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DISEASES HAUNT AS CIRCADIAN RHYTHM IS UPSIDE DOWN

The circadian rhythm is the human endogenous rhythm period, also commonly referred to as the circadian clock, with a cycle of approximately 24.2 hours, slightly longer than the normal day. It can be adjusted to 24 hours by the external environment (such as light-dark cycle). A Circadian Rhythm Disorder results from a misalignment (desynchronization) between the endogenous sleep-wake rhythm (the biological clock) and the exogenous circadian rhythm. Causes may be endogenous (eg, delayed sleep phase or early syndrome) or exogenous (eg, jet lag, shift work).

Circadian rhythm disorder can be divided into delayed sleep phase disorder (DSPD), early sleep phase disorder (ASPD), non-24-hour sleepwake disorder (N24SWD), and irregular sleepwake cycle disorder (ISWR).

The prevalence of DSPD is 0.17%, and it generally occurs in early adolescence. Patients are usually best at night, with 3 to 6 hours of delayed sleep phase, inability to fall asleep before 2 am to 6 am, and fall asleep between 10 am and 1 pm, with daytime drowsiness, irritability, and poor work performance. The predisposing cause is usually the inability to fall asleep after a night shift, exposure to light at night, or travel jet lag. The prevalence of ASPD is 1%, and it usually occurs with age after middle age. Patients usually go to bed three hours earlier than the average person, wake up from 2 am to 5 am, have uncontrollable sleepiness in the evening, and even suffer from depression at night, feeling unhappy and unable to participate in any activities.

ISWR is characterized by a normal 24-hour sleep period in which patients experience fragmented and highly disrupted sleep, manifested by frequent nighttime awakenings and daytime naps, but still maintain adequate total sleep time. N24SWD occurs most often in people who are blind and unable to detect light and is characterized by a chronic sleep/wake cycle pattern that is not bound by a 24-hour day-night environmental cycle, and patients typically experience a gradual but predictable delay in sleep onset and wakeup time.

Physiological changes in the body synchronize and pull each other, and when one is out of tune, it affects the other's rhythm. The related treatment must also have a time rhythm. Therefore, we encourage patients to develop good sleep habits during the day and night to play a positive cycle. During the day, the patient has a regular wake-up time, sun exposure, exercise in the evening, planning regular activities, stress adjustment should not be disordered, and taking the medication regularly; while at night, the patient should have a regular sleep time, avoid excessive activity or brain-straining activity at night, and avoid the use of irritants. substances, avoid blue light exposure, and prepare yourself for a comfortable sleeping environment.