

Circadian Rhythm And Blues: When Your Body Clock Can't Reset

(NAPSA)—Most of us feel alert when it's light outside and want to sleep when it's dark. Light is the cue that helps our internal body clock—or “master body clock”—synchronize to the 24-hour day. In people with a circadian rhythm disorder, however, the timing of this clock is disrupted, causing our rhythms to get out of sync.

Non-24-Hour Disorder, or Non-24, is one of the rarest and most difficult-to-correct circadian rhythm disorders. People with Non-24 lack the day-night cues needed to help regulate their master body clock. The disorder, although rare in the general population, is unfortunately very common in people who are totally blind, affecting 50 to 70 percent of people who are totally blind.

Normally, light is the primary environmental time cue that resets the body clock each day, but in totally blind people, the lack of light information reaching the brain causes the clock to run on its own time, which in most people is naturally longer than 24 hours. People with Non-24 have a master body clock that continually delays, putting them to sleep later and later each night. Eventually, the night turns into day, with patients having an overwhelming drive to sleep in the day and stay awake at night, before cycling back to normal and beginning the cycle all over again.

The inability to live on a 24-hour day makes it difficult to keep to a schedule and hold a traditional job, attend school, or even socialize regularly. The lack of sleep associated with the disorder can decrease alertness and memory, which are essential to daily functioning. In addition, Non-24 can cause shifts in body temperature and hormone



“Jet-lagged for life” is how a circadian rhythm disorder has been described. Fortunately, scientists are working on ways to treat it.

secretion, and alter the pattern of mood and performance.

“Some people who have non-entrained rhythms find the condition so disruptive that it is as bad as being blind,” said Harvard neuroscientist Steven Lockley. “Imagine the worst jet lag possible for sometimes weeks on end—that’s what some of these patients are going through.”

Although Non-24 impacts people’s sleep patterns, it is not just a “sleep disorder”—it is a disruption of the master body clock that affects much more than sleep, such as metabolism and immune function. Diagnosing the condition is not as simple as conducting an overnight sleep test. Instead, doctors should look for changes in sleep and wake cycles over several weeks using a sleep diary, while also assessing changes in the timing of hormones such as melatonin and cortisol, in order to diagnose this circadian rhythm disorder.

There are no FDA-approved treatment options currently available for totally blind people living with Non-24, but studies are under way. For more information on Non-24, visit www.non-24.com.