



**Let's talk about
your new
family's
sleep**

Lyndsey Hookway



Book extract: Night feeds and the breastfed baby

In this extract from her new book, *Let's talk about your new family's sleep*, Lyndsey Hookway unpicks fact and fiction when it comes to night feeds and baby sleep.

I wonder how many times you have heard or read about night feeding in the context of sleep? Have you been asked whether your child is 'still' feeding in the night? Have you searched for answers about this on the internet? Have you heard of feeding to sleep being labelled a sleep association/crutch? How does that make you feel?

The truth is, babies and children wake up in the night for multiple different reasons (just like you and me) – but feeding is a big one, so we tend to hang all our hopes on them stopping night feeding in order to sleep for longer stretches. But is this realistic? If they stop waking to feed will they stop waking full stop? Or does this just eliminate one of many reasons why children wake up? How do we separate feeding for hunger and feeding for comfort and as a tool to aid sleep? At what point is it reasonable to put some limits on night feeds? So many questions and, I'll be honest with you – a lot of conflicting and confusing information.

Modifying practices such as feeding to sleep, and night feeds, usually comes up as a strategy to attempt to improve sleep. Many sleep research articles and textbooks suggest that infants do not need night feeds after six months. But who says they are not necessary? At what point does feeding to sleep become perceived as problematic? And is this a holistic way to think about infant care?

Let's explore these tricky issues in more depth. The premise is that if

a night feed is not necessary after six months, then continuing them:

- a) is unnecessary
- b) is therefore about comfort, or habit
- c) may self-perpetuate night waking
- d) could theoretically reduce daytime appetite

Firstly, are night feeds necessary after six months?

Several papers and well-known paediatric sleep textbooks suggest that night feeds are unnecessary after six months. However, they do not explain why they are unnecessary beyond the idea of feeding becoming a 'sleep association'. They do not provide any clinical justification for night feeds being unnecessary at this age, or explain what is different between five months and six months that marks this change. Finally, none of these papers or textbooks are written by infant feeding experts. They are coming at this problem from a behavioural sleep perspective, and so perhaps are not the best people to be discussing normal trajectories of infant feeding and nighttime behaviours. Textbooks discussing night feeds after six months assume that this is a problematic behaviour. But what if it is just normal?

I cannot find any consistent rationale for the idea that night feeds are unnecessary after six months. Some studies have noticed a drop-

off in night feeding after six months, although this is not consistent, and other studies find that night waking increases after six months. It could also be related to infants eating solid food by this point. But starting solids has not been shown in large, well-designed studies to improve night time sleep, or to reduce the need to feed at night. The other explanation for the potential lack of necessity of night feeds may be related to infants being able to last longer between feeds. But what is the big physiological difference between a five-month-old baby and a six-month-old baby? This may not be a generalisable statement across all babies, and may also fail to account for differences in appetite, metabolism and individual caloric need.

Some very large studies exploring night-feeding behaviours in infants disagree with the idea that night feeds are unnecessary after six months. In fact, one study looked at night-waking patterns of over 55,000 babies aged 6-18 months and found that 70 percent of them woke on average 1-3 times, mostly needing a night feed. Other smaller studies find that there are two distinct groups of sleeping pattern, and that while most babies sleep through the night at six months, babies with a 'higher need' temperament were more likely to wake at night and need feeding.

Another aspect worth considering is that if night feeds are stopped, is this likely to have an adverse impact on breastfeeding duration and milk supply? One study found that discouraging parents from night feeds was associated with a marked drop in breastfeeding rates, despite the researchers reporting that breastfeeding was actively encouraged. Did this happen because parents were planning to stop breastfeeding anyway? Or was it because it became increasingly difficult to maintain breastfeeding or a breast milk supply without continuation of night feeds?

The bottom line is that an infant's ability to go without a night feed is probably developmentally related, as studies have found that infants who spontaneously sleep for longer stretches at night without a feed (i.e. no sleep training or delaying feeds) from a very early age tend to show sleep stability at later ages as well.

Secondly, are night feeds after six months more about comfort than hunger? (And is this a bad thing?)

This may seem like a moot point, but feeding in the night is not just about hunger. Some people seem to think that feeding that is unrelated to hunger is less of a valid reason to wake, and therefore worthy of elimination. I hear a lot about people suggesting that waking to feed for comfort, rather than 'true hunger', is not a valid need.

I wonder if this is rooted in our cultural tendency to perceive adult comfort-eating as linked with obesity and over-indulgence? Eating is a pleasurable activity – even for adults. I don't know about you, but one of my favourite things to do (though it doesn't happen very often) is to go out for a very long and decadent meal with my husband, family or friends. Eating is a social event – involving talking, laughter, and sensory stimulation. When we eat we appreciate and take pleasure in the way the food looks, smells, feels and tastes. We enjoy the surroundings and we have a chance to sit down and stop for a moment.

Of course, we eat when we are hungry, but we do not overlook or consider as unnecessary the other positive aspects of eating. There are times when I am very busy and dealing with being hungry could almost be thought of as a 'task' – I eat on the run, I choose foods

that are quick and will take away my hunger promptly, so I can get back to what I was doing before. Hunger and eating are therefore sometimes an inconvenience. But I would not say that this is the norm.

Many parents who contact me are able to discern some differences between feeds that seem to be primarily hunger-driven, and feeds that seem to be for comfort. Anecdotally, the comfort feeds are often very short, with some parents reporting that their child suckles at the breast for only a few seconds before falling asleep again. Or they offer a bottle and the child drinks only a minimal amount. These behaviours are sometimes felt to be associated with poor nighttime sleep consolidation.

I also believe, both from some research into this area, and also from listening to hundreds of parents

talking about this, that sometimes a baby is fed back to sleep in the night because it works. What I mean is that the feed was initiated by the parent, rather than cued-for or verbally requested by the child.

Many parents describe feeding back to sleep as their 'superpower', or 'trump card'. It is reliable, easy, quick and gets everyone the most amount of sleep. This is perhaps why breastfed babies are fed to sleep more, and fed in the night more, than bottle-fed babies.

Literature studies do not show that bottle-fed babies wake less in the night, but they do demonstrate that breastfed babies are fed more in the night. I suspect the 'trump card factor' is at work in this phenomenon. Is this perhaps a parent-driven convenience feed, rather than an infant-driven comfort feed?

Night feeds and fertility

I come across a substantial number of parents who want to stop night feeds to try to get their fertility to return so that they can have another child. Every woman has a different level of sensitivity to hormones. For some people, their period returns while they are fully breastfeeding – day and night. For others, it comes back when their little one is no longer exclusively breastfeeding: either their little one is having some formula or solids. Still others find that breastfeeding has to reduce quite substantially – often overnight – for the return of their period, and for another group of women fertility does not return until they completely stop breastfeeding. The lactational amenorrhea method is known to be a fairly good method of contraception, but there is significant variability between individuals.

An example: Grace called for sleep support when her daughter Tori was 10 months old. Grace had no issue with Tori's night waking habits. Tori woke about 3-4 times in the night and Grace was happy to bed-share and feed her back to sleep. However, Grace was 42 years old, and it had taken over three years to conceive Tori. Since her period had not yet returned, she wanted to explore the possibility of reducing or even eliminating night feeds in order for her fertility to return. She was mindful of her age, and did not want to risk waiting too long.

Bear in mind that if your primary reason for wanting to stop night feeds is the return of your fertility, this is by no means an exact science. If your fertility has already returned, you do not need to stop breastfeeding or night feeding for the sake of your unborn baby (unless you want to). The other thing to bear in mind is that you may feel quite conflicted or even have feelings of guilt attached to this decision – it's an emotive process. Please get support with this from a breastfeeding counsellor or IBCLC who has experience dealing with this compassionately. One final word of warning: your fertility may have returned by stealth. A lot of women find that their period does not come back because they are already pregnant – rule that out before you embark on night weaning!

I don't have a ton of evidence I can share with you about these real-world problems. My take is a pragmatic one. I tend to suggest that if comfort feeding is beginning to get to you, then we can address it. If it isn't bothering you – leave it alone for now. (I share ideas for reducing night feeds in the book.)

Thirdly, does night feeding (for any reason) actively promote night waking?

This is probably the hardest question to answer in a meaningful way. The reason it is so difficult is that there are so many factors to consider. The premise is that either night feeding becomes a reward that is worth waking up for, or that it somehow triggers night waking through a cascade of hormonal processes associated with appetite and satiety (the feeling of fullness and contentment after eating). Let's explore this, since it is a prevalent idea.

First of all, can feeding be thought of as a reward for an undesirable behaviour such as waking up? Well, the first thing that probably occurs to you is that waking up is normal, rather than a habit that needs to be 'broken'. But this is a grey area. Speak to any parent who is feeding their older baby back to sleep every single hour and they will almost certainly report that their child will not settle in any other way than through feeding (whether breast or bottle). It seems that while waking up in the night is normal, and night feeding is normal, the maturation of these processes towards independence progresses at different rates. Certainly, we can all develop habits that we begin to expect, or associate with certain sequences. It is not unreasonable to believe that feeding could become something that children expect to receive in order to fall

asleep again. But does it therefore follow that stopping the night feeds will reduce night waking? Or will the night waking continue regardless, and you'll just have to find another way of comforting your child?

I talk to a lot of people about the need to separate responsive parenting from feeding.

Feeding is just one tool with which to be responsive. You do not have to feed a child every single time they wake in order to be responsive. But you do need to do something. Are there other ways to be responsive that do not involve feeding, which may open up the way for other people to be involved with sleep? Probably. This is where we need to look at the whole picture of night waking in context with the age and developmental stage of your child. Given that 70 percent of children aged 6-18 months are waking for at least one night feed, it seems reasonable to use this as a baseline. If your eight-month-old baby is waking up 2-3 times in the night, then this is almost certainly reasonable. If your 10-month-old baby is waking every hour all night, then it is not unreasonable to reduce this a little if it is becoming unsustainable for you.

So how does the age of your child affect the way we think about feeding to sleep? Most people don't have an issue with very young babies falling asleep feeding and feeding back to sleep in the night. It seems to be babies over the age of about 3-6 months that get people twitching. Feeding to sleep actually promotes sleep! During feeding, a baby will become calm and settled, and they have a number of complex hormones which trigger feelings of fullness, satiety, and sleep.

But what are the hormones that trigger sleep, and how do they work? This is complex stuff, but there are three hormones that are well known for their influence on appetite and sleep induction:

- **Cholecystokinin:** decreases appetite and induces deep sleep



“Feeding to sleep is easy, quick and reliable, and keeping a baby awake during and after feeding is difficult and unreliable – so the whole process can increase stress, reduce parental confidence and cause an infant’s feed-sleep-wake cycle to become disrupted”

- **Leptin:** released during/after feeding or eating and decreases appetite, and increases satiety

- **Brain-derived neurotrophic factor:** reduces appetite and induces sleep

So these hormones are released in response to feeding/eating and trigger a sensation of calmness and sleepiness.

Other hormones are involved with triggering appetite and wakefulness:

- **Ghrelin:** released by the stomach in response to emptiness – as the stomach fills, appetite falls.

- **Orexin:** promotes wakefulness and increases appetite

These hormones are triggered by stomach emptiness or low blood sugar. The slightly complex part is that it seems that just the act of being awake can also trigger appetite – so this can become a ‘chicken and egg’ situation. Essentially, it is possible that some babies are hungry because they are awake, rather than being awake because they are hungry. You may need to read that sentence twice! It actually makes total sense that if your body recognises that you are awake, you may need more calories, since the metabolic rate is increased during

wakefulness. In other words, during wakefulness, appetite increase is an adaptation to provide the calories required to sustain alertness. There is a well documented association between short sleep duration and increased appetite – caused by our two major appetite hormones – ghrelin (which increases) and leptin (which decreases). The overall effect is to make you hungrier and less satisfied. However, the studies that have explored these links are done with adults, so again we simply don't know if they can be applied to children and infants. Fundamentally, the hormonal control of appetite is closely balanced between the need to remain alert to eat, and the need to protect sleep through suppression of appetite.

At what point this tightly maintained balance gets triggered is hard to say, as the studies that examine these hormones have not explored their effects in infants. Therefore, any suggestion about the relevance of this in infancy is speculative. I tend, therefore, to be guided by what is manageable and sustainable for families in the light of their child's age.

One recent sleep intervention programme actively encourages feeding to sleep, because of these well-known biological sleep drivers. They argue that if an infant becomes sleepy during a feed, and then is abruptly woken to avoid them falling asleep feeding, they may associate feeling sleepy with sudden wakefulness. They also point out that feeding to sleep is easy, quick and reliable, and keeping a baby awake during and after feeding is difficult and unreliable – so the whole process can increase stress, reduce parental confidence and cause an infant's feed-sleep-wake cycle to become disrupted. It is refreshing to hear an alternative approach to sleep that does not make parents feel like they are 'getting it all wrong'. Whether this applies to all babies, or just certain ages or temperaments, remains to be seen,

but it is certainly worth thinking about if you notice that your baby always seems really sleepy after feeding, and then startles and gets upset when you try to put them down to sleep 'drowsy but awake'. If this happens, you may want to abandon the strategy for a while and relax a little about sleepy feeds.

On a practical level, with very young babies it is almost impossible to stop them falling asleep feeding. Part of the reason for this is that they are unable to sustain long bouts of wakefulness. If you think about it, by the time you have realised your baby is cueing to be fed, and you have changed them, then either breast or bottle-fed them, burped them and dealt with any nappy explosions, it may well be time to sleep again. For some babies, the short amount of awake time they can tolerate between feeds means that they are almost guaranteed to fall asleep feeding. This will persist until their tolerable awake window lengthens enough for them to be able to sustain some awake time after a feed.

The astute among you may be wondering about the effects of appetite on circadian rhythm. Again, there is almost no research in this area, and the research that does exist tends to relate to adults, and sleep pathology, rather than normal infants. For example, adults with night eating syndrome have a delay in their circadian appetite control despite normal sleep-wake rhythm. But this is a sleep pathology, whereas infants who feed at night are normal. How relevant is this to babies? Another example is jet lag and the impacts on appetite and sleep. We know that it can take a few days for your body to adjust to a different time zone. Is it possible that babies or children can adjust their circadian-linked appetite timings by habitually eating or feeding at certain times? Again, this is a hugely complex and grey area, because night feeds are biologically normal and necessary in

a young infant. At what point might their circadian rhythm be a factor in appetite regulation? It is certainly true that there is an inter-relationship between circadian rhythm, appetite and metabolism. Another study found that circadian rhythm is affected by food timing. This study found that the body clock is affected by significantly different meal times. It effectively shifts the circadian rhythm. But the meal times were shifted by five hours. What about smaller variations?

Finally, does night feeding affect daytime appetite?

On the face of it, this sounds like a sensible mechanism – if you stuff yourself at night, you'll eat less in the day. It is certainly possible to shift your circadian rhythm timings through appetite modification and timing of food intake.

However, this would usually require other environmental cues, such as light and social activity, as well.

In fact, the research studies we have on sleep deprivation and appetite would suggest the opposite – that if you're sleep deprived, you will tend to eat more. Another study found that less sleep is associated with higher food intake in 8-11 year olds. It is hard to find scientific papers that corroborate the notion that feeding in the night disrupts eating in the day. There is a wealth of literature demonstrating the opposite – but these studies tend to be in school age children, and are addressing the issue from a childhood obesity point of view.

Anecdotally, many people report that if their child feeds frequently at night they tend not to want breakfast. Yet it is also a common observance that children are often grazers in the day anyway. They may just not be a big fan of breakfast!

So, once again, this could be chicken and egg – is the child feeding all night because they have a 'grazing'

pattern of eating which is mirrored in the daytime? Or are they feeding all night because they don't eat well in the day? Or is it a vicious circle of feeding all night, reducing daytime appetite? Is night feeding a safety net – providing important calories and nutrition to a child with low appetite? Does it depend on whether the night feeds are substantial or momentary?

I would suggest that you look at your child's eating patterns in general. Do they eat well in the day apart from breakfast? Do they actually graze all day irrespective of feeding?

For example:

Maya has been told that her one-year-old daughter Josie does not eat solids well because she is up all night feeding. Maya tried to limit feeds in the night in the hope that Josie would eat well the next day. Josie was still thoroughly uninterested in breakfast, and her appetite for the rest of the day remained unchanged. Maya concluded that night feeding was having no impact on Josie's daytime eating patterns, and considering that her weight was normal, and Josie was healthy and thriving, decided to just let the night feeds run their course.

On the other hand:

Brian and Claire were convinced that their 11-month-old son was stuck in a rut of having large feeds in the night, and essentially 'sleeping through' the day. Noah would wake up at least every 2-3 hours and have a really substantial feed. Claire described breast fullness and Noah guzzling milk from both breasts, then seeming content to go for long periods in the daytime without anything at all. Claire noted that the behaviour started when Noah began to be more interested in his surroundings at about four months, and he would regularly last for 8-9 hours in the daytime without any breastfeeds, then compensate at night. Claire decided to gently hold her son and not feed him after

3am one day as an experiment, to see if he would then eat breakfast and breastfeed in the morning. She noticed that Noah was much more interested in breakfast the next morning.

I cannot tell you which way this is likely to play out in your situation. I truly think that for some children, grazing all day and night is their feeding pattern, whereas for others, like Noah, it may be that your little one has 'reverse cycled' their feeding pattern. You may need to experiment, keep an open mind, and be prepared to be flexible.

Night feeds and milk supply

Let's think a little more about the association between night feeding and milk supply. A milk supply that is still becoming established may suffer from long breaks between feeds. Long gaps are usually not a great idea for young babies, for safety, weight, and their energy and caloric needs, as well as maternal milk supply. But will a milk supply and baby be compromised by having limits placed on night feeds at eight months, or 10 months? It is almost certainly not necessary to feed every 1-2 hours with an older baby in terms of their nutritional requirements or to maintain milk production. But where is the line? What other factors do we need to consider? Does age matter – and if so, at what age can limits be placed on night feeds safely?

At six months, milk supply is generally well-established, so in theory allowing longer breaks between feeds is unlikely to impact milk production overall. However, it does depend on individual factors, including a mother's comfort level when her breasts become fuller, and storage capacity. Essentially, one mother's breast may be able to hold a maximum of 50ml of milk, while another breast may be able to store 250ml. The storage capacity will greatly influence the frequency of feeding of an infant. If a mother

has a small milk storage capacity, her milk supply and her infant's weight may only be maintained by frequent feeds. On the other hand, there may be more room for manoeuvre if the mother has a larger storage capacity – assuming of course that her infant is able to drink a larger volume in one feeding session. Variables like these may not necessarily be known (or even cared about) in advance by a mother who was feeding responsively, but may become apparent and problematic if night feeds are spaced out or eliminated.

I suggest an individualised approach to decision-making about night feed spacing. If your baby is thriving, experiment with a small increase in feeding interval to see what impact this has on your comfort level and milk supply. If there is no obvious negative impact, you may want to increase the interval further. On the other hand, if you become uncomfortably full or your milk supply dips, then you may want to get some support from a breastfeeding counsellor or IBCLC.

• *Let's talk about your new family's sleep* by Lyndsey Hookway is published by Pinter & Martin, £15

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