

60 minutes of exercise per day needed for middle-aged women to maintain weight

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(PhysOrg.com) -- If a middle-aged or older woman with a normal body mass index wants to maintain her weight over an extended period, she must engage in the equivalent of 60 minutes per day of physical activity at a moderate intensity, according to new findings by Harvard researchers at Brigham and Women's Hospital (BWH).

"There is plenty of research on treating overweight and [obesity](#) — that is, looking at strategies for weight loss among overweight or obese persons, but very little research on preventing weight gain in the first place. Most overweight and obese persons who lose weight do not successfully maintain their weight loss over time, and so, from a public health perspective, preventing that initial weight gain is important," said I-Min Lee, an associate professor of epidemiology at Harvard School of Public Health (HSPH), epidemiologist in the Division of Preventive Medicine at BWH, and associate professor of medicine at Harvard Medical School.

The findings are published in the latest issue of the *Journal of the American Medical Association*.

Lee and colleagues analyzed data reported from

more than 34,000 healthy U.S. women in the Women's Health Study over 13 years to examine the relationship between the level of daily [physical activity](#) and weight change over time. Women in the study reported their leisure-time physical activities every two to three years. Each time that physical activity was assessed, women were divided into three groups, according to the amount of time they spent engaged in physical activity.

The most active group of women spent the equivalent of 420 minutes a week (60 minutes a day) or more engaged in moderate-intensity physical activity. The second group engaged in the equivalent of at least 150 but less than 420 minutes a week of moderate-intensity physical activity, and the least active group engaged in the equivalent of less than 150 minutes a week of moderate-intensity physical activity. An example of a moderate-intensity physical activity is brisk walking.

These three levels of physical activity were chosen based on the 2008 federal guidelines for physical activity, which recommended at least 150 minutes a week of moderate-intensity physical activity for health, and a 2002 Institute of Medicine report on recommended dietary intakes, which suggested that 60 minutes a day of moderate-intensity physical activity was needed to prevent being overweight, although the scientific basis for this level of activity has been questioned.

Over the duration of the 13-year study, the average weight of participants increased by 6 pounds, which is a rate of weight gain similar to that of comparably aged women in the general population. Compared with the most active women, both the group physically active for 150 to less than 420 minutes a week, and the group physically active for less than 150 minutes a week gained significantly more weight than the most active group. The two less-active groups also were significantly more likely to gain at least 5 pounds, compared with the most-active group.

Researchers discovered that the findings differed significantly, according to women's [body mass index](#) (BMI). Physical activity was associated with less weight gain only among women with a normal BMI, which is less than 25. An average U.S. woman who is 5 feet, 5 inches tall must weigh less than 150 pounds to have a normal BMI. Among heavier women, physical activity — at least, within the levels that study participants undertook — was not related to less weight gain.

In this study, researchers were able to identify a group of “successful weight maintainers.” These were women who started with a normal BMI and managed to maintain their weight, gaining less than 5 pounds at each weight assessment, throughout the study. These women, 13 percent of participants, consistently engaged in physical activity that was the equivalent of 60 minutes a day of moderate-intensity physical activity.

Researchers concluded that:

- Among middle-aged and older women consuming a usual diet with no calorie restriction, moderate-intensity physical activity for 60 minutes a day is needed to maintain normal BMI and prevent weight gain over time.
- The 150 minutes a week of moderate-intensity physical activity, which can be achieved by 30 minutes a day, five days a week, and which is recommended by the federal government, while clearly sufficient based on data from many studies to lower the risk of developing chronic diseases, is insufficient for [weight-gain](#) prevention, without restricting caloric intake.
- Among women who are already overweight or obese, physical activity — at least, at levels carried out by participants in this study — is not related to weight change, emphasizing the importance of controlling caloric intake for weight maintenance in this group.

“These findings shouldn’t obscure the fact that for health, any physical activity is good, and more is better,” Lee emphasizes. “It is important to remember that weight is only one aspect of health. Many studies have shown that being physically

active for even 30 minutes a day, five days a week, significantly reduces the risk of developing many chronic diseases, such as cardiovascular disease, some cancers, and type 2 diabetes.”

More information: JAMA.
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