

‘Why can’t I sleep?!’

NIH is taking a closer look at why we don’t get enough rest



A good night’s rest does more than energize you—sleep can affect your mood, keep your heart healthy, and help you feel better when you’re sick. But not everyone gets enough sleep every night to feel rested. In fact, about [1 in 3 adults](#) in the United States say they don’t get enough sleep. At the same time, racial and ethnic minorities and people with lower incomes are [most likely](#) to be sleep deprived.

These groups are also more likely to live in segregated neighborhoods or unsafe housing. They are less likely to have access to health care, healthy food, green space, or places to exercise. They are also more likely to live near environmental hazards and experience discrimination. These factors are called social determinants of health (SDOH).

SDOH can cause a lot of stress, and stress makes it harder to get enough sleep. That’s why researchers are looking at SDOH more closely to help people get better sleep.

Marishka K. Brown, Ph.D., Director of the National Center on Sleep Disorders Research (NCSDR), said that people of different racial or ethnic backgrounds of the same socioeconomic status tend to have similar health.

But when their living environments change, their health often changes, too. In other words, it’s about place...not race.

“For the longest time, a lot of research focus was on the biology...on the individual,” said Dr. Brown. “We know that’s important; we know those factors contribute to health. We know genetics matter...but it’s not the biggest piece.”

Noisy neighbors and poor air quality can keep you awake

[One way](#) to get enough sleep is to keep bedrooms as dark and quiet as possible. But in urban areas, it may be hard to keep bedrooms completely dark. This can be due to things like streetlights outside or motion-sensor lights for safety reasons. Surrounding noise from the street or neighbors close by can also make it hard to fall and stay asleep.

Another is to keep bedrooms cool, but this can be a problem, too. Big cities can turn into “[heat islands](#)” and become hotter than surrounding towns. That’s due to less tree cover and more pavement or buildings that absorb heat.

“One of the things your body does naturally for sleep is cool itself down,” Dr. Brown said. “But if you are in a space that is 10 or 15 degrees hotter than the surrounding population in the suburbs...those populations are disadvantaged.”

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Air quality is also a concern for sleep health because it can cause breathing problems. In urban areas, air pollution can worsen respiratory problems such as [asthma](#), especially in children.

Black children are also [four to six times more likely](#) to have sleep-disordered breathing problems than White children. But this is not due to genetics—it's tied to living in households with lower incomes and in more environmentally hazardous communities.

Irregular schedules hinder wellness

Sticking to a bedtime routine or sleep schedule is a great way to get enough shut eye every night, but this may not be possible for people who work irregular hours. Shift workers, emergency personnel, health care professionals, or truck drivers are some people who do not always work a regular 9 a.m. to 5 p.m. schedule.

Getting enough quality sleep can also be hard for people who work nights. Your body's circadian rhythm (a series of physical, mental, and behavioral changes in your body that follow a 24-hour cycle) is very sensitive to light. Staying awake at night and sleeping during the day can [disturb your circadian rhythm](#). This can cause other biological processes such as your immune system to not perform well.

Over time, irregular sleep can lead to diabetes, heart disease, high cholesterol, and obesity. The National Heart, Lung, and Blood Institute (NHLBI) [studied](#) irregular sleep patterns in a group of about 2,000 people



Truck drivers, shift workers, and emergency personnel are more likely to work irregular schedules, which can lead to lack of sleep.

ages 45 to 84 and followed them for five years. People with irregular sleep patterns were more than twice as likely to develop cardiovascular disease compared to those with regular sleep patterns. This was even more common among racial and ethnic minorities.

Getting help for sleep problems is not always easy

Access to health care is important for sleep health and wellness in general. Treating underlying conditions may be necessary to get better sleep. For example, if you are not sleeping well, your health care provider may suggest [doing a sleep study](#) with a specialist to see if you have a sleep disorder such as [sleep apnea](#) or [narcolepsy](#).

But for people without health insurance or living in rural areas, seeing a specialist may not be an option.

“Someone in the middle of Iowa who doesn't have a large academic center anywhere near them is going to have serious challenges with seeing a specialized provider,” Dr. Brown said. “Remote options such as telehealth could begin to break down some of those barriers, but currently they still exist.”

Interest in sleep health research—and in finding solutions to eliminate health disparities—is growing. NCSDR, the National Institute on Minority Health and Health Disparities, and other institutes across NIH are coming together to find connections between sleep and community health.

“It is so enlightening to see the focus on sleep disparities, particularly in the context of social determinants of health,” Dr. Brown said. ■



Dr. Marishka K. Brown (left), Director of NCSDR at NHLBI, and Dr. Chandra Jackson, an investigator for environment and sleep research at the National Institute of Environmental Health Sciences, talk about sleep health and the effects of the pandemic. Watch the video [here](#)