

Circadian Rhythm Disorders

Circadian rhythm disorders are disorders of the timing of the light-dark cycle response in humans around the 24-hour clock.

They comprise the following:

- Delayed sleep phase syndrome (most commonly encountered)
- Advanced sleep phase syndrome
- Irregular sleep-wake schedule – most commonly seen in association with antipsychotic medications
- Free-running rhythm (commonly encountered in blind people with NO light perception)
- Shift work disorder
- Jet-lag

What is delayed sleep phase syndrome?

This is a circadian rhythm disorder which is an exaggerated 'night owl' pattern of sleep and wakefulness. Generally, the person with DSPS has sleep onset and waking times that are delayed by 3-6 hours compared to conventional sleep-wake times. The person with DSPS is sleepy and ready to go to bed at about 2-6am and generally gets up at 10am to 1pm. Sleep itself is normal.

This sleep-wake pattern must be present for at least 3 months for the diagnosis to be made.

How common is DSPS?

DSPS can occur in children and into old age. It is more common in adolescence and young adults. It is estimated that about 7% of young adults and adolescents have DSPS.

What are the symptoms of DSPS?

People usually present with complaints of not being able to get to sleep before morning (insomnia) and having severe difficulty with getting up in the morning at socially appropriate times (e.g. for school and employment). They may complain of daytime tiredness and sleepiness and this may lead to impairment of school and job performance. They are most tired in the morning and increasingly feel more alert during the day.

Aetiology of DSPS

A combination of factors most likely results in DSPS. There are genetic factors associated with the circadian clock genes and some cases run in families. There may be subtle problems in the regulation of the circadian rhythm and also with sleep recoverability. **Behaviour plays a strong role in reinforcing DSPS.**

Diagnosis can be made on the basis of a sleep diary over a month and by actigraphy