

QCH Department of Respiratory and Sleep

Sleep in children with Down syndrome (0-2 yrs)



Whilst we know each child is different, we also know young children need to sleep a lot. Establishing routines is very important for infant and maternal well-being and we believe it may be even more so in the Down syndrome population. Common sleep problems in children with Down syndrome may continue into teenage years.

Recommended Sleep Duration for Children Under 2 years:

Newborns	(0 - 3 months)	14-17 hours
Infants	(4 - 11 months)	12-15 hours
Toddlers	(1 - 3 years)	11-14 hours

As children develop in age from Infancy to toddlers and beyond, total daily sleep hours lessen. Sleep develops over time as your child's internal day-night (circadian) rhythm favours sleep at night and being more awake during the day.

Daytime naps are normal until 3-5 years and can vary in length from 30mins to 3-4 hours. Daytime behaviour and function can indicate if your child is getting a good night's sleep.



Why are sleep problems more common in children with Down syndrome?

Children with Down syndrome can have greater difficulty establishing sleep routines compared to typically developing children. Bedtime resistance, sleep anxiety, night waking, parasomnias (sleep walking, sleep terrors, teeth grinding) and daytime sleepiness are all reported commonly in children with Down syndrome.

Sleep problems start at an early age but in children with Down syndrome can persist even as they get older.

- 1) Children with Down syndrome **communicate and think differently**, and this may interfere with their ability to learn good sleep habits, especially when younger.
- 2) Children with Down syndrome may spend **more time in hospital** early in life and this means that their sleep routine could be more disrupted and need more adjustments to home after hospitalisations.
- 3) Children with Down syndrome often have **other medical problems**, and this may mean that developing good sleep routines is less of a priority. Children with Down syndrome may be prescribed **medications** that affect their sleep routines, leading to difficulties with both sleep onset and maintaining sleep through the night.

- 4) **Parental/family stressors** - Parents of children with an intellectual disability often report increased stress and this may make it harder for them to teach their child good sleep habits.

Sleep Continuity and Sleep Associations

Sleep continuity (staying asleep) can be challenging. It can be harder for your child to learn sleep continuity without strict routines. Your child may be experiencing excessive night waking or have sleep associations. Your child may utilise aids to help initiate sleep-onset such as body rocking, dummy or milk.

Challenging sleep behaviours need specialised sleep support and it is important to address these early with your Doctor. The doctor will need to get a full history of your child's sleep problems. It can be helpful to keep a written sleep diary at home for 1-2 weeks before seeing your doctor so that they can get a better idea of where the problems are.

Clinical features of Down syndrome potentially lead to disturbed sleep and/or increased risk for sleep disordered breathing (SDB). These include;

- Hypotonia (Low tone)
- Macroglossia (Large tongue)
- Mid-face hypoplasia (shape of face, flattened nasal bridge)

Restlessness, noisy breathing in sleep, increased breathing effort and sweatiness may indicate your child has a sleep disorder.

Strategies to improve sleep in 0-2 year olds

The strategies used in other children still apply to children with Down syndrome and it is important to follow recommended Australian safe sleeping guidelines.

- **Establish a regular sleep pattern.** Consistency helps your child understand when it is time for sleep. Bedtime should not vary by more than 1 hour.
- **Consistent bedtime routine** to prepare for sleep. Quiet activities before bed, bathing or reading books. Limit noise and dim lighting.
- **Comfortable bedroom** – Child's bedroom should be quiet, comfortable and dark. Bedrooms are for sleep.
- **Settling techniques** – Self-settling, parent settling or Extinction techniques – consider what works for you, your child and your family.
- **Specialised support** is available in your community for you and your child – for further information ask your GP for referral to our Sleep Specialists at Queensland Children's Hospital, Brisbane. Early recognition and management are crucial in the developing child.

Contact us

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