

Elite runners, women the first marathoners to lose to father time

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(HealthDay)—All marathon runners eventually slow down. But a new

study finds that whether a runner is average or elite, or whether they are a man or a woman, may determine at what age and how much their pace will decline.

The researchers reviewed 2001-2016 data from three of the largest U.S. marathons—Boston, Chicago and New York City.

"We found that [marathon](#) performance decline begins at about 35 years old," said study lead author Dr. Gerald Zavorsky, of Georgia State University.

"For top runners, we determined the slowdown is about 2 minutes per year beginning at age 35 for men. And for women, it's actually a little bit statistically faster of a slowdown, around 2 minutes and 30 seconds per year beginning at the age of 35," Zavorsky said in a university news release.

He is an associate professor in the university's department of respiratory therapy.

The researchers also found that marathoners aged 25 to 34 had the fastest times, with overall champion males at 28.3 years old and overall champion females at 30.8 years of age.

However, people with "average" marathon times don't see a big impact on their performance until later in life, the findings showed.

"If you're an average [runner](#) finishing in the middle of your age group, statistically the slowdown starts at age 50. It's similar if you're a man or woman. The decline with aging in average runners is around 2 minutes and 45 seconds per year beginning at age 50," Zavorsky said.

The researchers suspect the reason that average runners see a decline

later in life is that they likely started running later in life.

"Elite athletes realize their potential when they're young, and they're able to maximize that potential when they're young. But average runners might not realize their potential until they're a lot older and by that time physiological aging comes in. They try to reach their maximum potential, but they're trying to reach it at a much older age and their ceiling for improvement is not as high," Zavorsky suggested.

The rate of marathon performance decline between ages 35 and 74 is fairly steady, and female age-group winners have a 27 second per year larger decline than male age-group winners, according to the study.

Although you might never reach elite status if you start running in your 50s, the researchers don't want to discourage older people from getting involved in marathons.

"If you're an older person and you want to pick up marathon running, yes you can still improve because you've just now begun running. There's always room for improvement, but physiologically, you were probably at your prime somewhere between 25 and 34 years old," Zavorsky said.

"But people who are older can still train to achieve personal goals and get the health benefits of exercise, such as [lower blood pressure](#), lower blood cholesterol and enhanced psychological well-being," he added.

The study was published online recently in the journal *PLoS ONE*.

More information: The University of California, San Francisco offers [marathon training tips](#).

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