1 Hour of Screen Time at Bedtime Reduces Sleep by 24 Minutes, Study Finds

https://www.healthline.com/health-news/screen-time-bedtime-insomnia-risk?utm_source=ReadNext#How-social-media-use-at-bedtime-affects-sleep

A new Norwegian study finds that one hour of screen time at bedtime results in a 59% higher risk of insomnia and 24 fewer minutes of sleep.

The findings indicate that social media use is no more disruptive to sleep than watching TV or movies or reading on a mobile device.

While there is some controversy about the negative effects of blue light on sleep quality, there is widespread agreement that exposure to bright light in general before bed may lead to poor sleep.

Many people simply do not get enough sleep, despite the known health benefits of quality shuteye.

According to the Casper-Gallup State of Sleep in America report, about 84 million American adults, or 33%, describe the quality of their sleep as "fair" or "poor." For young adults, that percentage rises to 38%.

In addition, just 35% of United States residents were likely to get the recommended eight hours of sleep daily.

While multiple factors affect sleep quality and duration, a new Norwegian study finds that spending time on your mobile phone at bedtime can result in poorer-quality sleep and insufficient sleep.

The findings show that each one-hour increase in screen use raised insomnia risk by 59% and shortened sleep duration by 24 minutes.

The study included 45,202 young adults ages 18 to 28, and investigated different types of screen activity and their effect on sleep. The full results were published March 31 in Frontiers in Psychiatry.

Does blue light impact sleep?

Previous research has indicated that light waves from electronic displays — particularly in the blue range of the visible spectrum — can disrupt sleep and disturb the body's natural circadian rhythm.

There is evidence that blue light exposure at bedtime dysregulates the production of the hormone melatonin, which helps promote and maintain sleep. As a result, many phone manufacturers now offer blue-light filtering features for late-day use on their devices.

Blue-wavelength light is beneficial during the daytime, increasing attentiveness, improving mood, and shortening reaction times.

However, not all research supports concerns regarding blue light and sleep.

A recent study tracked how blue-to-yellow light exposure for an hour before bedtime affected the sleep of 16 participants. The researchers found no real difference between the hues. According to their findings, sleep may be equally disturbed by bright light of any color.

Health effects of not getting enough sleep

Sufficient sleep is a vital component of good health. Not getting enough sleep has negative ramifications for most major systems within the human body, including the:

- central nervous system
- immune system
- respiratory system
- digestive system
- cardiovascular system
- endocrine system

Insufficient rest over time is a major risk factor for hypertension, diabetes, obesity, depression, heart attack, and stroke.

How social media use at bedtime affects sleep

Referring to his study, Sivertsen said, "Interestingly, students who exclusively used social media had the lowest rates of insomnia and the longest sleep duration compared to those who engaged in other screen activities or a mix of activities."

His study hypothesizes social media participation may actually have less of an effect than other activities since the socialization it supports may be protective of sleep.

However, a 2019 study found that screen use of any kind appears to cause sleep problems for adolescents and younger children. This could include social media, watching television or movies, gaming, or e-reading.

"Adolescents tend to be more socially and emotionally reactive, making social interactions more stimulating and harder to disengage from before sleep," Sivertsen speculated. "[They] often have a delayed sleep phase, meaning late-night social screen use could further shift their sleep schedule."

Additionally, Cedernaes cited a meta-study of 125,000 children, which found that merely having access to media devices in the bedroom resulted in poorer sleep, even when children did not use them.

For college-age young adults, the social media pull remains strong: One survey found that 93% of Gen Z respondents reported staying up past their bedtime to partake in social media.

Kaylor expressed surprise at the Norwegian study's conclusion regarding social media activities and concern that gaming was not tracked more closely, as she noted that it has been linked to greater sleep disruption elsewhere.

"Overall," Kaylor said, "I find the results interesting but not strong, and more research needs to be done to truly support the claim that social media use in bed before sleep is protective. That claim is quite a stretch."

Tips to practice good sleep hygiene

To help ensure a good night's sleep:

- Limit your screen use in bed and just before bedtime. During that screen time, engage in passive activities that will not excite you too much. Consider listening to music or audiobooks.
- If you want to be sure you won't be affected by blue light, turn on your phone's nighttime blue-light filter. On Apple devices, it is called Night Shift. On Android devices, it may be called Night Light, Blue Light filter, or Eye Comfort Shield.
- Silence your notifications during your sleep period. Use your phone's Do Not Disturb mode. Silence the phone and charge it in another room to ensure the noises it may make do not wake you from sleep. This will also prevent stray light while you sleep, should a device's screen light due to some task it performs.
- If possible, set and follow a consistent bedtime and wakeup time. Your body will learn it, which can help your circadian rhythm adapt to your sleep needs.

As experts continue to clarify the relationship between mobile device use and healthy sleep, practicing good sleep hygiene makes good sense.

Irregular Sleep-Wake Cycles May Raise Heart Attack, Stroke Risk by 26%

Sleep regularity (waking up and going to bed at the same time every day) could be more important than sleep duration in predicting heart attack and stroke.

A new study found that even when individuals got enough sleep, irregular sleep patterns increased their risk of cardiovascular events.

Conversely, more sleep regularity was protective against heart attack and stroke.

If you regularly wake up and go to bed at different times, you could be at increased risk of heart attack and stroke.

According to new research in the Journal of Epidemiology & Community Health, sleep regularity, or how often you stick to the same sleeping and waking schedule, appears to be a stronger predictor of major cardiovascular events than sleep duration.

It is the first study of its kind to look at the effects of both sleep duration and sleep regularity on cardiovascular disease.

The authors found that the risk of heart attack, stroke, and heart failure all increased significantly in people with irregular sleep patterns, even if they got the recommended number of hours of sleep for their age.

Conversely, individuals who adhered most strongly to a regular sleep and wake schedule had a lower risk of major cardiovascular events.

"Sleep irregularity refers to frequently changing sleep schedules, like going to bed and waking up at different times each day, which can disrupt the body and negatively impact health. This research emphasizes the importance of prioritizing sleep regularity in public health guidelines and clinical care to support cardiovascular health," Jean-Philippe Chaput, PhD, a senior scientist at the Children's Hospital of Eastern Ontario Research Institute and first author of the research, told Healthline.

Higher risk of cardiovascular event among irregular sleepers

The large study included more than 72,000 individuals between the ages of 40 and 79 with no history of major cardiovascular events.

All participants were part of the UK Biobank cohort, a biomedical database that includes de-identified data from half a million individuals in the United Kingdom.

Sleep is complex, so researchers attempted to control for a wide variety of factors that could affect the study's outcomes, including age, sex, ethnicity, history of cardiovascular disease, and mental health. They also included important aspects of lifestyle that could affect sleep quality, such as

self-reported sleep problems, whether or not the individual worked odd hours (night shifts), and even screen time.

Another strength of the study is that it did not rely on self-reported sleep data. Participants utilized activity trackers for seven days to record their sleep.

Based on the recorded sleep data, participants were given a "Sleep Regularity Index" (SRI) score; lower scores indicate irregular sleep patterns. Individuals in the cohort were further stratified according to their SRI score into three groups:

- Regular: SRI of greater than 87.3
- Moderately irregular: SRI of 71.6 to 87.3
- Irregular: SRI of less than 71.6

The study found that irregular sleepers had a 26% increased risk of major cardiovascular events, and moderate irregular sleepers had a modest increase of 8%.

The next question for researchers was whether or not getting sufficient sleep could offset the risk of irregular sleep.

Unfortunately, they found that even getting the recommended number of hours wasn't enough to reduce risk for irregular sleepers, but it did have an effect on those in the moderately irregular group.

"While both adequate sleep duration and regular sleep patterns are important, our findings show that meeting sleep duration recommendations alone does not eliminate the increased MACE risk for those with irregular sleep schedules," said Chaput.

In fact, regular sleep patterns were actually found to be protective against cardiovascular outcomes.

A minimum SRI score of 77.1 was associated with a 15% reduction in risk, with even greater benefit occurring with more regular sleep: an SRI of 80.8 yielded an 18% reduction.

How to establish a regular sleep schedule

Getting on a regular sleep schedule is within reach but may take some adjustments.

"The beauty of this study is that its findings are immediately actionable. The very best way to keep a consistent sleep schedule is to wake up at or near the same time every day," Scott Kutscher, MD, a clinical associate professor of psychiatry and sleep medicine at Stanford Medicine, told Healthline.

Other steps for setting a consistent sleep schedule include:

- limiting caffeine intake
- avoiding heavy meals close to bedtime
- limiting screen time before bed
- reducing noise
- making your bedroom "sleep ready" by keeping it dark, quiet, and cool

"Aim to go to bed and wake up at the same time every day, even on weekends. If you struggle with consistency, start by gradually adjusting your sleep and wake times in small increments until you establish a stable routine," said Chaput.

Can Tart Cherry Juice Help You Sleep?

Tart cherry juice may help increase your body's melatonin levels, resulting in better quality sleep. However, more research is needed to confirm its effectiveness.

Tart cherry juice has been touted as a natural aid for improving sleep. This notion isn't entirely without merit, as tart cherries contain melatonin. Melatonin is a naturally secreted hormone that regulates sleep cycles and helps the body transition into sleep.

Tart cherry juice also contains other ingredients, like tryptophan and antioxidants, which may affect the quality of your sleep.

This article examines tart cherry juice in more detail, including why it may help improve sleep quality and what the research has found regarding its effectiveness.

What's in tart cherry juice that may help you sleep?

Tart cherry juice is thought to be a safe and effective way to improve the amount of sleep you get each night. This theory is based on the following sleep-inducing ingredients found in tart cherries:

Melatonin: Tart cherry juice contains melatonin, a naturally secreted hormone that regulates the body's sleep cycles. Research from 2022 has found that supplements containing melatonin may increase the duration and quality of sleep.

Tryptophan: Tryptophan is an amino acid that converts to serotonin and melatonin in your body. They can influence your mood, behavior, and sleep cycles.

Antioxidants: Tart cherry juice is rich in antioxidant and anti-inflammatory compounds that can potentially reduce muscle aches and soreness, making you more comfortable during the night.

What does research say about the ability of tart cherry juice to improve sleep?

Until now, only four studies have looked at the effectiveness of tart cherry juice in improving sleep:

In an early 2010 study, 15 adults over age 65 years with insomnia were asked to drink 1 cup of a tart cherry-apple juice blend or a placebo drink first thing every morning, then again 1 or 2 hours before bed. After 2 weeks, participants who drank the tart cherry juice scored slightly better on an index that measured the severity of their insomnia.

In a 2012 study, 20 volunteers consumed either a placebo or tart cherry juice concentrate for 7 days. Researchers found that melatonin was significantly elevated in the cherry juice group, and they gained significant increases in sleep duration and quality.

A 2-week 2018 study of 8 adults over age 50 years found that participants who drank 240 mililiters (mL) of tart cherry juice twice per day slept more than participants who drank the placebo.

A 2022 study followed 19 elite female field hockey players over 5 days, dividing them into two groups. One group consumed 200 mL of tart cherry juice in the morning and 200 mL in the evening. The other group consumed the same quantity of a placebo. Researchers found that the group consuming tart cherry juice experienced improved sleep quality.

While these initial studies demonstrated positive changes in the quality of sleep for those who consumed tart cherry juice, larger and longer-term studies are still needed to confirm the effectiveness of tart cherry juice in improving sleep.

How much tart cherry juice should you drink if you want to try it for yourself?

If you're interested in seeing whether tart cherry juice can help improve your sleep, you can follow the doses used in the studies noted above.

Most of the research studies asked participants to consume two 8-ounce (240-mL) glasses of tart cherry juice daily, once in the morning and once in the evening.

Be sure to buy tart cherry juice without added sugar, as consuming sugar before bedtime can interfere with your sleep.

If you want to try tart cherry juice in a powder or pill form, you can take approximately 480 miligrams (mg) per day.

In the studies, benefits were mostly observed after 7 to 10 days of supplementing with tart cherry juice or powder. So, if you're not seeing results after 2 weeks, you can assume it's not working for you.

Precautions

Tart cherry juice is safe for most people. However, it does contain high amounts of sorbitol, a sugar alcohol that can cause stomach upset and diarrhea for some.

In addition, tart cherry juice also contains quercetin, a plant compound that may interact with certain medications, particularly blood thinners. If you're currently taking medications, talk with a doctor before adding tart cherry juice to your diet.

While smaller, short-term studies have pointed to the benefits of tart cherry juice for improving sleep quality, larger and more long-term studies are needed to confirm its effectiveness.

If you're having difficulty getting to sleep or staying asleep, talk with a doctor. They can determine what might be undermining your sleep quality and provide recommendations for improvement.