Sleep problems in infants and toddlers

Sleep is required for restorative function of our minds and bodies. Adequate daytime functioning will be optimised by quality sleep. Two distinct sleep states, rapid eye movement (REM) and non rapid eye movement (NREM) have been discovered.

Sleep patterns

Foetuses sleep patterns develop in babies before birth. REM sleep appears at 7 months gestation and NREM sleep at 8 months. The large amount of REM sleep early on may be important to the development of the foetus in the newborn. In REM sleep the higher centres of the brain receive stimulation from deeper more primitive areas. The brain into dream imagery incorporates such stimuli. The baby in the uterus makes no breathing motions in NREM sleep. Breathing motions however are practiced in REM sleep. The baby is practising sending out signals to control other motor activity.

Newborn and infant

At birth a full term baby will have 50% of its sleep in the REM state and only 35% of the sleep will be REM by 5 years. Sleep cycle length or the time between two consecutive appearance of the same sleep state increases from about 60 minutes in the full term baby to an adult level of 90 minutes by adolescence. Over a 7 to 8 hour sleep period the child will cycle between Stages 1 to 4 and may repeat three to five times.

Sleep disorders

At least 25% of children suffer significant disturbances of sleep, enough to be bothersome to themselves and to their parents. The parents usually lose sleep and the sleep deprivation can be considerable. Sleep loss can have devastating effects on the family unit.

The sleep problems at issue may have their basis in behavioural interactions, habits and scheduling. A good baby is usually equated with one that sleeps well. By two years of age the child may make a number of requests once in bed. By the age of 5 years may make many efforts to prolong the bedtime ritual. This is a form of protest. It is important that parents allow a certain time for rituals, but decisive action is needed to withdraw attention. When there is poor sleep, parent-child interaction in the daytime suffer and long-term consequences are possible.

Behavioral regimens

The relationship between sleep problems in early childhood and parent-infant interaction style has been repeatedly demonstrated in the literature. Some of the methods and reasons for employing them are presented.
<table>
<thead>
<tr>
<th>AGE</th>
<th>NIGHT-TIME SLEEPING</th>
<th>NIGHT-TIME WAKING</th>
<th>DAY-TIME SLEEPING</th>
<th>24 HOUR TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month</td>
<td>Avg. 9 with range 6-10 hours.</td>
<td>19% sleep through night. 81% wake one or more times.</td>
<td>Avg. of 7.5 hours with range of 3-11 hours.</td>
<td>Avg. 16.5 hours with range of 12-19 hours.</td>
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<tr>
<td>2 months</td>
<td>Avg. 9.5 with range 6-11 hours.</td>
<td>26% sleep through night. 74% wake one or more times.</td>
<td>Avg. 6 hours with range 2-10 hours.</td>
<td>Avg. 15.5 hours with range 11-19 hours.</td>
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<td>3 months</td>
<td>Avg. 10 with range 6-13 hours.</td>
<td>28% sleep through night. 72% wake one or more times.</td>
<td>Avg. 5.5 hours with range 1-10 hours.</td>
<td>Avg. 15.5 hours with range 12-19 hours.</td>
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<td>4 months</td>
<td>Avg. 10 with range 7-13 hours.</td>
<td>23% sleep through night. 77% wake one or more times.</td>
<td>Avg. 4.5 hours with range 1-7 hours.</td>
<td>Avg. 15 hours with range 11-19 hours.</td>
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<td>5 months</td>
<td>Avg. 10 with range 7-12 hours.</td>
<td>25% sleep through night. 75% wake one or more times.</td>
<td>Avg. 4 hours with range 2-10 hours.</td>
<td>Avg. 14.5 hours with range 11-19 hours.</td>
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<td>6 months</td>
<td>Avg. 10.5 hours with range 8-12 hours.</td>
<td>21% sleep through night. 79% wake one or more times.</td>
<td>Avg. 3.5 hours with range 1-6 hours.</td>
<td>Avg. 14 hours with range 11-17 hours.</td>
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<tr>
<td>7 months</td>
<td>Avg. 10.5 hours with range 7-12 hours.</td>
<td>21% sleep through night. 79% wake one or more times.</td>
<td>Avg. 3.5 hours with range 30 minutes - 6 hours.</td>
<td>Avg. 14 hours with range 10-16 hours.</td>
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<tr>
<td>8 months</td>
<td>Avg. 10.5 hours with range 7-13 hours.</td>
<td>24% sleep through night. 76% wake one or more times.</td>
<td>Avg. 3 hours with range 1-6 hours.</td>
<td>Avg. 13.5 hours with range 11-16 hours.</td>
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<tr>
<td>9-12 months</td>
<td>Avg. 11 hours with range 7-13 hours.</td>
<td>20-26% sleep through night. 74-80% wake one or more times.</td>
<td>Avg. 2.5-3 hours with range 30 minutes-6 hours.</td>
<td>Avg. 13.5 hours with range 10-17 hours.</td>
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**Cosleeping**

Cosleeping at an early age has been reported to affect sleep-wake state regulation and organisation. The age of the infant again seems to be related to whether or not cosleeping is associated with sleep problems. In the first 6 months of life, the physiological adaptation of infants may benefit from cosleeping as the best approximation to prenatal mother-infant physiological unity. Newborns who cosleep with their mothers spend more time in quiet sleep and less time in crying and indeterminate sleep compared to those who sleep in a separate room. Cosleeping at an early age increases the number of brief, spontaneous arousals from sleep, which in turn reduce the opportunity for the occurrence of sudden infant death syndrome (SIDS). SIDS is rare or nonexistent in cultures where cosleeping at young ages is common.

On the other hand, a fourfold increase in sleep problems is found in older children who were cosleeping with their parents. Cultural practices may determine whether cosleeping is associated with sleep problems. The important dimension may not be cosleeping per se, but rather the psychosocial meaning of (and cultural sanctions in regard to) cosleeping.

**'Cold turkey approach' and Controlled comforting**

The “cold-turkey” approach instructs parents to ignore the crying and protestations of their children until the children fall asleep in the absence of any intervention. This treatment is based on the behavioural principle of extinction and attempts to eliminate the positive reinforcement of the parent's presence. It may be difficult for some parents to tolerate, and many young children do not return to sleep even after they are significantly exhausted.

A less abrupt variant of rapid, total extinction prescribes graduated withdrawal of parental involvement. A parent may initially stop rocking a child to sleep, but puts the child in his or her bed and remains in close proximity for a while until the child falls asleep. In the next step, the parent leaves the child's bedroom once the child has been put to bed.

A variant of graduated withdrawal incorporates “checking”. The child is put to sleep in his or her own bed. If the child protests or cries, the parent responds after a period of 5 minutes. Then the parent goes into the room to restore the child to a sleeping position. These checks are repeated at 5 minute intervals as long as the child protests. This method again aims to teach the child a routine of falling asleep without any external interactional support. The parental presence should repeatedly reassure the child. The child is also repeatedly exposed to the routine of falling asleep in bed with minimal parental involvement. A modification of checking, suggested by Ferber, recommends a gradual, progressive lengthening of the period between approaches to the child.

**Camp stretcher technique**

This method is used to assist toddlers with severe separation anxiety and phobia to settle and sleep next to the parent's bed. Occasionally, observation of unusual events in the child's sleep is required. It is an interim measure and employed for preparation and graduation into the child's bedroom.
Transitional

At young ages, infants use fingers or pacifiers and other soft objects. Gradually, as they mature, they either continue to use such objects or stop. At the point when an infant selects a “special” object, the sleep aid becomes imbued with the particular properties of an attachment object. That is, the sleep aid provides comfort and security during separation and in the absence of a primary attachment figure. Since sleep is a lengthy period of separation, the transitional object serves to comfort the infant during wake-sleep transitions.

Scheduled waking

A somewhat different approach for treating night waking is that of scheduled awakenings prior to the time of the expected, spontaneous awakening. This approach is aimed at preventing the rewarding association among night waking, crying and parental intervention. The method has been difficult for some parents to follow.

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Sleep problems

Sleep is a common reason for parents to seek professional advice. Often parents have unrealistic expectations of how well their infants should sleep (they all seem to know neighbours or friends whose children never wake at night!). Other parents have children who find it very difficult to settle at bedtime and wake many times during the night.

Helping parents with sleep problems

Reassurance Research shows that by 12 months of age only 58% of babies are sleeping through the night, 49% are waking once or twice a night and another 10% wake 5 or 4 times a night. There is a wide range of what is normal and it often helps if parents know their babies are within the normal range. Children’s sleep patterns change as they develop.

It can be helpful to keep a sleep chart for a few days, where parents write down when their child is asleep. This will give them and you an idea of how much sleep that particular child needs and when he/she sleeps.

Parents need to know that attending to children’s crying in the early months of life is likely to make a child more secure and less likely to cry later on. Some parents are afraid that this will spoil the baby and need reassurance that this is not so.

Remind parents that young children eventually grow out of sleep problems. Reassurance is sometimes all that is needed.

Night waking Reasons that children may be wakeful at night:

- **Discomfort** – hot, cold, thirsty, wet
- **Pain** – teething, ear infections
- **Separation anxiety** – at its height between about 6 months and 2 years, when the baby becomes very attached to, and dependent on the parent and cannot yet hold onto the feeling of security when the parent is not there

- **Anxiety** – children can very quickly pick up parents’ feelings and be unsettled by parental arguments, anxiety or stress

What parents can do

Young babies need parents to comfort them when they are distressed.

- Check how the baby settles best. Some settle best in a dark, quiet place; others need some light and sound around them. A ticking clock or a humming motor sometimes helps.
- Wrapping (swaddling) in a cotton sheet calms some babies.
- A dummy can be helpful after breastfeeding is established.
- Rocking or pushing the pram over a bump can help.
- Baby slings provide comfort and contact if the baby needs to be held.
- Deep baths and gentle massage can be relaxing.
- Babies who want to play at night should be fed in a dark place and resettled as quickly as possible, to help them learn that night is for sleeping.

Wrapping a Baby Parents need to know that sleeping near the baby to be available for comfort will not mean that they will still be doing it when the baby is 21.

Children of many cultures gain comfort from sleeping with parents and separate successfully when they are ready.

Note: It may be best for parents not to sleep in the same bed with young babies because of a possible risk of suffocation. More research is needed but in the meantime the cot can be put next to the parents’ bed.

Going to bed Relaxing routines at bedtime help children to settle and to be ready for sleep. For example - bath,
story, saying goodnight to everyone (including pets) and a special goodnight hug.

**Suggestions for bedtime problems.**

- Have a regular bedtime that gets later as the child grows. (Some parents want their children to go to bed early and wake up late – children who go to bed early are likely to wake early).
- Leave the door open, light on, soft music or anything that helps relax the child.
- If a young child is especially attached to one parent it sometimes helps if she has a special time with that parent before bed, then the other parent puts her to bed.
- Some children find it hard to settle by themselves. If parents decide to stay with them, it is important not to sneak out before the child is asleep, because this makes the child more anxious and watchful.

**Ongoing or severe sleep problems**

A thorough assessment of the family situation is needed to try to deal with any problems affecting the child’s sleep.

These methods are for children in the latter part of the first year or older.

**Medication** Medication can help desperate parents to get a few nights sleep but does not solve the sleep problem.

**Coming and Going**

The parent sits with the child for a while and then says he needs to go out and do something and will come back very soon. The parent does come back very soon. The parent repeats this, staying away a little longer each time but always coming back as promised. When the child is old enough to understand, this builds trust and eventually the child can relax and sleep because he trusts that the parent will be coming back.

**Gradual adjustment** The parent sits on a chair near the child – maybe with a book to read. Over several nights the parent gradually moves the chair towards the door. Eventually the parent moves the chair outside the door.

**Controlled crying/comforting** The parent puts the child to bed, says that it is sleep time and leaves. If the child cries the parent comes back after a few minutes, settles the child quickly and then leaves. The parent gradually increases the intervals between coming back until the child eventually falls asleep. (Controlled crying is not appropriate for babies and young children who are anxious or fearful, or who have separation problems).

**Special note:**

When parents are tired from lack of sleep they are at their lowest ebb. Always talk with parents about how they are coping, and offer suggestions for support if necessary.

More information about sleep, including sleep terrors, nightmares and safe sleep can be found on the Child and Youth Health website [HYPERLINK http://www.cyh.com.](http://www.cyh.com)

Information can be printed off and given to clients.

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