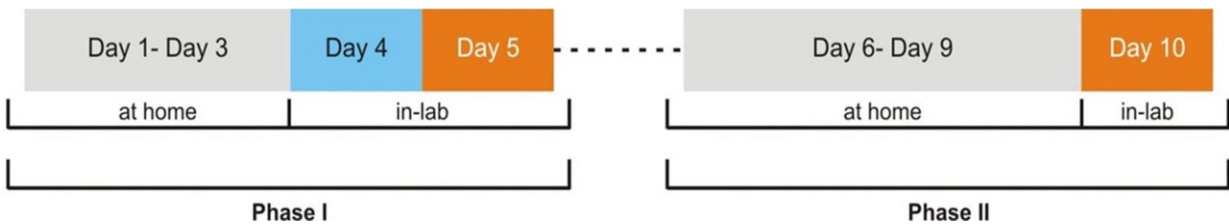


Weighted blankets found to increase melatonin

October 3 2022, by Elin Bäckström



Overview of the randomized, counterbalanced within-subjects design. Boxes highlighted in gray illustrate the two at-home adaptation phases (i.e., day 1 to 3 and day 6 to 9); in blue, the sole adaptation night (day 4); and in orange, the two experimental days (days 5 and 10). Credit: *Journal of Sleep Research* (2022). DOI: 10.1111/jsr.13743

A new study from Uppsala University shows that using a weighted blanket at bedtime increases melatonin in young adults. This hormone increases in response to darkness, and some evidence suggests that it promotes sleep. The findings are published in the *Journal of Sleep Research*.

Previous research has shown that weighted blankets may ease insomnia in humans. However, the underlying mechanisms are not fully understood. Hence, researchers from Uppsala University in Sweden experimented with 26 young men and women to examine if the bedtime use of a weighted blanket increases the production of sleep-promoting

and anti-stress hormones like [melatonin](#) and oxytocin. In addition, they investigated whether the [bedtime](#) use of a weighted blanket (12% of participants' body weight) reduced the activity of stress systems in the body. To this end, saliva was collected repeatedly from participants while they were covered with either a weighted or a light blanket to measure melatonin, oxytocin, cortisol, and the activity of the fight and flight sympathetic nervous system.

"Using a weighted blanket increased melatonin concentrations in saliva by about 30%. However, no differences in oxytocin, cortisol, and the activity of the sympathetic nervous system were observed between the weighted and light blanket conditions," says Elisa Meth, first author and Ph.D. student at the Department of Pharmaceutical Biosciences at Uppsala University.

"Our study may offer a mechanism explaining why weighted blankets may exert some therapeutic benefits, such as improved sleep. However, our findings rely on a small sample and investigated only the acute effects of a weighted blanket. Thus, larger trials are needed, including an investigation of whether the observed effects of a weighted blanket on melatonin are sustained over longer periods," says senior author Christian Benedict, Associate Professor of Pharmacology at the Department of Pharmaceutical Biosciences at Uppsala University.

More information: Elisa M. S. Meth et al, A weighted blanket increases pre-sleep salivary concentrations of melatonin in young, healthy adults, *Journal of Sleep Research* (2022). [DOI: 10.1111/jsr.13743](#)

Provided by Uppsala University

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