

Having a Disrupted Body Clock Increases Your Risk of Early Death

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STORY AT-A-GLANCE

- Circadian Syndrome (CircS), a serious health risk marked by sleep issues, depression, and metabolic dysfunction, significantly raises your risk of dying from chronic illnesses and early death
- A major study of over 16,000 adults in the U.S. and China found that people with CircS have far higher death rates, especially from diabetes, heart disease, and kidney disease
- Signs of circadian disruption — like insufficient sleep or belly fat — may appear mild, but could actually become lethal when combined with other CircS traits, highlighting the danger of ignoring seemingly common symptoms
- Artificial light exposure, irregular schedules, and "social jetlag" all disrupt your internal clock, increasing your risk of obesity, high blood pressure, cancer, and metabolic disease, especially in older adults
- To reset your body clock, get morning sunlight, avoid nighttime screens, move daily, and manage your stress — these small changes help restore your body's natural rhythm and vitality

Like a conductor leading an orchestra, your circadian rhythm is a 24-hour cycle that governs many of your body's processes. It ensures that all your body functions are in sync, working together harmoniously to keep you healthy and well-functioning.

So when this internal timekeeper becomes disrupted, it takes a significant toll on your health, exacerbating your risk of chronic conditions. Experts have coined a term for this chronic disruption that causes your internal clock to go out of sync — Circadian Syndrome (CircS) — and a 2025 study found that it not only puts you at risk of diabetes, but also leads to early mortality, particularly among middle-aged and older adults.¹

Your Internal Clock Isn't Just About Sleep

A large, multi-country study published in Scientific Reports² examined the long-term health outcomes of over 16,000 adults aged 40 and up in the United States and China. The researchers investigated how Circadian Syndrome affects your risk of dying from various diseases.

- **What is Circadian Syndrome?** CircS refers to a cluster of metabolic, emotional, and sleep-related problems that signal your body clock is severely out of sync.

According to an article in News-Medical.Net, seven components could indicate CircS. The researchers noted that having four out of these seven classifies you as having the condition:³

- Hypertriglyceridemia
- Central obesity (belly fat)
- Low high-density lipoprotein (HDL) "good" cholesterol
- Hypertension
- Hyperglycemia
- Sleep deprivation (getting less than six hours of sleep at night)
- Depressive symptoms

- **Many people normalize these symptoms** – Millions of people struggle with these health issues, but many choose to ignore them. However, this combination is lethal, especially for older adults.
- **What happens when your body clock is consistently out of sync?** According to the featured study, people with CircS have the highest risk of early death. Based on their findings, CircS is "significantly correlated with mortality attributed to cardiovascular, cerebrovascular, kidney disease, diabetes, malignant neoplasms, Alzheimer's disease, certain infections, and death from all causes."⁴

Circadian Syndrome Raises Your Risk of Early Death

The researchers of the featured study used the U.S. National Health and Nutrition Examination Survey (NHANES) database and the China Health and Retirement Longitudinal Study (CHARLS). A total of 7,637 adults from China and 9,320 from the U.S. were tracked for nearly a decade.⁵

*"Of the 7,637 participants in the Chinese survey, 2,270 had CircS; 4,335 respondents out of 9,320 in the American study had the condition. In both cohorts, people with CircS were older and had higher rates of chronic diseases, including heart disease, hypertension, and diabetes," News-Medical.Net reports.*⁶

- **People who were flagged as having Circadian Syndrome were significantly more likely to die early** – Most of the causes were from metabolic causes. In the U.S. data, the risk of dying from diabetes was 6.8 times higher in people with CircS. As for kidney-related deaths, the risk was 2.5 times higher.
- **There were notable differences in mortality rates between Chinese and American participants** – In the Chinese cohort, the death rate was 2.9 per 1,000 person-years for those with CircS, compared to 2.0 for those without.

In the American group, the contrast was even more dramatic — 18.56 deaths per 1,000 person-years versus 10.9 for those without this condition. That's a nearly 70% higher death rate just for having this pattern of metabolic and circadian dysfunction.

- **It wasn't just metabolic disease** — Alzheimer's, cancer, and even infections like pneumonia were also more likely to take the lives of those with CircS. One of the strongest associations was seen among middle-aged adults, particularly those between 40 and 60 years old. For this group, the risk was consistently elevated across nearly every major cause of death.
- **The risk remained even after adjusting for other factors** — To make their findings more reliable, the researchers used sophisticated modeling techniques — including Bayesian generalized linear models — to back up their findings.

In simple terms, they ran multiple types of statistical tests to ensure the associations weren't flukes. The highest risk levels — like the 6.8-fold increase in diabetes deaths — held firm even when adjusting for age, gender, and other baseline health differences.

- **Each component of the syndrome adds weight to your risk** — The researchers noted a "graded association," meaning your risk of dying goes up steadily with each additional CircS trait you check off. This is especially alarming when you consider that these issues are common and often brushed off.

The next time you think sleeping just five hours a night or having excessive body fat isn't a big deal, remember this — if combined with blood sugar problems or high blood pressure, it becomes a deadly cocktail. The more components of CircS you have, the greater your risk of going to an early grave.

Your Health Depends on Keeping Your Circadian Rhythms in Sync

Your circadian rhythm influences everything in your body, from when you feel tired and awake to when your body releases certain hormones like melatonin and cortisol. Your body temperature, digestion and metabolism are also controlled by this internal clock. But it's not only found in humans; most living things, including plants, animals, fungi, and even some bacteria, have their own circadian rhythms as well.⁷

- **The importance of the suprachiasmatic nucleus (SCN)** — A tiny region found in your brain, the SCN is at the center of your circadian rhythm. It's often called the "master clock" because it's the main control center for your circadian rhythm.
- **Your circadian rhythm relies on light and darkness signals** — The SCN receives light cues directly from your eyes. When light enters your eyes, it sends signals to the SCN, which then interprets these signals to determine the time of day. This helps synchronize your internal clock with the external world.
- **Your body's central circadian clock is not alone** — There are "**peripheral clocks**," also known as peripheral oscillators, located in your tissues and nearly every organ, including the liver, lungs, heart, and skeletal muscles. Their role is to help regulate local physiological processes in coordination with the master clock in the SCN.

It's important to remember that everyone's internal clock is slightly different, which is why **the concept of chronotypes** was developed.

This categorizes people as either "morning larks" (those who wake up early naturally; they feel most energetic in the morning) or "night owls" (those who prefer to stay up late and are more productive in the evening). These individual differences in circadian rhythm significantly influence daily routines, preferences, and even how well someone performs at certain times of day.

Common Factors That Throw Off Your Circadian Rhythm

Many factors today throw your circadian rhythms off kilter. One example is jet lag. When you travel across time zones, your internal clock goes out of sync with the local time. This leads to fatigue, difficulty sleeping, and other symptoms.

- **One of the biggest culprits is artificial light** — Considered modern-day conveniences, the advent of electronic devices like smartphones, tablets, and computers that emit blue light is one of the primary factors that affect your circadian rhythm.

Blue light interferes with melatonin production, the hormone that makes you sleepy, making it harder to fall asleep and stay asleep. When you use these devices before bedtime, it delays your sleep onset and disrupts your sleep quality significantly.

- **Exposure to any amount of light during nighttime is detrimental to older adults** — One study found that it increases their risk of obesity, high blood pressure, and diabetes.⁸ In another study, researchers found that higher exposure to outdoor light at night increases the risk of postmenopausal breast cancer.⁹ There's evidence linking it to a higher risk of thyroid cancer as well, especially since thyroid function is regulated by the circadian rhythm.¹⁰
- **Many people also work irregular schedules** — Shift work and irregular work schedules also disrupt your circadian rhythm. Every time you work nights or rotate shifts, you're forcing your body to operate on a schedule that's out of sync with the natural day-night cycle.
- **"Social jetlag" is another factor** — Basically, this refers to having a different sleep schedule during weekdays and weekends. It usually happens when people choose to sleep in on weekends so they will "catch up" on the sleep they missed during the week.

However, this shift in sleep timing throws off your internal clock; it makes it more difficult for you to get back on track when the workweek starts again. Think of it this way — It's like you're constantly changing time zones every weekend, making it difficult for your body to establish a consistent rhythm.¹¹

Other factors include chronic stress, lack of exposure to sunlight, and consuming an unhealthy diet. The good news is that there are ways to reset your circadian clock and reduce your risk of Circadian Syndrome.

How to Fix Your Internal Body Clock to Protect Your Health

If you're waking up groggy and grabbing sugar just to stay alert, your body clock is sending you warning signals. This is particularly dangerous, especially if you also have stubborn belly fat, high blood pressure, or symptoms of depression, as it could mean you're already dealing with the early stages of Circadian Syndrome.

Fixing the issue starts with resetting the rhythm your body depends on to heal, burn energy, and stay alive. Here are strategies to help you get started:

- 1. Get outside within 30 minutes of waking up** — Your body needs direct early morning sunlight to reset its internal clock each day. Make it a habit to step outside within the first hour of waking up. Getting morning sunlight helps regulate your melatonin production, keeping your sleep-wake cycle balanced. Aim for 10 to 15 minutes of direct morning sunlight (don't wear sunglasses) every day.
- 2. Follow a consistent bedtime routine** — Going to bed and waking up at the same time every day, even on weekends, reinforces your circadian rhythms. To ensure you get high-quality sleep, one of the first things you need to do is to eliminate all blue light sources from your bedroom.

Scrolling your phone, watching TV in bed, or working late on your laptop sends your brain signals that it's still daytime. Cut your screentime at night, ideally avoiding artificial light 90 minutes before bed. If your bedroom gets light pollution from outside, use blackout shades or wear a sleep mask. For more helpful sleep tips, check out "[Top 33 Tips to Optimize Your Sleep Routine](#)."

- 3. Incorporate movement into your routine** — Your circadian rhythm isn't just about sleep — it's also about metabolism. Getting your muscles moving in the morning tells your body it's time to wake up and use energy. I recommend 10 to 15 minutes of light movement (ideally under early morning sunlight). Try walking, stretching, or even bodyweight squats.
- 4. Practice mindfulness techniques** — Your circadian clock function is also closely connected to your body's stress response system.¹² Practicing relaxation techniques like mindfulness, meditation, and yoga to manage stress will help sync your circadian rhythms.
- 5. Track your sleep and body temperature** — If you really want to take control, start collecting real data on your rhythm. Use a thermometer to take your oral temperature each morning and afternoon. Your waking temp needs to ideally be around 97.8 degrees F (36.5 degrees C) and reach 98.6 degrees F (37 degrees C) by late afternoon. If it doesn't, your metabolism is dragging.

At the same time, track how many hours you sleep, when you fall asleep, and how rested you feel. You don't need a fancy device — just write it down. After two weeks, you'll identify your patterns clearly, and see what's working and what's not.

If you start with these steps, you'll be addressing the core issue that drives Circadian Syndrome. Most people are too focused on treating symptoms with pills or supplements. But you don't need to medicate your way back to health; you simply need to reintroduce your body to the rhythm it was designed to follow. Fix that first, and everything else will fall into place.

Frequently Asked Questions (FAQs) About Circadian Syndrome

Q: What is Circadian Syndrome and why is it dangerous?

A: Circadian Syndrome (CircS) is a cluster of health issues — like sleep deprivation, belly fat, depression, and metabolic dysfunction — that signal a disrupted internal body clock. It's linked to a higher risk of early death from diseases like diabetes, heart and kidney conditions, cancer, and Alzheimer's.

Q: How does Circadian Syndrome increase the risk of early death?

A: People with CircS have significantly higher mortality rates. In the U.S., for example, individuals with CircS were 6.8 times more likely to die from diabetes and 2.5 times more likely to die from kidney disease, even after adjusting for other health factors.

Q: What are the warning signs or symptoms of a disrupted body clock?

A: Key signs include chronic sleep deprivation, abdominal obesity, high blood pressure, low HDL cholesterol, high blood sugar, and depressive symptoms. Having four or more of these suggests you have CircS.

Q: What factors in modern life disrupt the circadian rhythm?

A: Blue light from screens, irregular work schedules, lack of natural sunlight, night-time light exposure, and inconsistent sleep routines all throw your circadian rhythm off track, leading to serious long-term health effects.

Q: How can I restore my circadian rhythm and lower my health risks?

A: Simple lifestyle changes will help. Get morning sunlight, avoid screens before bed, maintain a consistent sleep schedule, exercise regularly, manage stress, and track your sleep and temperature patterns to monitor progress.

Sources and References

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