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## Does Sleep Affect Cancer Risk?

Although there's not enough research that clearly links sleep with cancer risk, it's important for overall health and well-being. Getting a good night's sleep can benefit your health in many ways – physically, mentally, and emotionally. Long-term sleep problems can affect your risk of developing or worsening health problems.

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### How sleep affects your health

Getting enough sleep and getting quality sleep allows your body and brain time to rest and recover. It is important for your overall health. While you are sleeping, your body:

- Uses less energy
- Restores energy
- Repairs itself (if you're sick or have an injury)

During sleep, your body and brain activity decrease, which lowers blood pressure and controls body temperature. Meanwhile, other activities increase during sleep, such as production of hormones needed for growth and development.

However, many people have trouble sleeping. When sleep is disrupted or not long enough, your brain and body may not be able to function as they should. Any change in your usual sleeping habits can make it harder to do everyday activities.

Experts at the American Academy of Sleep Medicine say getting at least 7 hours of

sleep per night is good for adults. Children need more sleep, about 8-12 hours of sleep per night, depending on their age, activity level, and growth patterns.

### **Sleep cycle and sleep quality**

The quality of your sleep matters too. Poor quality sleep, where sleep is interrupted or you don't go through all the phases of the sleep cycle, can also affect your health. In a normal sleep cycle, there are 2 main stages: **REM (rapid eye movement) sleep** and **non-REM sleep**. Quality sleep includes both non-REM sleep, which allows the body to relax and repair itself, and the deeper REM sleep, which supports brain activity and mental health.

### **Circadian rhythm and sleep patterns**

Your sleep patterns are also influenced by your body's circadian rhythm, which acts as an internal clock. It follows a natural 24-hour cycle, helping to regulate when you feel awake or sleep.

When you don't get to sleep on time, or don't get enough sleep, your **circadian rhythm** can be disrupted. This can cause **circadian rhythm disorders**, such as temporary jet lag, shift work sleep disorder and delayed sleep-wake phase disorder. Some other problems related to changes in circadian rhythm include:

- **Short sleep:** Not sleeping long enough
- **Long sleep:** Sleeping more than usual
- **Insomnia:** Difficulty falling or staying asleep
- **Hypersomnia:** Oversleeping or sleeping more than usual
- **Parasomnia:** Abnormal behavior during sleep, such as having night terrors or sleepwalking

### **Other sleep problems**

Sleep problems might also be caused by health problems such as:

- **Sleep apnea:** Interrupted or paused breathing during sleep that causes snoring and frequent waking
- **Restless leg syndrome:** Uncomfortable sensations in the legs with an uncontrolled urge to move your legs around
- **Narcolepsy:** Extreme sleepiness and falling asleep during the day

## Does sleep affect cancer risk?

The answer is not yet known. Researchers continue to study how sleep might affect cancer risk. Some studies suggest that the risk of cancer may increase when there are chronic sleep problems. This means the body's sleep cycle is disrupted, and the disruptions continue for long periods of time.

One theory is that chronic sleep problems may affect how well our immune system works. Quality sleep is known to strengthen the immune system, and a chronic lack of quality sleep can weaken it. When weakened, the immune system is less likely to catch and prevent abnormal cell growth. Abnormal cell growth increases the risk for cancer.

### What the research shows

Studies on sleep and cancer risk have unclear results, but here are a few key findings.

**Short and long sleep:** Some studies show mixed results on short sleep (4-5 hours) and long sleep (more than 9 hours) as an increased risk for cancer. Scientists leading these studies believe that short sleep doesn't allow the body time to restore and rest and this might increase the chance of abnormal cell growth that could lead to cancer. More research is needed, but a couple of these studies suggest:

- Short sleep may be linked to a higher risk for breast, colorectal, lung, and prostate cancers.
- Long sleep may be linked to an increase in colorectal and lung cancer risk.

**Shift work:** Shift work is common for workers in health care, law enforcement, airlines and travel, factory and mill work, retail stores, and the military. Shift work may involve varying work hours, switching shifts every few weeks, or working a non-traditional shift like a night shift.

Research suggests working shifts long-term may be linked to an increased risk of cancers. Some studies suggest this is because less **melatonin** is used when you're awake. Melatonin is a hormone made by the brain that helps get your body ready for sleep. It also plays an important role in balancing other hormones like cortisol and estrogen.

**Sleep apnea:** Experiencing short pauses in your breathing while you sleep might increase cancer risk. Some people don't know they have sleep apnea. A sleep study

can be done to find out if you have it and how serious it might be.

Sleep apnea can be mild (a few pauses of breath) to severe (a lot of pauses of breath). Some studies showed that people with moderate or severe sleep apnea might be at an increased risk of cancer. Scientists believe this is because paused breathing during sleep can cause the body to get stressed, and less oxygen may be available to the



[activity.html](#)

3. [www.cancer.org/cancer/risk-prevention/diet-physical-activity/alcohol-use-and-cancer.html](http://www.cancer.org/cancer/risk-prevention/diet-physical-activity/alcohol-use-and-cancer.html)

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