

What is the connection between ADHD and sleep problems?

By: Prof. Dr. Sandra Kooij

ADHD and sleep problems are intimately intertwined in 80% of children and adults with ADHD during lifetime.

The sleep loss results in increased severity of ADHD symptoms, (winter) depression, obesity, and chronic diseases in the long term.

Is ADHD a sleep disorder?

ADHD and sleep problems are intimately intertwined in the majority of children as well as adults. The sleep problems **usually also start in early childhood**. Most people have **difficulty falling asleep** on time, in children described as 'bedtime resistance' and adults are called 'evening types' or 'night owls'. This circadian rhythm disorder, or **Delayed Sleep Phase Syndrome** is associated with a **delayed onset of the sleep hormone melatonin**, as was objectively measured in saliva.¹ ADHD itself is associated with a **dysregulation of the neurotransmitter dopamine**, which is typically produced during daytime. So disturbances in the rhythm of day and night seem implicated in ADHD. Which leads to the question: **could ADHD (also) be a sleep disorder??**.² We are testing this hypothesis in our research. If this is true, treatment of the delayed rhythm may improve ADHD symptoms, leading to a new perspective in the treatment of ADHD.

Besides the delayed sleep rhythm, there are several **other sleep disorders associated with ADHD: Restless Legs** (restlessness before falling asleep)/**Periodic Limb Movement Disorder** (restlessness during sleep), **Insomnia** (arousal,

worrying in bed) and **Sleep Apnea** (sleep breathing disorder).^{3,4,5} Some people with ADHD even have several sleep disorders. **If disturbed sleep is not treated, the treatment of ADHD will be suboptimal due to sleep loss, that induces memory & attention problems and irritability.**

Treatment of sleep and ADHD

Every sleep disorder has its own **specified treatment**:

Delayed sleep is treated by 'Chronotherapy' consisting of 1. **sleep hygiene measures** (no screens at night, or wearing orange goggles to protect the eyes from the blue light, no caffeine at night, shower before bedtime, and many more) 2. **Melatonin** in the evening, and 3. **Light therapy** in the early morning (7-8 am). This combination is an **effective way to reset the late sleep rhythm** in a few weeks. Only sleep hygiene is usually insufficient.

Insomnia is effectively treated by a special **Cognitive Behavior therapy** for Insomnia.⁶

Restless legs by **supplementing ferritin levels** if too low, and **medication**.

Sleep apnea by diet (often in obese people), **prevention of supine position, devices in the mouth** to advance the jaw or tongue, and **CPAP** (Continuous Positive Airway Pressure).

Knowledge about sleep disorders is increasing, but **treatment is not always available** in psychiatry or at the GP. When ADHD is **treated**

with medication and coaching or CBT, and the sleep disorder **according to the guidelines**, the **rhythm of night and day**, memory, attention and mood improve, as well as **control over appetite and weight**. In the long term, this may prevent the development of chronic diseases.

Sleep is our natural medicine.

About the Author



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Further Reading

¹ <https://pubmed.ncbi.nlm.nih.gov/20163790/>

² <https://pubmed.ncbi.nlm.nih.gov/30927228/>

³ <https://pubmed.ncbi.nlm.nih.gov/29221785/>

⁴ <https://pubmed.ncbi.nlm.nih.gov/27423070/>

⁵ <https://pubmed.ncbi.nlm.nih.gov/29086065/>

⁶ <http://freecbti.com/>