



**“A healthy sleeping baby is key to a flourishing family. Our sleep strategy combines medical research with practical routines which assist parents achieve optimum sleep, feeding, growth and happiness in babies and children.**

**Background series**

# sleep patterns: babies and toddlers

A block of sleep contains multiple sleep cycles. These occur even in the womb. For babies one sleep cycle is approximately 45 minutes and in toddlers these can lengthen to about 60 minutes.

Please note that the following is a very simplified summary of complex physiology. Despite this simplicity, the recommendations which the analysis leads to, work well for the vast majority of families.

**“Minimise cues of sleep achievement that are parent-dependent ... aim for a ‘parent-lite’ approach instead.”**

Light sleep	REM (Rapid Eye Movement Sleep)	Deep sleep (Non REM Sleep)
<b>What is it?</b>		
<p>This is a transition phase between wakefulness and sleep and during this time we can be easily woken.</p>	<p>During REM sleep the brain is highly active.</p> <p>In babies this is a time of active body movement as well as sleep. It is likely that this will be the time that you see your baby smile for the first time.</p> <p>REM sleep is important in many ways but one function appears to be the transfer of short term to long term memory</p>	<p>During non REM sleep the baby is at their most still.</p> <p>Breathing is often regular. They are amazingly pleasant to watch. Babies are easy to love when asleep.</p> <p>Non REM sleep has some major functions. For example growth hormone is only secreted in one component of non REM sleep.</p> <p>In many ways non REM sleep is felt to have a range of restorative functions.</p>

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## sleep patterns: babies and toddlers

Going to sleep is a learnt behaviour and encouraging your baby to learn to fall asleep independently is one of the most helpful things you can do. It is also the first true skill that you teach your baby. Becoming overtired will decrease the baby's ability to achieve and maintain sleep efficiently. The graph represents sleep for a child (simplified).

**Sleep is cyclical.** During a block of sleep, it is normal and healthy to awaken and resettle multiple times. For a newborn baby these cycles are about 45 minutes long. The waking events will last generally 30-90 seconds. The majority should be silent and you will be unaware that they occur. In very overtired babies they may waken at the 45 minute mark and have trouble getting back to sleep. Thus if your baby is calling for assistance every 45 minutes it may be a sign of fatigue.

**Cues of sleep.** It is useful to think of the sleep achievement event as being driven by a combination of tiredness and external cues of sleep ie. the things which are going on around the baby at the time. When a baby or child is first put to bed, tiredness dominates. Cues of sleep achievement are outweighed by tiredness and they are more likely to achieve sleep efficiently. As sleep progresses tiredness reduces and the cues of sleep become more important in the return to sleep event.

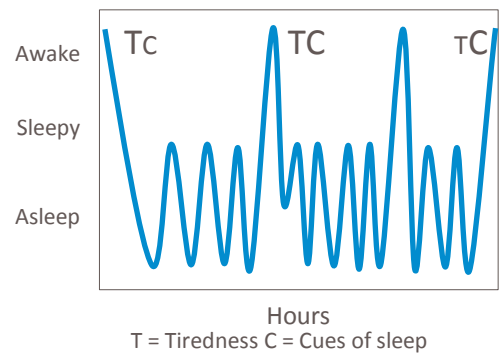
Some children may seek increased parental support after 3-4 am.

**Cues of sleep are learned.** Can be changed and then relearned.

**Sleep achievement and sleep maintenance are usefully regarded as learned skills.**

**Fatigue interferes with the learned skill of sleep achievement.** Therefore it is important to ensure the child does not become over tired. A newborn can become overtired in 10-15 minutes.

**Cues of sleep achievement that are parent independent are the most useful for family life.** A baby who achieves sleep with your care is preordained to request that care again at some point in the block of sleep. Minimise sleep transitions which involve parental assistance and allow a child to achieve sleep alone. Adopt a 'Parent-lite' approach to sleep achievement. Be there and be supportive but keep it minimal rather than the reverse. The baby needs to feel your love and support but when it is time to be asleep leave them alone to finalise the last steps in sleep achievement. As a parent you have a major and positive roll to play when the baby is awake and maybe even when sleepy but once the baby is ready to be finally asleep these events are best managed by the baby alone. This is true from the time of birth.



### Key Points

- Sleep is cyclical with multiple episodes of arousal followed by a return to sleep
- Sleep achievement is in part cue dependent
- Cues of sleep are learned can be altered and then relearned
- Sleep achievement and sleep maintenance are usefully regarded as learned skills
- Avoid children becoming over tired as this interferes with the learned skill of sleep
- Minimise cues of sleep achievement that are parent dependent (be 'Parent lite').

Dr Brian Symon is The Babysleep Doctor. He has more than 30 years' experience working with parents and babies experiencing sleep, feeding, growth and/or behavioural issues. He is a specialist medical practitioner with a MD (PhD) in infant sleep. Dr Symon is well published in national and international medical and research journals having researched infant sleep problems throughout his medical career. He is the author of *Silent Nights, Overcoming Sleep Problems in Babies and Children* and has another book due for release in early 2015.

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... helping babies to sleep  
and families to flourish