

Children and Sleep

Every living creature needs to sleep. It is the primary activity of the brain during early development. Circadian rhythms, or the sleep-wake cycle, are regulated by light and dark and these rhythms take time to develop, resulting in the irregular sleep schedules of newborns. The rhythms begin to develop at about six weeks, and by three to six months most infants have a regular sleep-wake cycle.

By the age of two, most children have spent more time asleep than awake and overall, a child will spend 40 percent of his or her childhood asleep. Sleep is especially important for children as it directly impacts mental and physical development.

There are two alternating types or states of sleep:

Non-Rapid Eye Movement (NREM) or "quiet" sleep. During the deep states of NREM sleep, blood supply to the muscles is increased, energy is restored, tissue growth and repair occur, and important hormones are released for growth and development.

Rapid Eye Movement (REM) or "active" sleep. During REM sleep, our brains are active and dreaming occurs. Our bodies become immobile, breathing and heart rates are irregular.

Babies spend 50 percent of their time in each of these states and the sleep cycle is about 50 minutes. At about six months of age, REM sleep comprises about 30 percent of sleep. By the time children reach preschool age, the sleep cycle is about every 90 minutes.

Sleep and Newborns (1-2 months)



For newborns, sleep during the early months occurs around the clock and the sleep-wake cycle interacts with the need to be fed, changed and nurtured. Newborns sleep a total of 10.5 to 18 hours a day on an irregular schedule with periods of one to three hours spent awake. The sleep period may last a few minutes to several hours. During sleep, they are often active, twitching their arms and legs, smiling, sucking and generally appearing restless.

Newborns express their need to sleep in different ways. Some fuss, cry, rub their eyes or indicate this need with individual gestures. It is best to put babies to bed when they are sleepy, but not asleep. They are more likely to fall asleep quickly and eventually learn how to get themselves to sleep. Newborns can be encouraged to sleep less during the day by exposing them to light and noise, and by playing more with them in the daytime. As evening approaches, the environment can be quieter and dimmer with less activity.

Sleep Tips for Newborns

- Observe baby's sleep patterns and identify signs of sleepiness.
- Put baby in the crib when drowsy, not asleep.
- Place baby to sleep on his/her back with face and head clear of blankets and other soft items.
- Encourage nighttime sleep.

Sleep and Infants (3-11 months)



By six months of age, nighttime feedings are usually not necessary and many infants sleep through the night; 70-80 percent will do so by nine months of age. Infants typically sleep 9-12 hours during the night and take 30 minute to two-hour naps, one to four times a day – fewer as they reach age one.

When infants are put to bed drowsy but not asleep, they are more likely to become "self-soothers" which enables them to fall asleep independently at bedtime and put themselves back to sleep during the night. Those who have become accustomed to parental assistance at bedtime often become "signalers" and cry for their parents to help them return to sleep during the night.

Social and developmental issues can also affect sleep. Secure infants who are attached to their caregiver may have less sleep problems, but some may also be reluctant to give up this engagement for sleep. During the second half of the year, infants may also experience separation anxiety. Illness and increased motor development may also disrupt sleep.

Sleep Tips for Infants

- Develop regular daytime and bedtime schedules.
- Create a consistent and enjoyable bedtime routine.
- Establish a regular "sleep friendly" environment.
- Encourage baby to fall asleep independently and to become a "self-soother."

Sleep and Toddlers (1-3 years)



Toddlers need about 12-14 hours of sleep in a 24-hour period. When they reach about 18 months of age their naptimes will decrease to once a day lasting about one to three hours. Naps should not occur too close to bedtime as they may delay sleep at night.

Many toddlers experience sleep problems including resisting going to bed and nighttime awakenings. Nighttime fears and nightmares are also common.

Many factors can lead to sleep problems. Toddlers' drive for independence and an increase in their motor, cognitive and social abilities can interfere with sleep. In addition, their ability to get out of bed, separation anxiety, the need for autonomy and the development of the child's imagination can lead to sleep problems. Daytime sleepiness and behavior problems may signal poor sleep or a sleep problem.

Sleep Tips For Toddlers:

- Maintain a daily sleep schedule and consistent bedtime routine.
- Make the bedroom environment the same every night and throughout the night.
- Set limits that are consistent, communicated and enforced. Encourage use of a security object such as a blanket or stuffed animal.

Resource Materials from Healthy Start Fall Forum 2009
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Sleep and Preschoolers (3-5 years)



Preschoolers typically sleep 11-13 hours each night and most do not nap after five years of age. As with toddlers, difficulty falling asleep and waking up during the night are common. With further development of imagination, preschoolers commonly experience nighttime fears and nightmares. In addition, sleepwalking and sleep terrors peak during preschool years.

Sleep Tips for Preschoolers

- Maintain a regular and consistent sleep schedule.
- Have a relaxing bedtime routine that ends in the room where the child sleeps.
- Child should sleep in the same sleeping environment every night, in a room that is cool, quiet and dark – and without a TV.

Sleep and School-aged Children (5-12 years)



Children aged five to 12 need 10-11 hours of sleep. At the same time, there is an increasing demand on their time from school (e.g., homework), sports and other extracurricular and social activities. In addition, school-aged children become more interested in TV, computers, the media and Internet as well as caffeine products – all of which can lead to difficulty falling asleep, nightmares and disruptions to their sleep. In particular, watching TV close to bedtime has been associated with bedtime resistance, difficulty falling asleep, anxiety around sleep and sleeping fewer hours.

Sleep problems and disorders are prevalent at this age. Poor or inadequate sleep can lead to mood swings, behavioral problems such as hyperactivity and cognitive problems that impact on their ability to learn in school.

Sleep Tips for School-aged Children

- Teach school-aged children about healthy sleep habits.
- Continue to emphasize need for regular and consistent sleep schedule and bedtime routine.
- Make child's bedroom conducive to sleep – dark, cool and quiet.
- Keep TV and computers out of the bedroom.
- Avoid caffeine.