

## Inactivity More Deadly Than Obesity, Large New Study Finds

Medscape Medical News, January 15, 2015, Lisa Nainggolan  
[http://www.medscape.com/viewarticle/838209#vp\\_2](http://www.medscape.com/viewarticle/838209#vp_2)

Fresh evidence that just a little bit of exercise, such as 20 minutes walking a day, is extremely beneficial — regardless of whether people are overweight/obese or not — has emerged from a large European study.

In fact, the most pronounced reduction in premature death risk was observed among individuals who were normal weight/abdominally lean and "moderately inactive," compared with those of the same build who were completely inactive, which was defined as having a sedentary job with no reported recreational physical activity.

Looking at this another way, the study — in more than 330,000 men and women — showed that twice as many premature deaths may be attributable to lack of physical activity compared with the number of deaths attributable to obesity, the researchers say.

The results are [published online](#) January 14 in the American Journal of Clinical Nutrition by Dr Ulf Ekelund (University of Cambridge, United Kingdom), Dr Heather A Ward (Imperial College London, United Kingdom), and a long list of collaborators on the [European Prospective Investigation into Cancer and Nutrition](#) (EPIC).

"This is a simple message: just a small amount of physical activity each day could have substantial health benefits for people who are physically inactive," said Dr Ekelund [in a statement](#). "Although we found that just 20 minutes would make a difference, we should really be looking to do more than this — physical activity has many proven health benefits and should be an important part of our daily life," he added.

Another of the authors stressed that encouraging movement is something that doctors can easily do, especially in light of research published earlier this week, which showed that primary-care physicians, at least in the United Kingdom, [seldom provide](#) access to weight-management interventions.

"Helping people to lose weight can be a real challenge, and while we should continue to aim at reducing population levels of obesity, public-health interventions that encourage people to make small but achievable changes in physical activity can have significant health benefits and may be easier to achieve and maintain," commented Dr Nick Wareham (Medical Research Council Epidemiology Unit, University of Cambridge).

Is Effect of Physical Activity Independent of BMI, Waist Circumference?

In their paper, Dr Ekelund and colleagues note that physical inactivity has consistently been associated with an increased risk for all-cause mortality independent of general adiposity as defined by body mass index (BMI).

And prior research that has examined associations between physical activity, BMI, and mortality suggests that activity protects against premature death but does not eliminate the increased risk associated with high BMI.

But these studies had numerous limitations, they observe, and while it may seem logical that physical activity exerts its influence on mortality indirectly through reducing adiposity, this is by no means clear.

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But these studies had numerous limitations, they observe, and while it may seem logical that physical activity exerts its influence on mortality indirectly through reducing adiposity, this is by no means clear.

So they set out to examine the relationship between physical activity and all-cause mortality and to look at whether BMI and waist circumference modified these associations in a large sample of 334,161 men and women followed for more than 12 years from the EPIC study, in which both BMI and waist circumference were measured at baseline.

As a secondary aim, they estimated how many deaths could theoretically be avoided if inactive or obese individuals were active or nonobese, respectively, and calculated the years of gain in life expectancy from avoiding physical inactivity, high BMI ( $>30 \text{ kg/m}^2$ ), and high waist circumference ( $> 88 \text{ cm}$  in women and  $> 102 \text{ cm}$  in men), separately and combined in the cohort.

Physical activity was measured using self-assessment. Just under a quarter (22.7%) of participants were categorized as inactive, reporting no recreational activity in combination with a sedentary occupation.

#### Impact of Physical Activity Greatest Among Those of Normal Weight

Over the 12 years of follow-up, 21,438 participants died.

The greatest reduction in risk for premature death occurred in the comparison between inactive and moderately inactive groups.

All-cause mortality was reduced by 16% to 30% in the moderately inactive group compared with those categorized as inactive, across all strata of BMI and waist circumference.

The authors estimate that doing exercise equivalent to just a 20-minute brisk walk each day — burning between 90 and 110 kcal — would take an individual from the inactive to moderately inactive group and thereby reduce the risk for premature death by this same amount (ie, between 16% and 30%).

The impact was greatest among normal-weight individuals, but even those with higher BMI saw a benefit of physical activity.

The researchers say that data from the United States have suggested that physical activity reduces but does not eliminate the increased risk of adiposity on all-cause mortality when cross-classifying activity and BMI groups.

Emerging evidence is accumulating indicating that substantial health benefits may be achieved by fairly small increases in physical activity.

Other research has shown that exercising for 15 minutes per day is associated with a 14% reduction in risk of all-cause mortality compared with inactivity in an Asian population.

"Our results extend these previous observations to also include European men and women and suggest that, within each strata for BMI and waist circumference, the hazard of all-cause mortality was substantially reduced when the inactive group was compared with the moderately inactive group," they state.

"Thus, emerging evidence is accumulating indicating that substantial health benefits may be achieved by fairly small increases in physical activity."

Using the most recent available data on deaths in Europe, the researchers estimate that 337,000 of the 9.2 million deaths among European men and women were attributable to obesity; however, double this number of deaths (676,000) could be attributed to physical inactivity.

Simply moving from one category to another (eg, inactive to moderately inactive) would be sufficient to dramatically reduce premature deaths, they stress. "Efforts to encourage even small increases in activity in inactive individuals may be of public-health benefit," they conclude.

The authors have reported no relevant financial relationships.

Am J Clin Nutr. Published online January 24, 2015. [Article](#)