
Month of Exercise Helps Ease Heart Failure

Moderate regimen saw heart output, breathing improve, researchers say

By Ed Edelson

HealthDay Reporter

TUESDAY, April 8 (HealthDay News) -- Just four weeks of moderate exercise is enough to boost the cardiac performance and breathing capacity of patients with heart failure, a new study finds.

This slightly more strenuous exercise program -- in standard use in Europe for people with heart failure -- works at least as well as the less intense American regimen, the researchers noted. They presented the findings Tuesday at the Experimental Biology conference in San Diego.

In heart failure, the heart progressively loses the ability to pump blood. In the United States, doctors typically recommend three-times-a-week exercise sessions for eight to 12 weeks to help ease the condition, noted study author Stephen F. Crouse, a professor of kinesiology and internal medicine at Texas A&M University, in College Station.

His team looked at data from an Austrian rehabilitation center where 366 heart failure patients (average age 63) exercised 14 to 22 minutes on stationary bicycles six times a week. Participants also did a brisk 45-minute walk each day.

Four weeks of that regimen were enough to produce a significant increase in the participants' breathing capacity, Crouse said.

"This is something that we can recommend continuing for the rest of their lives," he added.

The benefits of exercise for people with heart failure are well-established, Crouse acknowledged. "There are some data from U.S. studies showing that the European regimen has at least equal benefits," he said.

The study used such standard measures of heart function as VO₂max, which measures oxygen consumed; resting heart rate; and blood pressure. But of greater interest was the measurement of blood levels of the protein NT-proBNP, which is secreted when heart muscle cells are stressed, Crouse said.

"We have this biomarker in the blood that can be followed very well and that correlates with [cardiac] performance," he said.

Levels of NT-proBNP went down as standard measures of heart performance went up, Crouse said. Blood levels of the protein dropped by 33 percent in the study group after four weeks of the exercise regimen.

Measuring NT-proBNP "is something we would suggest could become a routine clinical test, of treatment and performance," Crouse said. A blood test for the protein is not expensive and is a better alternative for more costly tests such as echocardiography, he said.

The longer-term effects of a continued exercise program for heart failure will be assessed by the Texas A&M team, Crouse said. "We need data to follow them out," he said.

The results were not surprising and will not affect advice on exercise now given to people with heart failure, said Dr. William E. Kraus, research director at the Duke University Center for Living. His center is currently leading a major trial of long-term exercise training for people with heart failure, with results expected later this year.

Use of NT-proBNP as a measure of performance is "a new wrinkle, but not so much of one that it makes me want to change practice," Kraus added.

More information

Guidelines for exercise in heart failure are provided by the Cleveland Clinic.

SOURCES: Stephen F. Crouse, Ph.D., professor, kinesiology and internal medicine, Texas A&M, College Station; William E. Kraus, M.D., research director, Duke University Center for Living, Durham, N.C.; April 8, 2008, presentation, Experimental Biology conference, San Diego

PCT chairman Gideon Ben-Tovim said: "Obesity is a complex problem, individuals will need to take responsibility for their own health and it will be up to them to make positive lifestyle changes."

Liverpool FC star Jamie Carragher, who backed the strategy today, said: "I am delighted to launch this because it will help so many people across the city eat better, be more active and, as a result, live longer."



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