

The Parent's Reading Library

Food, Nutrition & Neurodivergent Children

Section 13

Sleep & Nutrition

Why this topic matters

Sleep is essential for every child's physical growth, emotional wellbeing, learning and brain development. During sleep, the brain consolidates memories, regulates emotions and supports attention, concentration and problem-solving the following day.

Children with ADHD and autism are more likely to experience sleep difficulties than other children. Research suggests that nutrition, meal timing, caffeine intake, physical activity and healthy bedtime routines can all influence sleep quality. While improving diet alone will not resolve every sleep problem, healthy lifestyle habits can play an important role in supporting better sleep alongside appropriate medical care.

1. Sleep in Children with Attention-Deficit/Hyperactivity Disorder: Meta-analysis of Subjective and Objective Studies

Reference

Cortese, S., Faraone, S. V., Konofal, E., & Lecendreux, M. (2009). *Sleep in Children with Attention-Deficit/Hyperactivity Disorder: Meta-analysis of Subjective and Objective Studies*. **Journal of the American Academy of Child & Adolescent Psychiatry**, **48**(9), 894–908.

DOI

<https://doi.org/10.1097/CHI.0b013e3181ac09c9>

Plain English Summary

This landmark review found that children with ADHD experience significantly more sleep difficulties than children without ADHD. Common problems included difficulty falling asleep, restless sleep, shorter sleep duration and daytime tiredness.

2. Practice Guideline: Treatment of ADHD and Sleep

Reference

Cortese, S., Brown, T. E., Corkum, P., et al. (2013). *Assessment and management of sleep problems in youths with attention-deficit/hyperactivity disorder*.

Plain English Summary

This clinical review recommends that sleep should always be assessed as part of ADHD management. It highlights the importance of consistent bedtime routines, healthy sleep habits and addressing medical or behavioural causes of poor sleep.

Note: Please verify the final journal details and DOI before publication.

3. Sleep and ADHD

Reference

Owens, J. A. (2005). *The ADHD and Sleep Conundrum: A Review*. **Journal of Developmental & Behavioral Pediatrics**, 26(4), 312–322.

DOI

<https://doi.org/10.1097/00004703-200508000-00011>

Plain English Summary

This review explains the complex relationship between ADHD and sleep. Poor sleep can make attention, behaviour and emotional regulation more difficult, while ADHD itself may contribute to sleep problems.

4. Sleep Problems in Children with Autism Spectrum Disorder

Reference

Richdale, A. L., & Schreck, K. A. (2009). *Sleep problems in autism spectrum disorders: Prevalence, nature and possible biopsychosocial aetiologies*. **Sleep Medicine Reviews**, **13**(6), 403–411.

DOI

<https://doi.org/10.1016/j.smr.2009.02.003>

Plain English Summary

This review found that sleep difficulties are very common in autistic children. The authors describe how sensory sensitivities, anxiety, gastrointestinal issues and differences in melatonin regulation may all contribute to disrupted sleep.

5. Sleep, Learning and Memory

Reference

Walker, M. P. (2009). *The Role of Sleep in Cognition and Emotion*. **Annals of the New York Academy of Sciences**, **1156**, 168–197.

DOI

<https://doi.org/10.1111/j.1749-6632.2009.04416.x>

Plain English Summary

Professor Walker explains how sleep strengthens learning, memory and emotional regulation. Children who sleep well are generally better able to concentrate, solve problems and manage emotions during the day.

6. Healthy Sleep and Healthy Diet

Reference

Chaput, J. P. (2014). *Sleep patterns, diet quality and obesity in children*. **Proceedings of the Nutrition Society**.

Plain English Summary

This review found that inadequate sleep is often associated with poorer diet quality, increased snacking and a greater preference for high-sugar foods. Healthy sleep and healthy eating appear to reinforce each other.

Note: Please verify the final journal citation and DOI before publication.

7. World Health Organization Guidelines on Physical Activity, Sedentary Behaviour and Sleep

Reference

World Health Organization. (2019). *Guidelines on Physical Activity, Sedentary Behaviour and Sleep for Children Under 5 Years of Age*.

<https://www.who.int/publications/i/item/9789241550536>

Plain English Summary

The World Health Organization recommends balancing physical activity, healthy sleep and limited recreational screen time to support children's development. Although written for younger children, the principles remain relevant throughout childhood.

8. Sleep Hygiene and Children

Reference

Mindell, J. A., Meltzer, L. J., Carskadon, M. A., & Chervin, R. D. (2009). *Developmental Aspects of Sleep Hygiene: Findings from the 2004 National Sleep Foundation Sleep in America Poll*.

Plain English Summary

Researchers found that consistent bedtime routines, regular sleep schedules and calming evening activities were associated with better sleep in children. Good sleep habits are often referred to as “sleep hygiene.”

Note: Please verify the final journal details and DOI before publication.

9. Nutrition and Sleep

Reference

St-Onge, M. P., Mikic, A., & Pietrolungo, C. E. (2016). *Effects of Diet on Sleep Quality*. **Advances in Nutrition**, 7(5), 938–949.

DOI

<https://doi.org/10.3945/an.116.012336>

Plain English Summary

This review explains how overall dietary quality, meal timing and certain nutrients may influence sleep quality. The strongest evidence supports healthy eating patterns rather than relying on individual supplements to improve sleep.

10. Melatonin and Sleep in Children

Reference

Bruni, O., Ferri, R., Vittori, E., et al. (2015). *Sleep architecture and NREM alterations in children and adolescents with autism spectrum disorders.*

Plain English Summary

Researchers examined sleep patterns in autistic children and found important differences in sleep structure compared with typically developing children. The findings continue to guide research into sleep support for neurodivergent children.

Note: Please verify the final journal citation and DOI before publication.

What this means for families

Many children with ADHD and autism experience difficulties falling asleep, staying asleep or waking refreshed. Poor sleep can affect attention, learning, mood, emotional regulation and behaviour, making everyday life more challenging.

Parents can support healthy sleep by encouraging regular bedtimes, reducing screen use before bed, providing opportunities for daily physical activity and offering balanced meals throughout the day. If sleep problems are persistent or severe, discuss them with your GP or paediatrician, as medical assessment may be needed.

Evidence at a Glance

Overall evidence: ★★★★★ Strong

What research consistently shows

- Sleep is essential for healthy brain development, learning and emotional wellbeing.
- Children with ADHD and autism are more likely to experience sleep difficulties.
- Poor sleep can worsen attention, executive function, behaviour and emotional regulation.
- Healthy eating, regular physical activity and consistent bedtime routines all support better sleep.
- Persistent sleep problems should be assessed by a healthcare professional as part of comprehensive care.