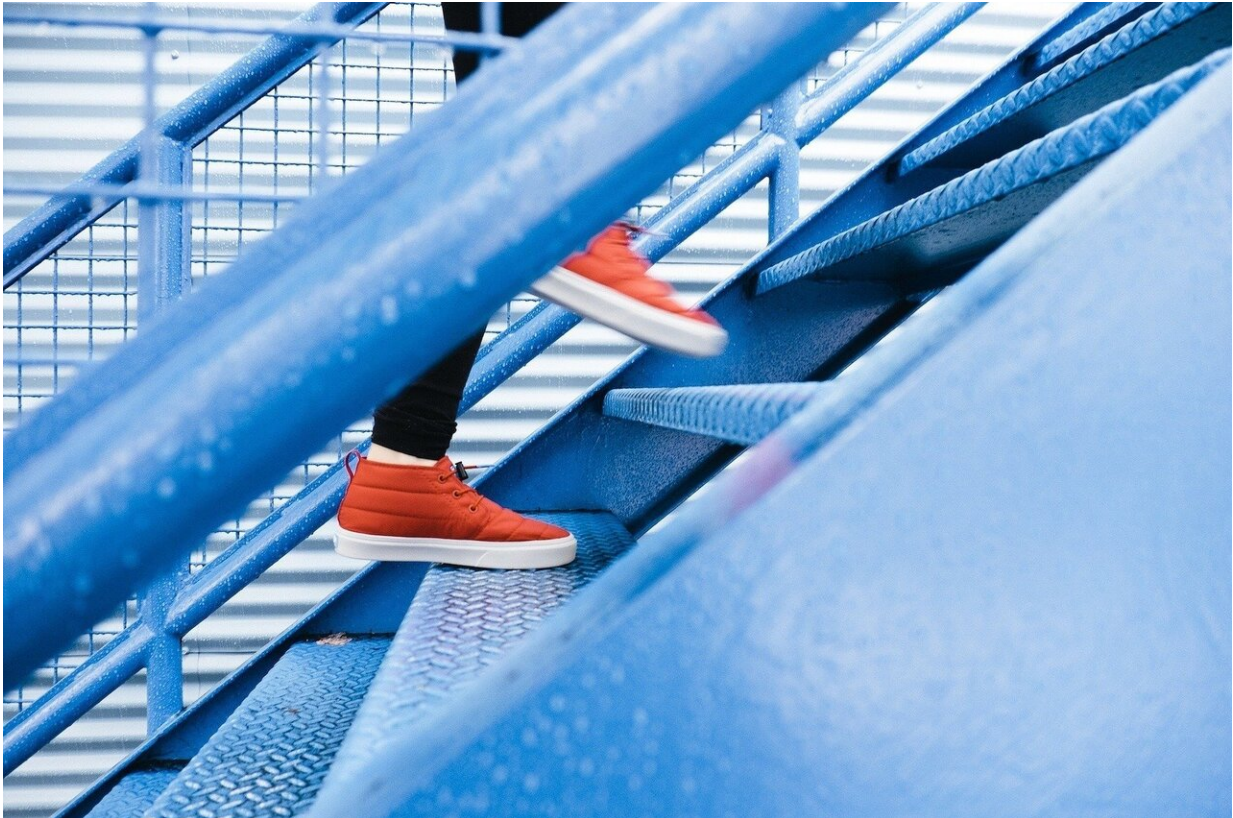


# Test your heart health by climbing stairs

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Credit: Pixabay/CC0 Public Domain

Climbing four flights of stairs in less than a minute indicates good heart health, according to research presented at [EACVI—Best of Imaging 2020](#), a scientific congress of the European Society of Cardiology (ESC).

"The stairs test is an easy way to check your heart health," said study author Dr. Jesús Peteiro, a cardiologist at University Hospital A Coruña, Spain. "If it takes you more than one and a half minutes to ascend four flights of stairs, your health is suboptimal, and it would be a good idea to consult a doctor."

This study was conducted to examine the relationship between a daily activity—i.e., climbing stairs—and the results obtained from [exercise testing](#) in a laboratory. "The idea was to find a simple and inexpensive method of assessing [heart health](#)," said Dr. Peteiro. "This can help physicians triage patients for more extensive examinations."

The study included 165 symptomatic patients referred for exercise testing because of known or suspected coronary artery disease. Symptoms included chest pain or shortness of breath during exertion. Participants walked or ran on a treadmill, gradually increasing the intensity and continuing until exhaustion. Exercise capacity was measured as metabolic equivalents. After resting for 15 to 20 minutes, patients were asked to climb four flights of stairs (60 stairs) at a fast pace without stopping, but also without running, and the researchers recorded the elapsed time.

The researchers analyzed the relationship between METs achieved during exercise testing and the time it took to climb four flights of stairs. Patients who climbed the stairs in less than 40 to 45 seconds achieved more than 9-10 METs. Previous studies have shown that 10 METs during an exercise test is linked with a low mortality rate (1% or less per year, or 10% in 10 years). In contrast, patients who took 1.5 minutes or longer to climb the stairs achieved less than 8 METs, which translates to a mortality rate of 2-4% per year, or 30% in 10 years.

During the treadmill test, the researchers also generated images of the heart to assess its function during exercise—a heart working normally

during exercise indicates a low likelihood of coronary artery disease. They then compared these findings to the results of the stair climb. Some 58% of patients who completed the stair climb in more than 1.5 minutes had abnormal heart function during the treadmill examination. In contrast, just 32% of those who climbed the stairs in less than one minute had abnormal heart function during the treadmill examination.

Dr. Peteiro noted that the correlation between the stairs time and [exercise](#) capacity (i.e., METs) would be similar in the general population. But the corresponding mortality rates and [heart](#) function by imaging would be more favorable than for patients with symptoms and suspected or confirmed coronary artery disease.

Provided by European Society of Cardiology

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