

# A Little Running Goes a Long Way: Mortality Benefit at Just Six Miles per Week

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AMES, IOWA and NEW ORLEANS, LA — Just five to 10 minutes of daily running, even performed at very slow speeds, can significantly lower an individual's risk of all-cause and cardiovascular mortality, according to the results of a new study<sup>(1)</sup>.

Compared with those who didn't run, investigators observed a significantly reduced risk of mortality among those who ran less than six miles per week, among those who ran slower than six miles per hour, and among those who ran just one to two times per week.

"This is very good news because one of the biggest obstacles for exercise is time," **Dr Carl 'Chip' Lavie** (Ochsner Medical Center, New Orleans, LA), one of the investigators, told [heartwire](#). "What people tell me all the time is that they just don't have time to exercise. My answer is that if you don't have 30 minutes to exercise then you better find time for dying. But this is really nice because it lets people know they don't have to do a 30- or 40-minute run each day. You can get substantial benefits from a five- or 10-minute run, from a 10- or 15-minute run. You don't have to go long to get the benefit."

Lead researcher **Dr Duck-chul Lee** (Iowa State University, Ames, Iowa) said that prior to the investigation, his thought had been that more running would equate to greater mortality benefits. "It seems like common sense with exercise and health," he told [heartwire](#). "The good news is even a little is better than nothing, which is a little different, considering the current exercise guidelines recommend at least 75 minutes of vigorous exercise per week. We found that even less than that was good for reducing mortality risk."

Overall, runners gained about three years of life over their nonrunning counterparts and had a 30% lower risk of all-cause mortality and a 45% lower risk of cardiovascular mortality.

## Data From the Landmark ACLS

The study, published July 28, 2014 in the *Journal of the American College of Cardiology*, included 55 137 participants in the [Aerobics Center Longitudinal Study](#) (ACLS) who were followed for 15 years. Of these individuals, nearly one in four were runners, and these individuals were more likely to be men, younger, leaner, fitter, and less likely to smoke and to have a lower prevalence of chronic diseases.

Even after adjustment for these potential confounding variables, running was associated with a significantly lower risk of mortality. Not running, note the investigators, was almost as important a risk factor as high blood pressure, accounting for 16% of all-cause and 25% of cardiovascular mortality.

The researchers then divided the runners into five quintiles based on weekly running time. Individuals who ran less than 51 minutes per week (the lowest quintile) had a significantly lower risk of all-cause and cardiovascular mortality compared with nonrunners. Among those who ran more frequently, there did not appear to be any more benefit in terms of total and cardiovascular mortality risk reduction. As

the investigators point out, when nonrunners were excluded from the analysis, there was no statistically significant difference in the mortality benefits among those who ran more each week.

#### **Hazard ratios (95% CI) of All-Cause and Cardiovascular Mortality by Weekly Running (min/wk)**

<b>End point</b>	<b>&lt;51</b>	<b>51–80</b>	<b>81–119</b>	<b>120–175</b>	<b>≥ 176</b>
<b>All-cause mortality</b>	0.80 (0.66–0.97)	0.76 (0.63–0.91)	0.78 (0.64–0.95)	0.84 (0.69–1.02)	0.89 (0.74–1.07)
<b>Cardiovascular mortality</b>	0.59 (0.40–0.86)	0.67 (0.47–0.95)	0.82 (0.58–1.16)	0.78 (0.54–1.11)	0.86 (0.62–1.21)

In terms of distance, Lavie said the runners appear to achieving maximal total mortality benefits running less than six miles, or 10 kilometers, per week. For cardiovascular mortality, the maximal benefit requires a little bit more mileage, around five to 10 miles, or eight to 16 kilometers, per week. As expected, the runners who ran more frequently and at faster speeds were fitter than slower runners doing less volume.

#### **Running for Other Reasons**

To **heartwire**, Lee said he was surprised the mortality benefits did not increase with more amounts of running. That said, he noted that most studies connecting exercise volume with health benefits are based on self-reported exercise data. "When people report their physical activity, they tend to overreport how much they're doing. They know it's good for them." Future studies using more objective measures, such as motion detectors or accelerometers, might show benefits of lower-volume exercise, said Lee.

Despite the results, Lavie said he will still recommend patients aim for 30 to 40 minutes of daily exercise to fulfill the US recommendations for physical activity. For those not able to do that, these new data suggest that levels well below national physical-activity guidelines can provide substantial benefit. "In fact, it's really hard to argue that you get a lot more benefit with more running because it seems the maximal benefits are at quite low doses," said Lavie.

Lee noted the present study looked at the association with mortality and that exercise provides health benefits on other variables, including weight, hypertension, diabetes, and mental health, among others. "People also run for other reasons, not only health benefits," he said. "They run for stress release, competition, fitness improvement, weight management, or fun. I don't want this study to simply say a little is good enough and you don't need to do more. That's not true. There are other reasons for running."

#### **Moving From Contemplation to Reality**

In an editorial<sup>[2]</sup>, **Dr Chi Pang Wen** (China Medical University Hospital, Taichung, Taiwan), **Jackson Pui Man Wai** (National Taiwan Sport University, Taoyuan), **Min Kuang Tsai** (China Medical University Hospital), and **Dr Chien Hua Chen** (Hungkuang University, Taichung, Taiwan) write that more than 50% of people from the US and UK do not meet the national targets recommending 30 minutes of moderate-intensity exercise per day (or 75 minutes of vigorous-intensity exercise per week). In Asian countries, just one in five individuals achieve the required amount of physical activity.

The editorialists note that running has its downsides—such as being laborious, painful, tough to sustain, and associated with injuries—but it beats walking in terms of mortality benefits when done in equal amounts. In fact, a five-minute run is as good as a 15-minute walk and a 25-minute run would require 100 minutes of walking to achieve a similar benefit.

The editorialists conclude by saying that physicians need to warn patients of the detrimental aspects of physical inactivity, including its effect on lifespan, cancer, diabetes, and depression.

"Although most patients are aware of the benefits of exercise, it is up to us to move them from wishful thinking to a practical reality and move them from contemplation to the action phase," they write. "Even with one minute [of] counseling, it is our attitude and our commitment toward emphasizing the importance of exercise or the harm of inactivity that may move patients. A simple message, delivered with sincerity, needs to be repeated every time we encounter our patients."

*The authors and editorialists report no conflicts of interest.*

## References

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2. Wen CP, Wai JP, Tsai MK, Chen CH. Minimal amount of exercise to prolong life. *J Am Coll Cardiol* 2014; DOI: 10.1016./j.jacc.2014.05.026. Available at: <http://content.onlinejacc.org/journal.aspx>