

Daily exercise dramatically lowers men's death rates

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Increased exercise capacity reduces the risk of death in African-American and Caucasian men, researchers reported in Circulation: Journal of the American Heart Association.

The government-supported Veterans Affairs study included 15,660 participants and is the largest known to assess the link between fitness and mortality.

"It is important to emphasize that it takes relatively moderate levels of physical activity — like brisk walking — to attain the associated health benefits. Certainly, one does not need to be a marathon runner. This is the message that we need to convey to the public," said Peter Kokkinos, Ph.D., lead author of the study and director of the Exercise Testing and Research Lab in the cardiology department at the Veterans Affairs Medical Center in Washington, D.C.

Professor Kokkinos and colleagues investigated exercise capacity as an independent predictor of overall mortality for African-American men (6,749) and Caucasian men (8,911) and also examined whether racial differences in exercise capacity influence the risk of death. Veterans were tested by a standardized treadmill test to assess exercise capacity between May 1983 and December 2006 at Veterans Affairs medical centers in Washington, D.C., and Palo Alto, Calif. The men were encouraged to exercise until fatigued unless they developed symptoms or other indicators of ischemia. These individuals were then followed for an average of 7.5 years and death rates were recorded.



Researchers classified the subjects into fitness categories based on their treadmill performance, expressed as peak metabolic equivalents (METs) achieved. Technically, a MET is equivalent to oxygen consumption of 3.5 milliliters per kilograms of body weight per minute. One MET represents the amount of oxygen the person uses at rest. Anything above one MET represents work. The higher the MET level achieved, the more fit the individual.

Based on this concept, the researchers divided the participants into four categories:

- -- 3,170 men were "low fit," achieving less than 5 METs;
- -- 5,153 men were "moderately fit," achieving 5 to 7 METs;
- -- 5,075 were "highly fit," achieving 7.1 to 10 METs; and
- -- 2,261 were "very highly fit," achieving more than 10 METs.

The study found that "highly fit" men had half the risk of death compared to "low fit" men. Men who achieved "very highly fit" levels had a 70 percent lower risk of death compared to those in the "low fit" category. For every 1-MET increase in exercise capacity (fitness), the risk for death from all causes was 13 percent for both African Americans and Caucasians.

Kokkinos said, "These findings are important for several reasons: First, we were able to quantify the health benefits per unit increase in exercise capacity. Second, this is the first study to provide information on physical activity and mortality in African Americans, information lacking until now. Keep in mind that death rates in African Americans are much higher when compared with Caucasians, in part because race and income negatively influence access to healthcare."

"The Veterans Affairs' health system is unique in that it ensures equal access to care regardless of a patient's financial status," he added. "Thus,



it provides us with a unique opportunity to assess the impact of exercise or physical activity on death without the influence of healthcare differences."

According to Kokkinos, most middle-age and older individuals can attain fitness levels with a brisk walk, 30 minutes per day, five to six days each week. "I do not advocate that everyone can start with 30 minutes of physical activity. In fact, 30 minutes may be too much for some people. If this is the case, split the routine into 10-15 minutes in the morning and another 10-15 minutes in the evening. The benefits will be similar if the exercise volume accumulated is similar," he said.

"Our findings show that the risk of death is cut in half with an exercise capacity that can easily be achieved by a brisk walk of about 30 minutes per session 5-6 days per week," he added. "Physicians should encourage individuals to initiate and maintain a physically active lifestyle, which is likely to improve fitness and lower the risk of death. Individuals should also discuss exercise with their physician before embarking on an exercise program."

Source: American Heart Association

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