Normal, Human Infant Sleep: Feeding Method and Development

"My child wakes every hour to feed"

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Infant sleep problems represent some of the most common concerns reported by parents of young children. Ask any new parent and most will complain about lack of sleep. Many will also be worried that what they are experiencing isn’t “normal” and believe that their child has a problem that needs fixing. So they search books, ask friends and family or even their doctors about what to do about a child’s problematic sleep patterns. And to top it off, they feel immense anxiety and worry about them.

Part of the epidemic of parental angst about children’s sleep is that we live in a culture in which parents are repeatedly told that they need to worry about their child’s sleep, that there will be dire consequences if their child doesn’t get enough sleep. Another problem is that most new parents, having had little experience with children prior to having their own, have little awareness about what truly is “normal” when it comes to infant sleep.

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Simply being made aware of normal sleep patterns can help alleviate the stress and anxiety parents feel, leading to happier times for the entire family.

So what is normal?

In this series of posts, we’ll tackle some of the more common sleep concerns parents have with the hope that they can see them as normal, developmental stages for their child.

"My child wakes every hour, all day and night, to feed"

Whether it’s every hour, or every two hours, or even three, parents are often concerned when their young infant is waking regularly for feedings. This concern is not surprising given the focus on “sleeping through the night” that our culture pushes. But sleeping through the night is not biologically normal, especially for a breastfeeding baby.

At the time of birth, a baby’s stomach can only hold a teaspoon’s worth of milk, meaning that he or she will need to feed frequently to meet the many demands for energy that accompany this period of growth. Although the stomach grows relatively quickly, the fat and protein content in human breastmilk is much lower than in the milk of other mammals and

thus infants are required to feed often, resulting in greater night wakings (Ball, 2003; Ball, 2009).

Human breastmilk, being designed for infants who need to feed on cue day and night, is easily and quickly digested. Formula, however, is typically made from the breastmilk of another species – cows – and is higher in fat while also containing myriad additives which make it more difficult, and thus slower, to digest. This can affect infant sleep, resulting in unnaturally deeper infant sleep (more time spent in stage 3-4) (Butte, Jensen, Moon, Glaze, & Frost Jr., 1992), a stage of sleep from which it is most difficult to arouse to terminate breathing pauses (especially for arousal deficient infants), thereby potentially diminishing the infant’s capacity to maintain sufficient oxygen. Even so, formula use does not necessarily provide parents with more sleep overall (Doan, Gardiner, Gay, & Lee, 2007).

Infants whose primary source of energy is breastmilk will often wake frequently to nurse, something that is essential for the breastfeeding relationship to continue (Ball, 2009). However, regardless of feeding status, many infants wake regularly during the night (Weinraub, Bender, Friedman, Susman, Knuck, Bradley, et al., 2012). Waking through the night is normal and biologically adaptive. In fact, though it is often reported that sleep patterns consolidate in the second year, the pattern differs in breastfed children.

Breastfeeding moms may wake more often, but report greater total sleep. For example in a study following breastfed children for 2 years, it was found that these children continued to wake frequently throughout the second year of life, a pattern more in line with cultures in which co-sleeping and full-term (aka “extended”) breastfeeding are more common (Elias, Nicoison, Bora, & Johnston, 1986).

Night wakings serve to protect the infant. Night wakings have been reported as being more common in infants who bedshare with a parent, yet the wakings and bedsharing (when done safely) may actually protect the infant from SIDS (Mosko, Richard, & McKenna, 1997; Mosko, Richard, McKenna, & Drummond, 1996). The critical period for SIDS is up to 6 months of age (with the peak at 2-3 months) and night wakings may serve as a protective mechanism. In fact, if we look at parenting historically and cross-culturally, frequent night-wakings coupled with co-sleeping and breastfeeding are the norm for which we should be comparing other infant sleep behaviours.

“My child was sleeping through the night and suddenly it’s stopped.”

Imagine you’ve been waking regularly with night feeds and arousals, but as time passes they are decreasing. Then you realize you’re now sleeping in nice, long chunks. Hours of sleep all at once! And it’s wonderful. Then suddenly, as quickly as it came, it’s gone. Your wonderful, sleeping-through-the-night child is suddenly waking again. This experience, which is a reality for many, can cause frustration and despair accompanied by the feeling that you’ve done something wrong, or that you must do something to get their uninterrupted sleep back again.

But here’s the thing: You didn’t do anything. A return to night waking after periods of sleeping through the night is entirely normal. Many children’s sleep will cycle like this for a while. In fact, researchers looking at sleep patterns have found that often between 6 and 12 months, infants who had previously been sleeping long stretches suddenly start to wake more frequently at night (Scher, 1991; Scher, 2001). In fact, in one long-term study looking at child sleep between 3 and 42 months found that

there was no stability in night wakings or even sleep duration during this time (Scher, Epstein, & Tiros, 2004).

What causes the change in sleeping pattern? There are likely a variety of reasons, unique to each child. For some, it may be a growth spurt or teething. For others, it may be a cognitive leap that has them buzzing more so than usual or the appearance of separation anxiety. Just recently a study reported that babies tend to wake more often when they are learning to crawl. And for some, we may never know the actual reason. But as children age and each develops a circadian rhythm, they will go through cycles of sleep — some more convenient for parents than others.
Parents need to be aware that these changes are entirely normal, even though they can be frustrating. Hopefully once you know that changes are to be expected, you can be better prepared or at least not add anxiety to the sleep disruptions you are forced to deal with once again.

Next posts in this mini-series: PART 2, PART 3, PART 4, PART 6

Posts in Sleep Series:

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Bedsharing or Co-Sleeping Can Save Babies' Lives

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