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ADHD and Sleep Disorders

About the series: These five information sheets provide an overview of attention-deficit/hyperactivity disorder (ADHD) and some of the more common conditions that coexist with ADHD. Extended versions of each may be found at www.help4adhd.org.

Sleep disorders can co-exist with ADHD (Attention-Deficit/Hyperactivity Disorder). The relationship between sleep and ADHD is not a new one. At one time, sleep disturbance was included in the diagnostic criteria for ADHD, but was removed from the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1980.

ADHD AND SLEEP PROBLEMS

There is a significant occurrence of sleep problems in people with ADHD. Up to one half of parents of children with ADHD report their children suffer from a sleep problem, especially problems with falling and staying asleep. These also include greater activity during sleep, restless legs/periodic leg movements, unstable sleep patterns, and greater sleepiness during the daytime. A substantial number of children with ADHD also have a primary sleep disorder that accounts for some of their behavioral difficulties. Researchers speculate that ADHD is associated with a state of increased sleepiness rather than hyperactivity. Hyperactivity could be a coping mechanism to counteract the daytime sleepiness these children experience. Excessive daytime sleepiness is believed to worsen the symptoms of ADHD.

In adults, there is the possibility of diagnostic confusion between narcolepsy, excessive daytime sleepiness of unknown origin and ADHD in self-reporting questionnaires. The overlap between symptoms of sleep disorders and ADHD does lead to questions regarding the possible misdiagnosis of both conditions and how closely they are related.

DIAGNOSIS OF SLEEP DISORDERS

As with other conditions that co-occur with ADHD, many of the symptoms of sleep disorders can mimic ADHD symptoms. They may also be made worse by ADHD symptoms and medications. Screening for sleep problems should be part of the evaluation for ADHD. If a sleep problem is suspected, a thorough sleep history should be taken, including questions about the usual bedtime, time required to fall asleep, whether there are night awakenings, snoring, difficulty waking up, naps, and daytime drowsiness.

COMMON SLEEP DISORDERS

Clinicians should be aware of the co-existence of Restless Leg Syndrome (RLS), Sleep Disordered Breathing (SDB) and Obstructive Sleep Apnea (OSA) with ADHD.

- **Restless Leg Syndrome:** This is one of the more frequent sleep disorders among individuals with ADHD. Daytime manifestations of RLS can mimic ADHD symptoms, such as restlessness and inattention.
- **Sleep Disordered Breathing and Obstructive Sleep Apnea:** SDB and OSA are believed to be more significant in people with ADHD, and the sleep difficulties associated with these disorders can lead to ADHD-like symptoms during the day.

CAUSES OF SLEEP PROBLEMS

The cause of sleep problems in people with ADHD is still largely unknown and further research is needed to better understand the relationship between sleep and ADHD. Studies show no significant differences in how sleep works between children with ADHD and those without. Certain characteristics do seem common across different studies. Activity during sleep has been found to be higher in children with ADHD. Children with ADHD might be sleepier than children without the disorder. Other studies have found children with ADHD show excessive daytime sleepiness, restlessness in sleep, and significant Sleep Disordered Breathing.

Some specific causes of sleep problems that can impede sleep in children or adults:

- **Bedtime resistance:** Children with ADHD may have a great deal of difficulty settling down in the evening.
- **Stimulants:** Caffeine in coffee, tea, chocolate and many carbonated beverages has long been known to increase problems with sleep. Stimulant medications can contribute to sleep disorders in people with ADHD.
- **Co-existing conditions:** Anxiety and depression can lead to difficulties with sleeping, and are often found to exist with ADHD. Drug and alcohol abuse also has a negative impact on a person's ability to sleep.

DEALING WITH SLEEP PROBLEMS

While there is no one specific recommended treatment for sleep problems in children or adults with ADHD, the National Sleep Foundation (NSF) does offer tips to help adults and children sleep better:

- Practice good sleep habits. Maintain a regular bedtime and waking schedule, even on weekends; avoid all caffeine products after late afternoon; avoid nicotine and alcohol close to bedtime; use the bed for

- sleeping only; and avoid having children watch television or videos before bedtime.
- Set up a realistic bedtime and stick to it. Behavioral techniques may be necessary to help children with ADHD stay in bed.
- Pay attention to room environment. Keep the bedroom dark, quiet, cool and comfortable. Keep televisions, computers, videogames and other electronic equipment out of the bedroom.
- Get plenty of exercise earlier in the day. Exercising close to bedtime can make it more difficult to fall asleep, so exercise should be finished at least three hours before bedtime.
- Monitor meal times. Eating heavily too close to bedtime can prevent a good night's sleep. A small snack before bed can ease hunger pains and help maintain a healthy weight.
- Establish a relaxing routine. This helps ease the transition from the activities of the day to the calm restfulness of sleep.
- Discuss medications with your doctor or pharmacist to determine if there are any side effects that could impact sleep.

For more information on ADHD and Sleep Disorders, please see *What We Know #5D: ADHD, Sleep and Sleep Disorders* on our website at: www.help4adhd.org/en/treatment/coexisting/WWK5D.

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