

Want to sleep longer? Adding mini-bursts of exercise to your evening routine can help, says study

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Exercising before bed has <u>long been discouraged</u> as the body doesn't have time to wind down before the lights go out.



But <u>new research</u> has found breaking up a quiet, sedentary evening of watching television with short bursts of resistance exercise can lead to longer periods of sleep.

Adults spend almost one third of the 24-hour day sleeping. But the quality and length of sleep can affect long-term health. Sleeping too little or waking often in the night is associated with an <u>increased risk of heart disease</u> and <u>diabetes</u>.

Physical activity during the day can help improve sleep. However, <u>current recommendations</u> discourage <u>intense exercise</u> before going to bed as it can increase a person's heart rate and core temperature, which can ultimately disrupt sleep.

Nighttime habits

For many, the longest period of uninterrupted sitting happens at home in the evening. People also usually consume their largest meal during this time (or snack throughout the evening).

Insulin (the hormone that helps to remove sugar from the <u>blood stream</u>) tends to be at a lower level in the evening than in the morning.

Together these factors promote elevated blood sugar levels, which over the long term can be bad for a person's health.

Our <u>previous research</u> found interrupting evening sitting every 30 minutes with three minutes of resistance exercise reduces the amount of sugar in the bloodstream after eating a meal.

But because sleep guidelines currently discourage exercising in the hours before going to sleep, we wanted to know if frequently performing these short bursts of light activity in the evening would affect sleep.



Activity breaks for better sleep

In our latest research, we asked 30 adults to complete two sessions based in a laboratory.

During one session the adults sat continuously for a four-hour period while watching streaming services. During the other session, they interrupted sitting by performing three minutes of body-weight resistance exercises (squats, calf raises and hip extensions) every 30 minutes.

After these sessions, participants went home to their normal life routines. Their sleep that evening was measured using a wrist monitor.

Our research found the quality of sleep (measured by how many times they woke in the night and the length of these awakenings) was the same after the two sessions. But the night after the participants did the exercise "activity breaks" they slept for almost 30 minutes longer.

Identifying the biological reasons for the extended sleep in our study requires further research.

But regardless of the reason, if activity breaks can extend sleep duration, then getting up and moving at regular intervals in the evening is likely to have clear health benefits.

Time to revisit guidelines

These results add to <u>earlier work</u> suggesting current sleep guidelines, which discourage evening exercise before bed, may need to be reviewed.

As the activity breaks were performed in a highly controlled laboratory



environment, future research should explore how activity breaks performed in real life affect people's sleep.

We selected simple, body-weight exercises to use in this study as they don't require people to interrupt the show they may be watching, and don't require a large space or equipment.

If people wanted to incorporate activity breaks in their own evening routines, they could probably get the same benefit from other types of exercise. For example, marching on the spot, walking up and down stairs, or even dancing in the living room.

The key is to frequently interrupt evening sitting time, with a little bit of whole-body movement at <u>regular intervals</u>.

In the long run, performing activity breaks may improve health by improving sleep and post-meal blood sugar levels. The most important thing is to get up frequently and move the body, in a way the works best for a person's individual household.

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