The more we exercise, the longer we lounge around, study shows

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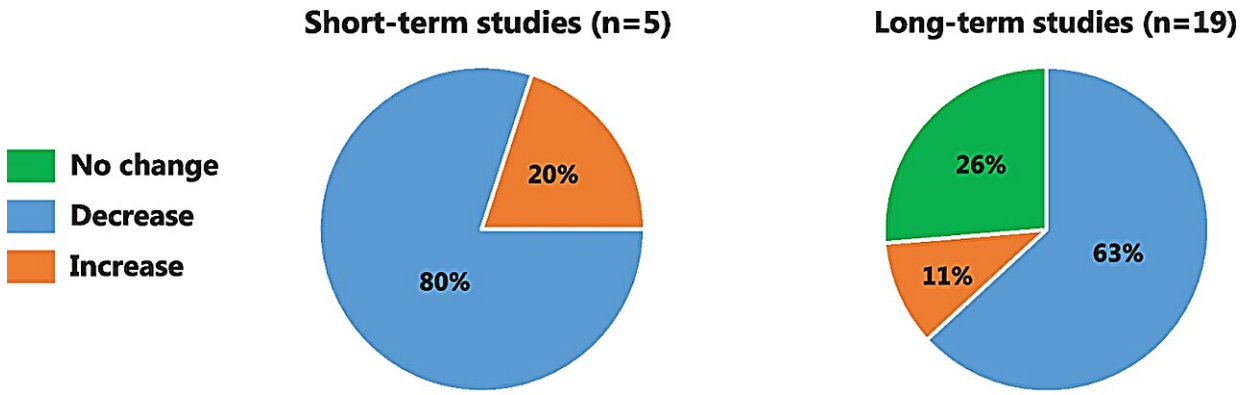

Share of studies in which subjects either reduced, increased, or maintained their level of common non-exercise-related activities. On the whole, 67% of studies demonstrated a compensatory reduction. Credit: University of Copenhagen

The more we engage in structured exercise training, the more we tend to cut back on daily non-exercise physical activities like riding a bike to work instead of driving, or taking the stairs instead of hopping on an elevator. This is the conclusion reached from a meta-study from the University of Copenhagen. According to the study's authors, this is an important consideration for anyone seeking to lose weight.

You may know the feeling. After a strenuous run or workout, you think you deserve an extra long rest on the couch, or an elevator ride instead of taking the stairs.

You are far from alone. A wide range of studies show that as people increase their amount of structured exercise, like going to the gym or running on the track, they tend to "laze about" more when it comes to performing everyday physical activities that are not considered to be structured exercise.

"In 67% of the studies, we can see that people cut back on physical activities in their daily lives as compensation for more training. This includes walking less, cycling less and taking an elevator instead of the stairs," says Julie Marvel Mansfeldt, a graduate student at the University of Copenhagen's Department of Nutrition, Exercise and Sports (NEXS).

Mansfeldt is the lead author of a systematic review of 24 research studies, all of which describe people's levels of daily physical activities before and during interventions with various structured exercise programs. The study is published in the journal *Current Nutrition Reports* .

One's level of regular physical activity seems to play a significant role in whether or not a person successfully loses weight.

"Losing weight is about changing the balance between the amount of energy you consume and the amount you expend. You can either change your diet to eat less or increase your level of physical activity," says Julie Marvel Mansfeldt.

"In theory, an energy deficit resulting from exercising more should result in weight loss. But in practice, we see that the two things are seldom linked and that weight loss from exercise is often less than expected. This indicates that some kind of compensatory mechanism must exist. Surprisingly and contrary to what many people think, we do not typically increase the amount of food we eat upon starting exercise training. This then suggests that we must be decreasing non-exercise physical activity,

which refers to all the physical activities we do in our daily lives aside from the structured exercise."

One of the studies concludes that this decline made subjects lose 22% less weight than expected from their exercise training program.

We think we deserve it

According to graduate student Julie Marvel Mansfeldt, our tendency to be less physically active outside of exercise time is probably a mixture of physiological and psychological mechanisms within us.

"The compensation can come from simply feeling more tired after a training session at the gym. But there is probably a psychological factor at play too, which is a kind of reward system that kicks in and makes us think we deserve to lie on the couch and skip the long walk with the dog, or take the car to the supermarket instead of cycling," Mansfeldt explains.

While many of us probably believe that we feel hungrier and eat more after engaging in structured sport or exercise activities, research in this area actually shows that this kind of compensation is not as common.

The studies also demonstrated that the compensatory reduction of non-exercise physical activities is a common response among both men and women, and both among people with a body weight within the healthy range and those with overweight.

The researchers hope that the new knowledge will be put into practice both by individuals and professionals:

"The number of overweight people is constantly growing. Therefore, it is important to look at what we can do to facilitate a net energy balance

whereby the amount of energy a person consumes is no greater than the amount of energy they expend," says Mansfeldt.

"Currently, weight loss programs involving exercise always state that participants need to be careful not to eat more. But because this second mechanism also appears to play an important role, I hope that it will be mentioned to anyone who begins an exercise-based weight loss program in the future. That they should remember to be as active on a daily basis as usual, and be careful to not give up cycling to work, walking the dog, taking the stairs, and so on."

More information: Julie Marvel Mansfeldt et al, Compensatory Responses to Exercise Training As Barriers to Weight Loss: Changes in Energy Intake and Non-exercise Physical Activity, *Current Nutrition Reports* (2023). DOI: 10.1007/s13668-023-00467-y

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