

Non-24-Hour Sleep-Wake Disorder

A multi-systemic disorder of the body's timing mechanism

What is Non-24?

"Non-24 is a circadian rhythm disorder in which an individual's biological clock fails to synchronize to a 24-hour day. Instead of sleeping at roughly the same time every day, someone with Non-24 will typically find their sleep time gradually delaying by minutes to hours every day. They will sleep at later and later clock times until their sleep periods go all the way around the clock. Patients' cycles of body temperature and hormone rhythms also follow a *non*-24-hour rhythm. Attempts to fight against this internal rhythm and sleep on a typical schedule result in severe and cumulative sleep deprivation" (*NORD*, *rarediseases.org*).

What causes Non-24?

The circadian rhythm is the body's clock. It is governed and influenced by many systems; it is neurological, hormonal/steroidal, genetic, and is influenced by light in our environment. The core function lies in the brain's suprachiasmatic nucleus (SCN), the master circadian clock. Non-24 can be caused by blindness without light perception, traumatic brain injury (mTBI/TBI), neurodivergence, pituitary or pineal adenomas, genetic mutations, and more. Non-24 was first recorded in 1970 by three scientists from the University of Manchester; the patient was sighted. Due to lack of research, it is unclear how prevalent Non-24 is, especially in the sighted. It is considered a rare disorder and many doctors, even sleep specialists, may not be aware of it due to its rarity; this makes getting the correct diagnosis and treatment very difficult. "24 percent of people with a circadian rhythm disorder spent a decade or longer getting the correct diagnosis and 77 percent were misdiagnosed during that process, often multiple times" (*Mansbach, Fadden, McGovern, 2023*).

What is it like to live with Non-24?

Many with Non-24 must follow their Non-24-hour circadian rhythm, meaning the time they fall asleep and wake up changes daily, often unpredictably. Having Non-24 makes it difficult-to-impossible to maintain work and other responsibilities, a social life, doctor appointments, and much more. It can affect body temperature, digestion, cortisol and adrenal function, and so on.

Non-24 is considered a disability. Life with Non-24 can be isolating and can lead to depression, mood disorders, anxiety, and brain fog, but these are consequences, not causes. Non-24 patients also deal with stigma and sleep-shaming; i.e., sleeping during daylight hours does not make a person lazy. **The circadian rhythm is a biological process and cannot be controlled with willpower.**

More Info & Resources: SightedNon-24.org CSD-N.org RareDiseases.org/rare-diseases/non-24-hour-sleep-wake-disorder SleepFoundation.org/non-24-sleep-wake-disorder/living-managing

The information provided is not a substitute for professional medical advice & should not be considered medical advice. Please consult with a qualified medical professional for diagnosis and treatment.