

Practice Brief

Synthesing research evidence to inform practice



Centre for Community Child Health

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Sleep in the early years

Sleep is essential for health, development, learning and wellbeing. However, problems with children's sleep are one of the leading reasons that families seek health practitioner help in the early years.

Being informed about evidence-based behavioural interventions for children's sleep enables health practitioners to work in partnership with families to help them achieve restful nights for the whole household.

We will look at children's sleep between 6 months and 4½ years old and consider typical sleep development, common sleep problems, and evidence-based behavioural strategies that can help when there is a concern.



Childhood sleep

Sleep habits are learned, although they are based on biological needs and rhythms, and change as the child develops. In order for children to get enough sleep, their daily routines need to match their requirements.

A child's sleep cycles and stages are similar in infancy and adulthood.

Throughout life, our sleep is made up of light and deep sleep. Light sleep involves head and muscle movements, while deep sleep involves little or no movement.

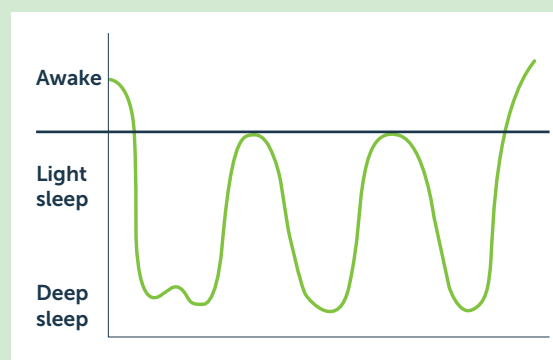


Figure 1: Sleep cycles

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The Royal Children's Hospital Melbourne
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www.rch.org.au/ccch





Typical development in settling and sleep

Newborns (0–2 months)

Newborns sleep 16–20 hours in each 24-hour period, and premature infants may sleep even more. Bottle-fed infants sleep 3–5 hours at a time and breastfed infants 2–3 hours. In the first few weeks, sleep occurs through the day and night with no distinct pattern for each.

For newborns, sleep is divided evenly between light and deep sleep; light sleep happens in the beginning of the sleep cycle between birth and three months, which may contribute to night waking.

Infants (2–12 months)

Infants tend to sleep 9–12 hours at night and have 2–4.5 hours of daytime naps. Depending on the child, this will be between one and four naps, decreasing as children grow older; naps can last 30 minutes to two hours.

Sleep patterns change significantly in these months:

- In the early months, sleep tends to be 50 per cent light and 50 per cent deep.
- At three months the amount of light sleep decreases and infants enter deep sleep at the beginning of the sleep cycle.
- By eight months infants wake every six to seven hours, and 60–70 per cent are able to get themselves back to sleep (self-soothe).

Toddlers (12 months–3 years)

Toddlers are likely to sleep 12–13 hours in a 24-hour period and, around the age of 18 months, naps are likely to decrease from two to one. A more consistent night sleep cycle is likely during this period. However, night waking might increase at around 12 months of age because of separation issues.

Preschool-aged children (3–5 years)

By preschool age, children typically sleep 11–12 hours over a 24-hour period and naps decrease from one to none.

Sleep's important role

In terms of clinical problems, the two most common sleep problems for children are night waking and settling problems.

Severe night waking has been defined as waking that occurs five or more times a week over three months, and includes one of the following:

- waking three or more times a night
- staying awake for more than 20 minutes after waking
- going into the parents' bed.

A settling problem is defined as taking more than 20 minutes to settle on five or more nights a week over at least two months.

Sleep disorders

Sleep disorders are any difficulties related to sleeping, including:

- difficulty falling or staying asleep
- falling asleep at inappropriate times
- excessive total sleep time
- abnormal behaviours associated with sleep.

Regardless of whether a child meets clinical criteria for a sleep problem, parental concern about the child's sleep is enough reason to discuss their concerns with a professional.

Behavioural interventions for sleep problems

Behavioural interventions are generally used for children over six months of age. Younger infants may still require night feeds, may still be establishing a mature sleep-wake rhythm, and may not respond to behavioural management techniques. However, it is never too early to start establishing good sleep hygiene. Read more about what makes up good sleep hygiene on the Raising Children Network raisingchildren.net.au/articles/promoting_good_sleep.html

Behavioural interventions involve health professionals working with a family to develop an individualised sleep management plan with appropriate strategies; supporting families to carry out the strategies; and providing advice about related issues such as bedtime routines, daytime sleeps and practices that may contribute to sleep problems.

Some behavioural interventions may be at odds with existing parenting practices. Health professionals can work in partnership with parents to develop sleep strategies that are acceptable for all.

The way children are settled to sleep will become their preferred way to return to sleep after waking naturally. The aim of behavioural interventions is to help a child 'unlearn' problematic settling behaviour and replace it with more constructive behaviour (that is, falling asleep without the help of an adult).

Behavioural interventions have been found to be the most successful for addressing sleep problems. The ones that have been shown to have the best potential efficacy include: positive routine, controlled comforting (previously called controlled crying), camping out, and scheduled waking.

In addition to choosing a technique with a parent, the professional needs to ensure that the infant has a good bedtime routine and is getting enough sleep during the day.

Positive routine

Positive routines can help toddlers and preschool-aged children who show resistance to settling by establishing a calm and quiet routine in the hour before bed.

Read more about establishing a positive routine
raisingchildren.net.au/articles/positive_bedtime_routine.html

Controlled comforting

Controlled comforting aims to teach an infant who is older than 6 months to self-settle by quickly checking and reassuring the baby while they learn to settle themselves. There is strong evidence to support the use of controlled comforting to teach self-settling in infants older than 6 months, and no evidence of any harm as measured at 6 years.

Read more about establishing a controlled comforting routine
raisingchildren.net.au/articles/controlled_comforting.html

Camping out

Camping out is similar to controlled comforting, as the child is left to settle alone and is not removed from the cot or bed when they cry out. Camping out is a gentler technique as the parent remains in the room with the child in a bed or chair near the child, which may be more acceptable for some families.

Read more about establishing a camping out routine
raisingchildren.net.au/articles/camping_out.html

Scheduled waking

Scheduled waking is used most commonly with children who have prolonged and persistent night terrors. It has also been used effectively with children who are having problems with night waking.

In scheduled waking, the child is woken as much as an hour before she or he is likely to spontaneously wake, and then re-settled using the regular bedtime routine. Gathering accurate information about a child's typical sleep routine is a necessary part of establishing scheduled waking.
raisingchildren.net.au/articles/night_terrors.html



Strategies for professionals

1. Sleep problems are common among children and have an impact on children and their families.
2. Practitioners should ask families about their child's sleep.
3. Positive routines at bedtime and good sleep hygiene can be simple to implement and effective for managing child sleep.
4. There is a range of evidence-based and effective behavioural interventions to support families to manage child sleep.

Further resources

For more information, see *Sleep Problems in Children* by Dr Katrina Hannan and Prof Harriet Hiscock
www.racgp.org.au/download/Documents/AFP/2015/December/december-focus-hannan.pdf

Online infant sleep e-learning is available through The Royal Children's Hospital Centre for Community Child Health
www.rch.org.au/ccch/training-dev/Infant_Sleep_eLearning/

For tertiary care, there are sleep clinics for children at children's hospitals around Australia. In Melbourne, you can read more about the sleep clinic at The Royal Children's Hospital here
www.rch.org.au/ccch/services/clinics/Sleep_clinic/

This Practice Brief has been written by Eliza Metcalfe and reviewed by Dr Krishna James.

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