

# Does the full moon make us sleepless? A neurologist explains the science behind sleep, mood and lunar myths

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How much does the moon cycle affect sleep? Probably less than your screen time at night.

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Have you ever tossed and turned under a full moon and wondered if its glow was keeping you awake? For generations, people have believed that the Moon has the power to stir up sleepless nights and strange behavior – even madness itself. The word “lunacy” comes directly from *luna*, Latin for Moon.

Police officers, hospital staff and emergency workers often swear that their nights get busier under a full moon. But does science back that up?

The answer is, of course, more nuanced than folklore suggests. Research shows a full moon can modestly affect sleep, but its influence on mental health is much less certain.

I'm a neurologist specializing in sleep medicine who studies how sleep affects brain health. I find it captivating that an ancient myth about moonlight and madness might trace back to something far more ordinary: our restless, moonlit sleep.

## **What the full moon really does to sleep**

Several studies show that people really do sleep differently in the days leading up to the full moon, when moonlight shines brightest in the evening sky. During this period, people sleep about 20 minutes less, take longer to fall asleep and spend less time in deep, restorative sleep. Large population studies confirm the pattern, finding that people across different cultures tend to go to bed later and sleep for shorter periods in the nights before a full moon.

The most likely reason is light. A bright moon in the evening can delay the body's internal clock, reduce melatonin – the hormone that signals bedtime – and keep the brain more alert.

The changes are modest. Most people lose only 15 to 30 minutes of sleep, but the effect is measurable. It is strongest in places without artificial light, such as rural areas or while camping. Some research also suggests that men and women may be affected differently. For instance, men seem to lose more sleep during the waxing phase, while women experience slightly less deep and restful sleep around the full moon.



Sleep loss from a bright moon is modest but measurable.

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## **The link with mental health**

For centuries, people have blamed the full moon for stirring up madness. Folklore suggested that its glow could spark mania in bipolar disorder, provoke seizures in people with epilepsy or trigger psychosis in those with schizophrenia. The theory was simple: lose sleep under a bright moon and vulnerable minds might unravel.

Modern science adds an important twist. Research is clear that sleep loss itself is a powerful driver of mental health problems. Even one rough night can heighten anxiety and drag down mood. Ongoing sleep disruption raises the risk of depression, suicidal thoughts and flare-ups of conditions like bipolar disorder and schizophrenia.

That means even the modest sleep loss seen around a full moon could matter more for people who are already at risk. Someone with bipolar disorder, for example, may be far more sensitive to shortened or fragmented sleep than the average person.

But here's the catch: When researchers step back and look at large groups of people, the evidence that lunar phases trigger psychiatric crises is weak. No reliable pattern has been found between the Moon and hospital admissions, discharges or lengths of stay.

But a few other studies suggest there may be small effects. In India, psychiatric hospitals recorded more use of restraints during full moons, based on data collected between 2016 and 2017. In China, researchers noted a slight rise in schizophrenia admissions around the full moon, using hospital records from 2012 to 2017. Still, these findings are not consistent worldwide and may reflect cultural factors or local hospital practices as much as biology.

In the end, the Moon may shave a little time off our sleep, and sleep loss can certainly influence mental health, especially for people who are more vulnerable. That includes those with conditions like depression, bipolar disorder, schizophrenia or epilepsy, and teenagers who are especially sensitive to sleep disruption. But the idea that the full moon directly drives waves of psychiatric illness remains more myth than reality.

## **Other theories fall short**

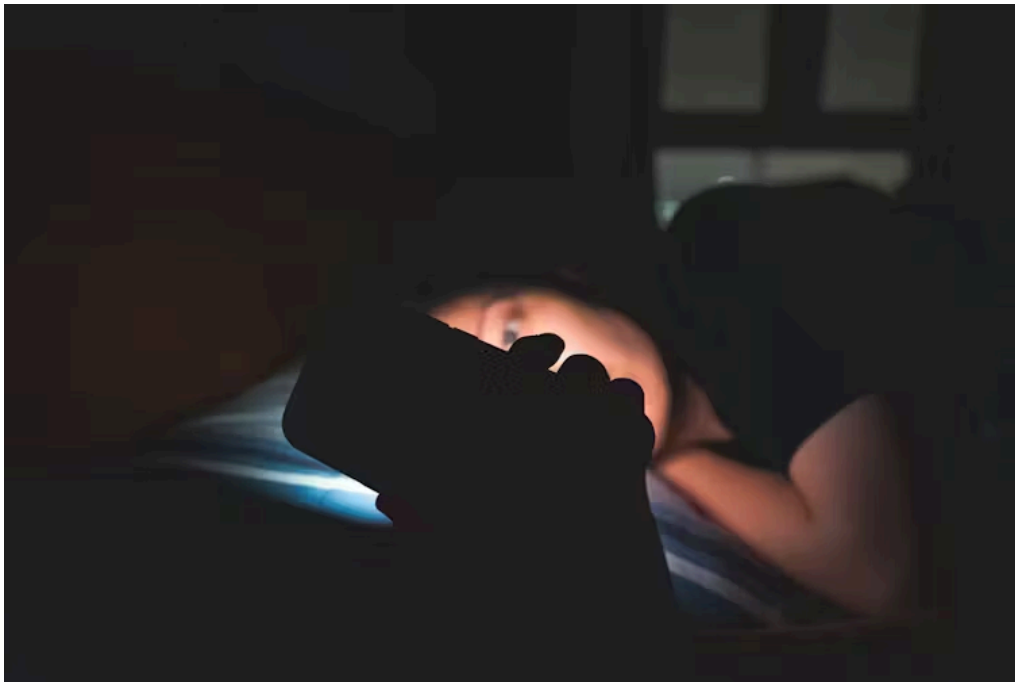
Over the years, scientists have explored other explanations for supposed lunar effects, from gravitational "tidal" pulls on the body to subtle geomagnetic changes and shifts in barometric pressure. Yet, none of these mechanisms hold up under scrutiny.

The gravitational forces that move oceans are far too weak to affect human physiology, and studies of geomagnetic and atmospheric changes during lunar phases have yielded inconsistent or negligible results. This makes sleep disruption from nighttime light exposure the most plausible link between the Moon and human behavior.

## **Why the myth lingers**

If the science is so inconclusive, why do so many people believe in the “full moon effect”? Psychologists point to a concept called illusory correlation. We notice and remember the unusual nights that coincide with a full moon but forget the many nights when nothing happened.

The Moon is also highly visible. Unlike hidden sleep disruptors such as stress, caffeine or scrolling on a phone, the Moon is right there in the sky, easy to blame.



Screen-time habits are far more likely to have detrimental effects on sleep than a full moon.

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## **Lessons from the Moon for modern sleep**

Even if the Moon does not drive us “mad,” its small influence on sleep highlights something important: Light at night matters.

Our bodies are designed to follow the natural cycle of light and dark. Extra light in the evening, whether from moonlight, streetlights or phone screens, can delay circadian rhythms, reduce melatonin and lead to lighter, more fragmented sleep.

This same biology helps explain the health risks of daylight saving time. When clocks “spring forward,” evenings stay artificially brighter. That shift delays sleep and disrupts circadian timing on a much larger scale than the Moon, contributing to increased accidents and cardiovascular risks, as well as reduced workplace safety.

In our modern world, artificial light has a much bigger impact on sleep than the Moon ever will. That is why many sleep experts argue for permanent standard time, which better matches our biological rhythms.

So if you find yourself restless on a full moon night, you may not be imagining things – the Moon can tug at your sleep. But if sleeplessness happens often, look closer to home. It is likely a culprit of the light in your hand rather than the one in the sky.

Joanna Fong-Isariyawongse does not work for, consult, own shares in or receive funding from any company or organization that would benefit from this article, and has disclosed no relevant affiliations beyond their academic appointment.

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