

**General knowledge about sleep
0 – 1 year**
Generel viden om søvn 0 – 1 år



Engelsk

How should we create the best sleeping conditions for our small children?

Knowledge about sleep is the first step toward good sleep.

There is a great deal of research about sleep and its importance for biological processes, quality of life, and the ability to function during the waking hours, and more research is being added. The following is a general guideline to the most important knowledge, which is considered well founded at the present time.

Concentration, memory, and learning ability

Sleep has a large effect on the ability to concentrate, and on memory, and therefore also on learning.

Lack of sleep

Lack of sleep can cause behavioral problems such as physical unrest, hyperactivity, increased irritability, aggression and increased stress response.

Growth

Sleep has a growth promoting and regenerating function in the body, partly due to an increased production of growth hormone.

Overweight

Longer periods with insufficient sleep are connected with an increased tendency to overweight, partly due to an unfortunate change in the regulation of appetite.

The immune system

The immune system is also affected by sleep, among other things through stress hormones. Chronic lack of sleep can thereby weaken the immune defense.

Allow children to sleep

Sleep is important for the brain's structure and restructuring, and is essential to life already from the fetal stage. Babies and small children cannot sleep too much. The brain needs rest, and dreams are healthy, since dreaming stimulates brain cells and keeps them alive.

From the 23rd week of pregnancy the child dreams almost around the clock.

Dream stimulation continues after birth, decreases slowly, but plays a crucial role for the brain and the psyche all our lives. Small children benefit from sleeping as much as they wish. Very small children receive many sensory inputs and experiences during their waking hours, which should be "filed away properly" in the brain at night. That is why children need a lot of sleep.

Phases of sleep

When we sleep, we experience four phases of sleep. Deep sleep in particular is important, so we can function the next day. Deep sleep takes place during the first part of the night. We start with the phase where we fall asleep. Then come phases 2, 3, and 4, which continue in a pattern (a sleep cycle) throughout the whole sleep period.

1. **Somnolence:** We are drowsy for 5-15 minutes. The thoughts become unclear, and we recall sight images.
2. **Light sleep:** We have no thoughts, but can be woken easily. This phase lasts about 30-40 minutes.
3. **Deep sleep:** The phase where we are deeply asleep and are difficult to wake. A growth hormone is secreted, so children need more periods with deep sleep than adults have. This phase lasts 30-40 minutes.
4. **Dreaming sleep/REM-sleep:** All muscle activity ceases and the body becomes limp. The phase is called REM-sleep, which means "rapid eye movement", because you can see the eyes moving rapidly underneath the eyelids. This is the phase, during which we dream. This phase takes about 20-30% of our sleeping period and starts about 80 minutes into the sleep cycle.

The need for sleep is different from one person to another, and also depends on e.g. the child's age. The younger a child is, the more sleep his brain and body need.

The most important thing is that you consider your child's needs and observe your child's tiredness signals.

Good sleep habits are established by consistency and good routines at bedtime. The recommendations for children's sleep needs are based on the guideline **Sunde Børn (Healthy Children)** from the Health Authority.

0 -1 years:

The newborn child has a different sleep cycle: ½ hour of superficial sleep and ½ hour of deep REM sleep. You can wait until the baby is deeply asleep – wait ½ hour until the child is limp in your arms, where only the eyes are moving under the eyelids, before you put the baby down. Make sure you have a blanket around the baby, so he does not wake when placed in a cooler pram insert or cradle. All the sleep phases have established themselves in the sleep cycle by about 8 months of age.

One wakes briefly between the different phases. If the baby wakes or fusses, lay a hand on the child or rock him and try to help him fall asleep again. As long as rocking helps, use it - but when you feel that it is getting to be too much, you can cut back. You are the ones who decide.

During the first months, you should be prepared that it takes time and calm to get to know your child's reactions. Try to follow the child's rhythm, and accept that your needs will take second place.

Tips

Ensure:

- That the child has a calm and safe sleeping place with minimal noise, dust, light and no smoke
- Family sounds are a form of security, so you don't need to be extra quiet or tiptoe
- That the room is be about 18 C, with a good mattress, which is appropriate for the child's weight, so the body is supported properly, a good duvet, and a stuffed animal or comfort blanket – these are cosy and secure
- That the sleeping room is made ready for the night by airing out and dimming the light – you can use blackout curtains, and quiet around the child, for example by shutting off the television, radio and other noises some time before bedtime

- Regular bedtimes and bedtime routines (you can start establishing these from the age of 4-6 months)
- The child is put to bed when tired, full, calm and secure
- It is important to be calm and patient when putting your child to bed – this helps your child become calm

Make sure that bedtime is cozy for your child. This is something that has to be done every day.

Bedtime routines

Bedtime routines should help your child relax. This could be something you know calms your child, e.g. a bath and a goodnight song. Bedtime routines should not take too long. It helps if the routine is the same each night, since children love habits. Knowing what will happen helps them feel secure. This is why it's a good idea to verbally guide your child through the activities you do together, such as: "Now we'll change your diaper, and now we put on pajamas," etc.

Slightly older babies, approx. 8 months:

Look at the child and try to observe signs of tiredness. Children who have difficulty falling asleep at night are usually overtired. Children can also have difficulty falling asleep if their bedtime is too early – before they've shown signs of tiredness.

When the child first shows signs of tiredness, you have about 10-15 minutes to put the child to bed. At this point, it is too late for bedtime routines, if you haven't already done them. The child will likely slip into sleep quickly. If the child does not, and is overtired, wait to put the child to bed until he or she has calmed down again. Try to put the child to bed earlier the next day.

Signs of tiredness

Use time learning your child's tiredness signals. Signs of tiredness can be yawning, looking away, turning the head away, rubbing eyes or nose.

Listen to your child. Listen to the crying. After a while, you will be able to hear, which cry your child is making (e.g. a tired whine).

Falling asleep on his own

It's a good idea to let your child fall asleep on his own, when he is about 2-3 months old. You can do this by saying goodnight when the

child is drowsy, but not yet asleep. In this way, your child learns to fall asleep again by himself, also when he wakes at night. It is easier for your child to fall asleep in the evening, when he has had his need for closeness met during the day. It is a little more difficult for your child to fall asleep when he is a few months old, and he may need your help. The child will sleep best in a cradle or a pram insert, which is not too large, or together with you.

Be realistic and make sure your expectations of quiet nights aren't too large. Expect that your child will not sleep all night. If you need extra sleep, try to sleep during the day when your child is sleeping. Your child has the ability to calm himself; this makes falling asleep easier. The child uses his voice to make small noises to block out stimuli, uses a pacifier, or fidgets with the duvet once he is a little older.

When you comfort your child at night, it's a good idea to stay in the bedroom, so your child is aware that it is still nighttime. If you turn the lights on at night, it is a good idea to use a dimmed light, with a reddish glow if possible, since this will stimulate your child the least. After the age of 6 months, some children will eat enough during the day and no longer need a nighttime meal. Offer your child water at night. The child can now learn to separate sleep and food, for example by avoiding nursing him to sleep. Let your child eat until he is finished, and place him in his bed before he is completely asleep.

Crying and sleep

It can be difficult to hear the nuances in your child's cry. Crying can be the small child's way of making a statement – "I am sleepy – but I can't figure out how to fall asleep." An older child's cries are often a form of protest, and many children protest strongly just before they fall asleep.

Is the child's crying a form of protest – or is the child unhappy? Show your understanding with words "Yes, my dear. You don't want to sleep now. You need to sleep and it is nighttime."

If the child is unhappy, you should pick him up and comfort him briefly, and then put him to bed again.

The need for sleep

Children are different. The hours below are what children sleep on average during the age 0-12 months.

1-4 weeks: 15-18 hours a day.

1-12 months: 14-15 hours a day.

The child's circadian rhythm

1-4 weeks: The child does not have a circadian rhythm at birth. A newborn sleeps for shorter periods of 2-4 hours. If you minimize stimulating your child, by turning on the lights as little as possible, refraining from talking to your child, and only changing the diapers if there is stool, your child will gradually learn that there is a difference between day and night.

1-4 months: At about 6 weeks, most children show that they know the difference between day and night. The child begins to sleep 4-6 hours at a time at night, and is more awake during the day. It's a good idea to show that there is a difference between sleeping during the day and sleeping at night, e.g. the child sleeps outside in the baby carriage during the day and in his bed in a dark room at night.

4-12 months: The circadian rhythm becomes more stable, especially if you have begun to establish repetitive sleep habits. You can do this by establishing a bedtime routine, which is the same each evening, e.g. a bath and a song. The child begins to sleep about 5 consecutive hours at night, which is what "sleeping through the night" is for a child of this age. During the day the child will usually take 3 naps, and when the child approaches 1 year, he may be able to take just 1-2 naps.

The child's need for sleep during the day is controlled by a natural urge, and the child should therefore be allowed to sleep as long as he needs to. If the natural sleep during the day is interrupted, it may affect his nighttime sleep negatively. Most children sleep best outside during the day. When the child sleeps outside, keep your eye on the temperature. The minimum temperature is minus 10 degrees Celsius – remember the chill factor – put the baby carriage in the shade if the sun is hot – and the child should sleep inside if it is very foggy, due to the intense humidity.

Alternatively, your child can sleep inside with open windows, dressed according to the season.

Sources:

Sundhedsstyrelsen: Sunde børn – om barnets første 3 år (The Danish Health Authority: Healthy Children – About the child's first 3 years)

Elizabeth Pantley: The No-Cry Sleep Solution

Vibeke Manniche: Børns søvn – din lille sovetryne (Childrens' sleep – your little sleepyhead)

If you have questions about children and sleep, we recommend that you contact the Health Visitor Service in Furesø Municipality, at telephone: 7259 6720.

A health visitor looks forward to answering your questions or advising you.

See the Health Visitor Service's website:

www.sundhedstjenesten-egedal.dk