

Feelings of Loneliness Linked to Lack of Sleep

- A tipoff that you're not sleeping enough is frequently feeling emotionally off-kilter or struggling with a short fuse. You'll have better success at managing your emotions when getting a sufficient amount of sleep
- Recent research suggests even the emotion of loneliness may be tied to lack of sleep; the more sleep deprived you are, the less social you become, and others pick up on the cue that you want to be left alone
- People who struggle with loneliness also tend to have trouble sleeping. For each 1-point increase on the UCLA loneliness scale, you are 8 percent more likely to experience some sort of sleep disruption
- The epidemic of loneliness eclipses sleep deprivation, with half of Americans reporting feeling lonely. The loneliest are young adults between the ages of 18 and 22
- Eighteen to 22-year-olds also rate their health the lowest, which correlates with science linking loneliness with a greater risk for obesity, heart disease, anxiety, dementia and reduced life span

By Dr. Mercola

Lack of sleep has been scientifically linked to a wide array of health problems — including obesity, high blood pressure and heart problems — and has been identified as a public health epidemic by the U.S. Centers for Disease Control and Prevention.

According to the American Sleep Association,¹ up to 70 million Americans have a sleep disorder, nearly 40 percent unintentionally fall asleep during the day at least once a month and nearly 5 percent have nodded off while driving at least once.

A review of hundreds of sleep studies concluded that, as a general rule, most adults need somewhere between seven and nine hours — or right around eight hours — of [sleep](#) per night to maintain good health.

A common tipoff that you're not sleeping enough is frequently feeling emotionally off-kilter or struggling with a short fuse. There's compelling evidence showing you'll have better success at managing your emotions when getting a sufficient amount of sleep on a nightly basis. Interestingly, recent research suggests even the emotion of loneliness may be tied to lack of sleep.

Sleep Deprivation Fuels Feelings of Loneliness

The study^{2,3,4} in question, performed by University of California, Berkeley, researchers, found lack of sleep has the effect of triggering feelings of loneliness. As reported by The Guardian:⁵

"It was a small study — 18 young adults were tested, after a good night's sleep and an interrupted one. When viewing video clips of people walking towards them and being asked to stop the tape when they felt the person was getting too close, in a sleep-deprived state they kept the person at a distance of up to 60 percent further back.

Brain scans during the experiment also showed more activity in the area that perceives threats when the participants were sleep-deprived. In another experiment, 1,000 people were asked to rate photographs of people — some in a sleep-deprived state — according to how socially attractive they seemed.

The sleep-deprived people came off worse. And the researchers concluded that sleep-related alienation could 'trigger the transmission of loneliness' — after viewing clips of sleep-deprived people, otherwise healthy and happy participants then felt lonelier."

According to senior author Matthew Walker, professor of psychology and neuroscience, "sleep deprivation can turn us into social lepers." In short, the more sleep deprived you are, the less social you become, and others pick up on this largely subconscious cue to be left alone. "That vicious cycle may be a significant contributing factor to the public health crisis that is loneliness," Walker told The Guardian.⁶

Lonely People Often Struggle With Poor Sleep

Another vicious cycle is that people who struggle with loneliness also tend to have trouble sleeping, so these two problems really tend to feed on each other. For example, a 2011 study⁷ found that for each 1-point increase on the UCLA loneliness scale,⁸ an individual is 8 percent more likely to experience some sort of sleep disruption.

The UCLA loneliness scale includes a set of 20 questions, with four possible answers ranging from "I never feel this way" to "I often feel this way." Each possible answer has a score ranging from zero to 3. Possible loneliness scores range from a low of 20 to a high of 80. Examples of questions include "I am unhappy doing so many things alone," "I have nobody to talk to" and "I find myself waiting for people to call or write."

A more recent study⁹ involving 2,000 adult Britons also found that lonelier individuals had poorer sleep quality than those who did not struggle with loneliness. According to the Kings College London press release:¹⁰

"Lonelier people were 24 percent more likely to feel tired and have difficulty concentrating during the day, according to the study ... Loneliness is defined by researchers as a distressing feeling that people experience when they perceive their social relationships to be inadequate.

This is distinct from the concept of social isolation, as people can be socially isolated without feeling lonely, or feel lonely despite being surrounded by many people. While the effect of being lonely is well documented among the elderly, it is a common problem for

young people too — the Mental Health Foundation reports that loneliness is most frequent between the ages of 18 to 34."

Loneliness Has Reached Epidemic Levels in US

According to the most recent statistics, the epidemic of loneliness eclipses sleep deprivation, with half of Americans reporting feeling lonely.^{11,12} In a Cigna insurance health survey of 20,000 individuals aged 18 and over:

- 46 percent reported feeling lonely "sometimes" or "always"
- 47 percent said they felt "left out"
- 56 percent stated they felt that the people around them "are not necessarily with them"
- 40 percent said they lack companionship, and that the relationships they do have aren't meaningful
- 40 percent reported feeling isolated

The loneliest are young adults between the ages of 18 and 22, who had a median loneliness score of 48.3. This age group also rated their health the lowest, which correlates with science linking loneliness with a greater risk for obesity, heart disease, anxiety, dementia and reduced life span.

In fact, maintaining strong and healthy social connections has been linked to a 50 percent reduced risk of early death.¹³ The national average loneliness score for all age groups in the U.S. is presently 44. Millennials, aged 23 to 37 had a median score of 45.1. Surprisingly, seniors over the age of 77 — an age group well-known for loneliness — had the lowest loneliness score (38.6).

In the interview above, chief medical officer for Behavioral Health at Cigna, Dr. Douglas Nemecek, tells CBS News, "All of us can make an effort to meet with somebody, have a cup of coffee and have a meaningful in person conversation. That's a great first step for all of us to start to impact this."

That said, getting more sleep just might be part of the equation as well because, like loneliness, lack of sleep has been shown to have a significant impact on your health, and actually affects many of the same exact health problems, including your heart health.

Lack of Sleep Ages Your Heart

Studies have linked poor sleep with a variety of health problems. Most recently, a set of studies links sleep deprivation with excessive aging of your heart. You're probably familiar with the notion of [biological age](#), which can differ significantly from your chronological age.

In a recent study¹⁴ involving "a representative sample of U.S. adults," people who got seven hours of sleep each night had hearts showing signs of being 3.7 years older, based on biological age, than their chronological age. Here, "heart age" was defined as "the predicted age of a person's vascular system based on their cardiovascular risk profile."

This concept was initially introduced by the Framingham Heart Study published in 2008. People who regularly slept either six or eight hours had hearts that were on average 4.5 years older than their chronological age, while those who got just five hours or less of sleep each night had the oldest biological heart age — 5.1 years older than their chronological age. As noted by lead author Quanhe Yang, senior scientist in the Division for Heart Disease and Stroke Prevention of the U.S. Centers for Disease Control and Prevention:¹⁵

"The difference between a person's estimated heart age and his or her chronological age is 'excess heart age.' Higher excess heart age indicates a higher risk of developing heart disease.

For example, if a 40-year-old man has a heart age of 44 years based on his cardiovascular risk profile — the personal risk of having a heart disease — then his excess heart age is 4 years. In effect, his heart is 4 years older than it should be, for a typical man his age. The concept of heart age helps to simplify risk communication."

Of the 12,755 participants in this study, 13 percent slept just five hours or less per night; 24 percent got six hours; 31 percent got seven hours; 26 percent slept for eight; and about 5 percent got nine or more hours of sleep each night.

Considering the [ideal sleep time](#) — based on hundreds of studies looking at sleep and health — is between seven and nine hours, these statistics reveal at least 37 percent of American adults aren't getting anywhere near healthy amounts of sleep.

Poor Sleep Quality Linked to High Blood Pressure and Vascular Inflammation

Other recent research¹⁶ further strengthens the link between sleep problems and [high blood pressure](#) and heart disease. While this link has been previously noted, a set of studies found that even if you sleep a healthy number of hours, the quality of that sleep can have a significant impact on your risk for high blood pressure and vascular inflammation associated with heart disease.

Here, 323 healthy women between the ages of 20 and 79 wore sleep trackers that recorded onset, duration and quality of their sleep. Those who had mild sleep disturbance such as taking longer to fall asleep or waking up one or more times during the night were "significantly more likely to have high blood pressure than those who fell asleep quickly and slept soundly," Forbes reports.¹⁷ According to the researchers:¹⁸

"Mean sleep duration was 6.8±1.3 hours/night in the population study and 7.5±1.1 hour/night in the basic study. In the population study sample, 50 percent had poor sleep quality versus 23 percent in the basic study, and 37 percent had some level of insomnia versus 15 percent in the basic study.

Systolic blood pressure was associated directly with poor sleep quality, and diastolic blood pressure was of borderline significance with obstructive sleep apnea risk after adjusting for confounders. Poor sleep quality was associated with endothelial nuclear factor kappa B activation.

Insomnia and longer sleep onset latency were also associated with endothelial nuclear factor kappa B activation ... These findings provide direct evidence that common but frequently neglected sleep disturbances such as poor sleep quality and insomnia are associated with increased blood pressure and vascular inflammation even in the absence of inadequate sleep duration in women."

Helpful Sleep Remedies

If you're currently not sleeping enough, or getting poor quality sleep, your chief aim would be to:

- Make sure you're getting sufficient amounts of sleep each night by going to bed earlier. A [fitness tracker that tracks your sleep](#) cycle can be helpful
- Address factors that prevent you from falling asleep quickly and staying asleep throughout the night. Common culprits include room temperature, light pollution and [electromagnetic field \(EMF\) exposure](#) (the latter of which I review in the section below)

For a long list of tips on how to improve your sleep quality, see "[Sleep — Why You Need It and 50 Ways to Improve It](#)." In the short term, you could try a gentle sleep aid while implementing more permanent lifestyle and/or environmental changes. Natural sleep remedies that can be helpful include:

•**Melatonin** — Start with as little as 0.25 milligrams (mg) and work your way up in quarter-gram increments from there until you get the desired effect.

•**Valerian root** — Studies have found [valerian root](#) helps improve the speed at which you fall asleep, depth of sleep (achieving deep sleep 36 percent faster¹⁹) and overall quality of sleep.²⁰

Start with a minimal dose and use the lowest dose needed to achieve the desired effect, as higher dosages can have an energizing effect in some people. Typical dosages used in studies range between 400 mg and 900 mg, taken anywhere from 30 minutes to two hours before bed.

•**Chamomile** — This herb is typically used in the form of infusions, teas, liquid extracts or essential oils made from the plant's fresh or dried flower heads. It has sedative effects that may help with sleep, which is why chamomile tea is often sipped before bed. It also inhibits CD38 that consumes NAD+ so it will raise your NAD+ levels.

•**Cannabidiol (CBD) oil** — Another alternative is to take [CBD oil](#). By bringing tissues back into balance, CBD oil helps reduce pain, nerve stimulation and muscle spasm. It also promotes relaxation and has been shown to improve sleep.

•**5-hydroxytryptophan (5-HTP)** — The chemical 5-HTP promotes production of serotonin, thereby giving mood a boost and enhancing sleep. In one study, an amino acid preparation containing both [GABA](#) (a calming neurotransmitter) and 5-HTP reduced time to fall asleep, increased the duration of sleep and improved sleep quality.²¹

A factor that can have a significant impact on your sleep quality (and overall health) is EMFs emitted from household wiring, electronic and wireless devices. EMF exposure has a detrimental effect on your health regardless of the time of your exposure, but it's particularly problematic at night, for a number of different reasons.

For starters, EMF exposure reduces your melatonin production,²² which will make it more difficult to fall asleep since you may not feel sufficiently sleepy. What's more, melatonin is also a powerful antioxidant, and low levels have been repeatedly linked to an increased risk of cancer,²³ so the impact on your melatonin production can have both short- and long-term effects.

Deep sleep is also the most important time for your brain health, as this is when its detoxification processes ramp up and take place. During deep sleep, your brain's [glymphatic system](#) is activated, allowing it to detoxify and eliminate accumulated waste products, including amyloid-beta proteins, which are a hallmark of Alzheimer's disease.

EMF exposure has also been linked to neuronal changes that affect memory and your ability to learn²⁴— something to keep in mind if you're in school, or have school-aged children. Importantly, EMFs also harm your body's mitochondria by producing excessive oxidative damage. This in turn can cause or contribute to virtually any chronic ailment, including premature aging.

Three Basic Nighttime EMF Remediation Tips

1. Ideally turn your cellphone off or minimally keep it in airplane mode and put it in a faraday bag.²⁵ That will zero out any radiation. Never sleep with your cellphone under your pillow when it's on, or for that matter put it on your body when it is not in airplane mode.

2. If you're currently using your phone as an alarm clock, consider getting a battery-driven alarm or better yet an audio only clock²⁶ that has no light to disrupt your sleep. At bare minimum, keep the cellphone several feet away from your bed.
3. Turn off your Wi-Fi at night. Ideally, hard wire your home so you have no Wi-Fi at all in your home.

4. [Back to Natural Health](#)