

Is long-distance running good for the heart?

March 1 2019



As you can tell by all those 26.2-mile bumper stickers popping up around the country, the popularity of marathons and long-distance running continues to grow. But so has the number of studies examining

whether consistent endurance racing is healthy.

Recent research has raised alarms about the potential for plaque buildup and scarring in the [heart](#) in some long-distance runners. Yet other studies have suggested that when marathoners get [heart disease](#), they may be able to weather it better than non-runners.

What isn't being debated, however, is the power of getting off the couch.

"Any type of aerobic exercise has a positive effect on the heart," said Dr. Dan Meyer, chief of cardiac transplantation at Baylor Scott & White Health in Dallas. "Running is such an efficient mode of exercise. It can be relaxing and a stress reliever at times. I find it having as much emotional benefits as physical."

The roots of today's modern marathon reach back to the legendary Greek story of the messenger Phidippides. He ran the distance from Marathon to Athens, about 25 miles, to announce "Nike!" (victory) over the Persian army.

Some accounts say Phidippides already had covered 150 miles in two days. And most of the stories say he collapsed from exhaustion after his announcement.

Fast forward a few thousand years and, depending on good temperatures and local climate, running season always is in full swing somewhere. And from Myrtle Beach, South Carolina, to Los Angeles, the lineup of marathons grows each spring and fall.

In 1976, about 25,000 runners finished marathons in the U.S., according to Running USA, a nonprofit that promotes distance running. Forty years later, in 2016, more than 507,000 people had.

Dr. Peter McCullough, chief of cardiovascular research at Baylor Heart and Vascular Institute in Dallas, has completed 54 marathons, one in every state. But he stopped in 2012, after he said research showing the potential dangers made them not worth the risk.

"I thought there was enough evidence that I wasn't willing to pay the ultimate price," said McCullough, who still runs but for 5 or 6 miles at a time.

"I'm convinced that to go grind it out for hours on end at a steady pace is the wrong thing," he said. "Some experts are divided about this, and the concern is that it could dissuade some people from exercising, but we just can't bury our heads about it."

He'd like to see more research, such as a widespread registry of athletes involved in endurance sports and eventually a clinical trial that includes MRI results.

McCullough was part of the 2012 study that used MRIs to identify the long-distance runners whose right atrium and ventricle dilated immediately after a [marathon](#) and up to 24 hours later. It also included blood tests that showed an elevation in biomarkers that are indicators of heart stress and injury.

"Our theory is that 25 percent of people are susceptible to this recurrent injury of the heart," McCullough said. A smaller subset, he estimates about 1 percent, could be prone to scarring. Myocardial fibrosis, or scarring of the heart, can lead to heart failure.

A study published in 2017 on triathletes showed that 18 percent of the male participants, those who trained and competed the most, had more heart scarring than the other athletes.

Meyer, who has finished 16 marathons, tries to keep a daily running streak going, even if it's a few miles a day. He said federal guidelines of at least 150 minutes of moderate-intensity exercise a week or at least 75 minutes at a vigorous intensity "are reasonable and promote heart health for the long-term."

He pointed to a Stanford University study published in 2008 that focused on runners and nonrunners in their 50s. Researchers tracked them for more than two decades.

At the beginning of the study, the runners ran an average of about four hours a week. After 21 years, their running time declined to an average of 76 minutes a week, but they were still seeing [health benefits](#). Nineteen years into the study, 34 percent of nonrunners had died compared with 15 percent of runners.

Dr. David Sabgir, a cardiologist with Mount Carmel Health Systems in Columbus, Ohio, said he doesn't want studies that apply to one segment of hardcore [long-distance runners](#) to dissuade others from getting into exercise.

"The sedentary rates in this country are shocking," he said. In 2005, Sabgir founded Walk with a Doc, a health program that brings doctors and patients together to walk in their communities. It's now at 473 sites in 25 countries.

Sabgir, who has run about 10 marathons, was on a 4-mile run with friends recently and they agreed about the many other benefits.

"That social connectedness is probably equally beneficial to the [physical activity](#)," he said. "I've been so cardiovascular-focused, but there are reductions in mental health diseases, arthritis and cancers. ... The power of exercise can be miraculous."

American Heart Association News covers heart and brain health. Not all views expressed in this story reflect the official position of the American Heart Association. Copyright is owned or held by the American Heart Association, Inc., and all rights are reserved. If you have questions or comments about this story, please email editor@heart.org.

Citation: Is long-distance running good for the heart? (2019, March 1) retrieved 19 September 2024 from <https://medicalxpress.com/news/2019-03-long-distance-good-heart.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.