



Delayed Sleep Phase Syndrome, common in many adolescents and college students, shifts the body clock so it is hard to fall asleep at night.

DSPS is a sleep disorder in which the cycle of sleep and wakefulness in a person's 24-hour day is significantly delayed. As a result, the clock-dependent alerting mechanism in our brains that releases the hormones that give us energy gets activated a lot later at night than we may like it to.

A sufferer then has trouble falling asleep at a desired time, instead being up and awake for too long or lying in bed with a racing mind. It is a bit like jet lag.

The other side to DSPS is of course the morning, where it's often too difficult to wake up on time for work or school. Naturally, being up very late can make it extremely difficult to wake up within the parameters of the person's daily schedule, (a delayed sleep phase syndrome sufferer who is unable to sleep before 2 to 4 am will obviously have a real difficulty, or even complete inability, to wake up at a "normal" time the following day.

This leads to a cycle that can have serious consequences for everything from mood to alertness to productivity.

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Who is affected?

Although delayed sleep phase syndrome can occur in just about anyone, it is extremely common among young adults and college students, largely due to the schedules they maintain. Behaviour as simple as having a frequent late-night schedule is enough to shift the circadian rhythm and bring on **DSPS**.

It is easy for a college student to develop DSPS and somewhat difficult to get rid of. College students are often up until late hours of the night working on papers or studying for tests, and in such a schedule their body clocks adjust to this so they can be alert at these times.

DSPS in young people can typically look something like the scenes above. Low clock-dependent alerting in the afternoon causes them to be tired during parts of the day, but when the alerting mechanism kicks in at night it makes them alert, wired, and ready to have fun at times when most people are asleep.

Staying awake until the early hours of the morning, of course leads to a higher tendency to sleep-in late. This can lead to two outcomes. Depending on his or her schedule the student will either sleep late every day, shifting his or her biological clock and circadian rhythm to this new pattern; or, say if the student has classes early in the mornings during the week and has to get up for them, he or she will begin accumulating large amounts of sleep debt. This, combined with late night activities over the weekend leads to students sleeping well into the afternoons on Saturday and Sunday, but as a result, it then becomes very difficult to fall asleep at a "reasonable" time, and so the process repeats.

Officially Diagnosing Delayed Sleep Phase Syndrome

There appears to be three main criteria for officially diagnosing DSPS:

Patient has chronic difficulty falling asleep at desired time to meet their daily schedules – work, school, etc. Typically patient reports inability to sleep before 2 to 6 am.

The patient reports having dealt with these symptoms for at least six months, mostly for multiple years.

When not required to maintain their schedule–i.e. weekends, holidays, etc.–patient sleeps without difficulty, and will awaken spontaneously after a sleep period of normal length.

Although these are the criteria for officially diagnosing, obviously a delayed sleep phase can be present in individuals for a period less than 6 months and still have a profound effect.

Treatment of Delayed Sleep Phase Syndrome

Some patients diagnosed with DSPS who are frustrated with the condition and want to wake up well rested at a reasonable time in the morning report having tried various unsuccessful methods of trying to fall asleep earlier.

There are so many myths out there for helping people sleep. But there are also proven ways to shift your sleep schedule back to normal. Because delayed sleep phase syndrome involves the same mechanisms as jet lag, these treatments work well for both.

Many older adults with chronic delayed sleep phase syndrome often lament that behavioural treatments do little to nothing for them. Indeed, some sufferers have much more difficulty phase advancing their biological clocks than others. For stories of this, check out the visitor-submitted DSPS experiences.

Bright Light Therapy

Often the most successful treatment of DSPS is a method known as Bright Light Therapy.

Bright light therapy, used strategically in the morning, can help shift the biological clock back so you can sleep at night.

Researchers have discovered that it is possible to reset the human biological clock via exposure to bright light. Essentially, through strategic use of bright enough light you can shift when your clock-dependent alerting occurs, and therefore how early you are tired.

This method was not discovered for some time because the light in fact needs to be of a sufficient luminosity, similar to outdoor light, in order to work (above 10,000 lux). Most standard indoor lighting is significantly below the 10,000 lux mark needed for this to be effective. But the treatment can be easily administered in a clinic or by getting your own light box.

A light box is a box of fluorescent lights above the necessary brightness of 10,000 lux. The individual positions the box so that the most intense light is shined into the periphery of the retina, where the majority of eye receptors are located.

Sleeping Pills

Sleeping pills are often seen as dangerous or addictive. But in reality, if used properly, they can be an extremely effective tool for healthy sleep and are not normally addictive.

So how can they be used to combat delayed sleep phase syndrome? In theory, it's pretty simple really. Take a dose a bit before your desired bedtime; let the sleeping pill outweigh

your clock-dependent alerting, fall asleep at the time you want, and then wake up refreshed at an early time in the morning. Then, once night rolls around again, you'll have been awake for a longer period of time since you woke up earlier, and will be more prone to fall asleep at the time you want again.

In practice, the sleeping pill technique can have mixed results depending on the severity of the DSPS. For some extreme cases, the pills may still not overpower the clock-dependent alerting, leading easily to more frustration.

Sleep Debt

Ironically, even though sleep debt is one of the negative consequences of delayed sleep phase syndrome, it can also be a cure. Sleep debt increases the biological tendency to go to sleep (it makes you tired), so accumulating enough of it to outweigh your clock-dependent alerting can make it easier to fall asleep earlier in the night.

This method works best for mild cases of delayed sleep phase syndrome, in particular in cases involving adolescents who tend to sleep in very late in the morning or afternoon and thus don't have a huge sleep debt anyway.

DISCLAIMER: While every effort is made to ensure medical accuracy, this paper should not be used to diagnose or treat a sleep disorder. In all cases the advice of a properly qualified medical practitioner should be sought.

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