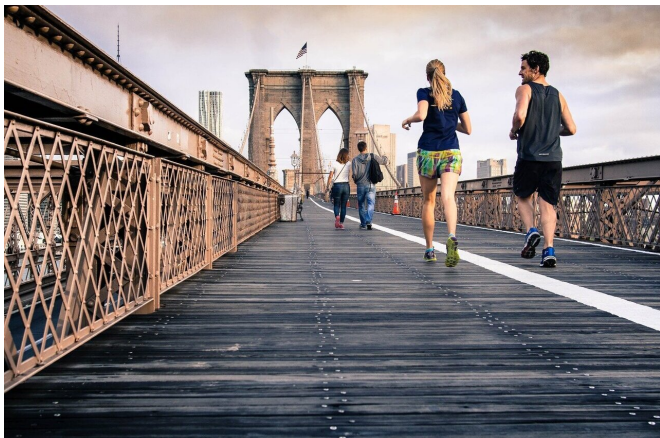


# Physical activity regulates appetite, study finds

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Following a dietary weight loss program can be difficult. Many factors trigger diet lapses, which can lead to weight loss failure. Experts disagree on whether physical activity increases risk or protects against diet lapses. While some studies show exercise leads to overeating by increasing appetite and/or a person's justification for eating, other studies show exercise regulates hunger and may help reduce overeating.

Researchers from the [Center for Weight, Eating and Lifestyle Science](#) (WELL Center) in the College of Arts and Sciences at Drexel University found [exercise](#) to be a protective factor in a study where participants in a weight loss program, who were following a reduced-calorie diet, engaged in exercise in their real-world environments.

"Almost all behavioral weight loss programs prescribe exercise because of its [health benefits](#) and because it expends energy or 'burns calories,'" said Rebecca Crochiere, a [graduate student](#) in the College of Arts and Sciences and lead author of the study. "Interestingly, our study suggests that exercise may also aid in adhering to a reduced-

calorie diet, perhaps through improved regulation of appetite or eating behavior. It adds another reason to engage in exercise if one is seeking weight loss."

The study found that exercise was protective against overeating. When participants did not engage in exercise, the risk of overeating in the following hours was 12 percent. Whereas when participants engaged in 60 minutes of exercise, the risk of overeating was cut by more than half, to five percent.

For every additional 10 minutes of exercise a participant engaged in, the likelihood of overeating decreased by one percent in the few hours following exercise.

Researchers collected data from 130 participants using novel methods, like ecological momentary assessments, or brief surveys, that were delivered to participants' smartphones multiple times a day to measure overeating and hip-worn fitness trackers to measure exercise.

"These findings can help researchers to better understand when participants who are seeking weight loss are at risk of overeating," said Crochiere. "It can inform the development of treatments that prevent overeating and facilitate [weight loss](#)."

Crochiere cautioned these findings represent patterns observed across the sample as a whole; a goal for future research is to investigate if the effect of exercise on eating behavior differs from person to person.

The results also hinted that the effect of exercise on eating behavior may depend on the intensity of the exercise, with light (versus moderate-to-vigorous) [physical activity](#) showing the strongest protective effects against [overeating](#), though more research is needed to support this finding, said Crochiere.

The study, "[Is Physical Activity a Risk or Protective Factor for Subsequent Dietary Lapses Among Behavioral Weight Loss Participants?](#)" was published January 2020 in *Health Psychology*.

**More information:** Rebecca J. Crochiere et al. Is physical activity a risk or protective factor for subsequent dietary lapses among behavioral weight loss participants?, *Health Psychology* (2020). [DOI: 10.1037/hea0000839](https://doi.org/10.1037/hea0000839)

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