

Improving and Maintaining Adequate Sleep Duration Could Reduce Weight, New Research Suggests

By: *Science News*



“Obesity is a major public health concern,” said Dr. Esra Tasali, director of the University of Chicago’s Sleep Center, and colleagues.

“The obesity epidemic appears to coincide with a pattern of sleeping less that has been observed in society over the past several decades. For example, one-third of the U.S. population reported not getting the recommended 7 to 9 hours of sleep per night.”

“Substantial evidence suggests that sleeping less than 7 hours per night on a regular basis is associated with adverse health consequences. Particularly, insufficient sleep duration has been increasingly recognized as an important risk factor for obesity.”

“Prospective epidemiologic studies suggest that short sleep duration is an important risk factor for weight gain.”

“However, it remains unknown whether extending sleep duration can be an effective strategy for preventing or reversing obesity.”

“Although sleep hygiene education is encouraged by obesity experts, most health professionals and patients do not implement obtaining adequate sleep duration as part of the strategies to combat the obesity epidemic.”

“We conducted a randomized clinical trial to determine the effects of a sleep extension intervention on objectively assessed energy intake, energy expenditure, and body weight in real-life settings among adults with overweight who habitually curtailed their sleep duration.”

The randomized clinical trial involved 80 adults aged 21 to 40 years with a body mass index between 25.0 and 29.9, and habitual sleep duration of less than 6.5 hours per night. The study was conducted from November 1, 2014 to October 30, 2020.

The participants were able to increase their sleep duration by an average of 1.2 hours per night after a personalized sleep hygiene counseling session.

“Over the years, we and others have shown that sleep restriction has an effect on appetite regulation that leads to increased food intake, and thus puts you at risk for weight gain over time,” Dr. Tasali said.

“More recently, the question that everyone was asking was, ‘Well, if this is what happens with sleep loss, can we extend sleep and reverse some of these adverse outcomes?’”

Overall, participants who increased their sleep duration were able to reduce their caloric intake by an average of 270 kcal per day — which would translate to roughly 12 kg of weight loss over three years if the effects were maintained over a long term.

“Even though the study did not systematically assess factors that may have influenced sleep behavior, limiting the use of electronic devices before bedtime appeared as a key intervention,” Dr. Tasali said.

Ultimately, the researchers hope to examine the underlying mechanisms that may explain these results, and believe their work should spur new, larger studies on weight control to determine if extending sleep can support weight-loss programs and help prevent or reverse obesity.

“In our earlier work, we understood that sleep is important for appetite regulation,” Dr. Tasali said.

“Now we’ve shown that in real life, without making any other lifestyle changes, you can extend your sleep and eat fewer calories. This could really help people trying to lose weight.”

Esra Tasali *et al.* Effect of Sleep Extension on Objectively Assessed Energy Intake Among Adults With Overweight in Real-life Settings: A Randomized Clinical Trial. *JAMA Intern Med*, published online February 7, 2022; doi: 10.1001/jamainternmed.2021.8098