

## Delayed Sleep Phase Syndrome

Delayed sleep phase syndrome (DSPS) is a disorder in which the person's sleep-wake cycle (internal clock) is delayed by 2 or more hours. Basically, it is a shift of the internal clock by 2 or more hours, in that sleep is postponed. Having DSPS, especially adolescents who attend school, can cause significant problems, as they are unable to get up for school or work, often resulting in multiple absences and tardiness and may perform poorly.

Delayed sleep phase syndrome usually develops during adolescence. Although the cause of DSPS is not completely known, it likely is an exaggerated reaction to the normal shift in sleep times that occurs during adolescence. All adolescents have a shift in their internal clock after puberty of about 2 hours. In those with DSPS, the clock shifts even more. In addition, for persons who already had a tendency to go to bed late, this normal 2-hour shift results in a significantly shifted internal clock. Approximately 7% of adolescents have DSPS; thus, it is a common disorder.

A person with DSPS often experiences the following symptoms:

- **Daytime sleepiness.**
- **Inability to fall asleep at the desired time.**
- **Inability to wake up at the desired time.**
- **No other sleep complaints.**
- **Other daytime symptoms.** Depression and other behavior problems that effect missing school, work and social activities.

There is no definitive test for DSPS, so the diagnosis is made based on a description of the problem. An overnight sleep study may be recommended to ensure that no other sleep disorder is present, such as obstructive sleep apnea or restless legs syndrome/periodic limb movement disorder.

Delayed sleep phase syndrome is a difficult disorder to treat and requires significant effort on the part of the patient. Thus, for treatment to be successful, the person has to be very motivated. The goal of treatment is to retrain the internal clock to a more regular schedule. However, making the initial shift in the Sleep-wake cycle is easier than maintaining that change. Treatment can involve the following:

- **Sleep hygiene**
- **Shifting the internal clock.**
- **Phase advancement.** Phase advancement involves moving the bedtime earlier by 15 minutes on successive nights. If the individual usually falls asleep at 2:30, then bedtime is set for 2:15 for one or two nights, 2:00 for one to two nights, and so on.
- **Bright-light therapy.** Sometimes bright-light therapy is recommended, which involves exposing the patient to bright light in the morning for approximately 20 to 30 minutes, and avoiding bright light in the evening. Bright light in the morning helps to reset the body's internal clock.