

# Causal association found between evening social media use and delayed sleep

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A team of psychiatrists from Duke University and Yale University has found what they describe as a causal association between evening social

media use and delayed sleep. In their study, reported in the journal *Sleep Medicine*, the group tracked social media use and delayed sleeping patterns for 44,000 Reddit users.

Prior research has shown that exposure to blue light, such as that emitted from phones and [tablet computers](#), can lead to sleep problems because it interferes with production of melatonin. In this new effort, the researchers have found that posting to a social [media](#) site prior to normal bedtime may delay the time that people go to sleep.

The team wondered whether social media posting might be interfering with people's normal sleep patterns, especially in the evening hours. To find out, they conducted an exhaustive analysis of data on the social media site Reddit. As with other [social media sites](#), users on Reddit can post comments or links to content and comment on what others have posted.

In all, the research team analyzed 120 million posts made by 44,000 users on the site over a period of 15 years. They were able to establish what they described as normal bedtimes for frequent users of the site, which enabled them to measure the impact of social media posting prior to a normal bedtime.

The researchers found that if a user posted to the site approximately one hour before their normal bedtime, they were much more likely to stay up past their normal bedtime—on average, they were still awake after posting, from one to three hours after they normally went to sleep. And if they posted multiple times before their normal bedtime, they stayed up even later.

The researchers suggest that a rise in dopamine levels due to anticipation of a response from other users on the site could make it difficult for posters to relax and go to sleep. Prior research has shown that a rise in

[dopamine levels](#) contributes to [mental activity](#) and alertness, neither of which is conducive to going to sleep.

**More information:** William U. Meyerson et al, The association between evening social media use and delayed sleep may be causal: Suggestive evidence from 120 million Reddit timestamps, *Sleep Medicine* (2023). [DOI: 10.1016/j.sleep.2023.04.021](https://doi.org/10.1016/j.sleep.2023.04.021)

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