



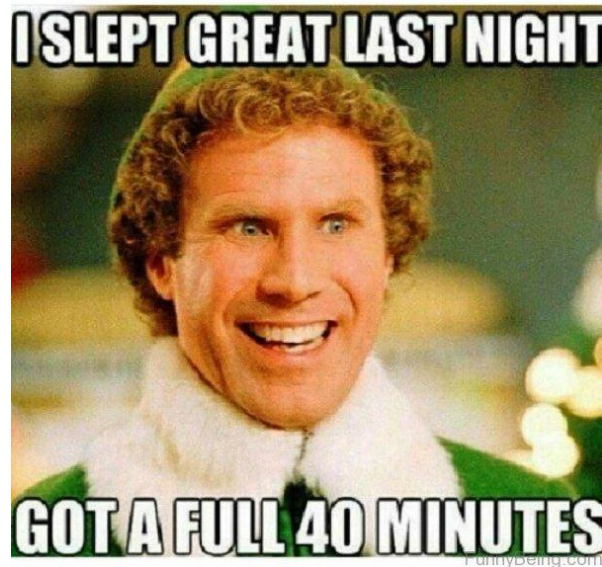
Welcome to this free sample from my course Back to Basics: A Course on Infant and Toddler Sleep. This course is designed for families who are either struggling with their child's sleep or who may be early on in their parenting journey and want to find out more about what to expect and what they can do to maximize their child's sleep moving forward. I hope you enjoy this free sample.

Back to Basics: Week 1: Sleep Development and Expectations

Welcome to the first week of our Back to Basics Course on infant and toddler sleep. During the next four weeks, I hope you will be able to gain a better understanding of your infant or toddler's sleep patterns and development, learn how to set realistic expectations, find a way to manage responsive parenting with your own needs, and take a look at the various things that impact sleep and how you may be able to fix some of them to maximize the sleep you can get. It's a lot to cover and each week you'll have optional homework to help you work through the issues that are discussed that week and hopefully understand how they pertain to your specific situation. If you need help with any of this, I'm here in office hours to see you through this.

As with most things, I find understanding sleep development and setting realistic expectations a helpful starting point, so without further ado, let's dive in...

Section 1: What Does Sleep Development Look Like in the First Three Years?



The first thing I need to make clear is that sleep *development* changes over time. This is different than sleep changing over time. What I mean is that the actual development of sleep is NOT something linear that consistently improves with time, but rather how it develops will also vary, leading to some very confused parents. To better understand this, let's start with a look at this in more depth.

For the first approximately 3 months (really from 2 to 4 months), sleep is more like an autonomic system. Our infants don't have much of a circadian rhythm at all and their sleep processes happen when there is enough input or stimuli to suggest sleep. This is why our infants fall asleep so readily at the breast, while moving, and so on. These are lulling behaviours that result in the initiation of sleep. This, combined with a very low threshold for awake time, means that parents often find that bedtimes are easy, naptimes are easy, and although infants may not sleep in very long stretches, resulting in lots of overnight wakings, they do sleep enough that we can work around it (if we're not forced back to work ridiculously soon and have some support, especially if we have other kids).

When this autonomic-like state finishes, the process becomes more 'effortful' and this is often when we start to see a real shift in our infants' sleep, and it's not for the better. Our infants start to have the basics of a circadian rhythm and they are actually using it to determine their sleep-wake cycle, but this system is still rather immature and there are many other things impacting the expression of sleep. Their sleep starts to be affected by hormone levels, their own sleep pressure as it builds throughout the day, and various developmental stages. As this stage progresses, sleep often takes a hit and parents note that their infants are waking more frequently during the night as the homeostatic system that helps us stay asleep is still developing and so it can be much harder to get and stay asleep (reasons for which we'll discuss in depth next week).

This means from approximately 3 months to 3 years, sleep patterns change based on the development of the circadian rhythm and, for our sake this week, the social, emotional, physical, and cognitive

developmental stages our infants and toddlers are going through and these stages are not linear. Instead of constant improvement in consolidated sleep, it looks more like a wave that starts out in the ocean and slowly builds until it crashes then builds again and repeats this process until it hits land. Consider the flat water further out from shore to be our baseline, or the period of many wakings and difficult nights that our infants start out with. As our infants grow and get comfortable with where they are at, they will be able to sleep a bit longer; this is the beginning of the wave which is followed by that particular peak, the time when you think that things are actually on the upswing for good.

Then that particular wave crashes back down and your child is suddenly waking regularly or for longer stretches or taking longer to go down at night and you wonder what happened. Then the wave builds again, only a little bigger, and you feel hopeful again and then something else comes along and it crashes. Each crash takes you down to very similar levels of wakings in the first year – just as the wave crashes back to baseline - often to hourly or every other hour wakings, but this can *feel* that much worse thanks to the height of the previous peak that made you think things are good.

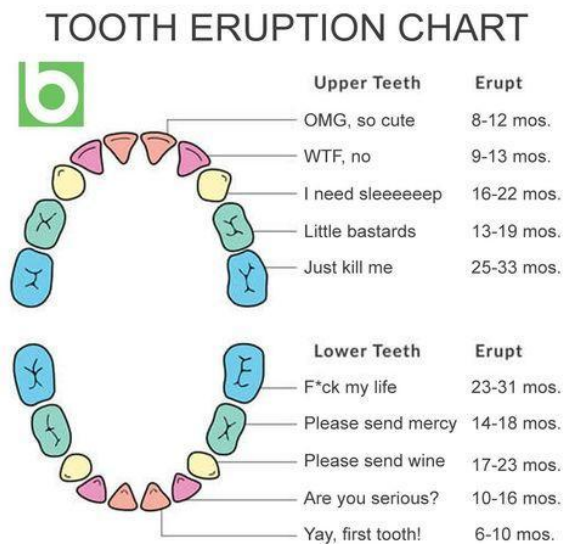
This wave-like pattern is why we see things like more 6-month-olds sleeping “through the night” (a 5-hour stretch by research definitions) than 12-month-olds. It’s why we have the 18-month sleep-regression. It’s why anytime in the first 3 years, you’re bound to hear a parent wonder what the heck is going on when it comes to sleep so let’s review some of this stuff in more detail.

Age (averages)	Developmental Leap/Milestone
2-4 months	More effortful sleep and use of own (limited) circadian rhythm
6 months	Teething often starts
6 months	Introduction of solids
8-10 months	Onset of separation anxiety stemming from the development of object permanence
8-10 months	Crawling and standing
12-16 months	Walking
14-20 months	First molars (and yes, molars SUCK when teething)
14-24 months	Language explosion
18 months	Peak of separation anxiety
26-30 months	Second molars (even worse than the first)
30-36 months	Nightmares (may start even earlier)
Various	Painful growth spurts
Various	Starting daycare or new child care arrangements
Various	Welcoming a sibling

Let’s start with the 2-4 month range which is when more effortful sleep starts and the circadian rhythm starts to take over. What I mean by “effortful” sleep is that infants prior to this are driven exclusively by their sleep pressure with little influence of any circadian rhythm. Note this times up with that “fourth trimester” and when other physiological elements move from automatic to effortful (like breathing). This is also the time when SIDS risk is the highest and it is possible that that heightened risk is in part due to this shift to less autonomic processes that are open to failure while they work all the kinks out. The issue of

sleep proximity has bearing on the discussion of SIDS. Deep sleep is a risk factor for SIDS and various normal behaviours – such as frequent wakings – during these early months may serve to protect the child during this time. Co-sleeping *safely* may result in a decreased risk for SIDS relative to sleeping in one’s own room. (A reminder that co-sleeping involves both room-sharing – which is even recommended for the first year by many health organizations – and bedsharing.)

Once this first difficult bit passes, parents do often report a stretch of semi-decent sleep, or at least improvement. Of course our infants are still young and we don’t expect them to be fantastic sleepers so for many we accept a few wakings and go from there. However, at or around 6 months, most of us face the next big test: teething. This is highly variable child-to-child, but there are a few ways that we know teething can impact sleep. The first factor is that it can be painful or uncomfortable as the teeth work their way through the gums (making that path for the first time, cutting through the flesh of the gum) and then emerge. But this doesn’t explain why sleep can be so messed up for so long prior to the eruption of teeth. The second factor may help address this. Prior to the eruption of teeth, children who are teething swallow lots of saliva as they gum down on things, trying to ease that pressure of teeth moving through the gums. Unfortunately, this can cause a mild inflammation reaction in the body which many people notice as strands of mucus in their teething infant’s stools. This inflammation often results in gastrointestinal discomfort, which is known to impact sleep. Although teeth start at 6 months (or thereabouts), this process is ongoing until past age 2 which means there are ups and downs associated with teeth coming in and even differences based on the type of teeth coming in. For example, canines and molars (especially the second set) are notoriously worse for sleep than most other teeth so you can expect worse sleep during these periods. I love the following meme which I feel seems to highlight the stages of teething pretty well:



At 6 months there is also the introduction of solids. For many this includes cereals or purees which can actually be quite difficult to digest for our young babies, resulting in more gastrointestinal distress. Some parents also overfeed their babies at this stage (often in an effort to increase sleep) which can cause further

tummy upset. Sticking with whole foods (not processed) and small portions is often easier on our infants and gives us time to see what they take to and what they struggle with.

Despite the double whammy, many parents actually make it through the 6-month period relatively intact (not all though and so don't feel bad if you've had a particularly hard time as this can be much worse if your child has intolerances or allergies or just a harder time with teething). What seems to hit them like a ton of bricks is when their babies hit around 8 months and continues for a couple months.

What happens here? Well, it starts with separation anxiety brought on by the development of object permanence. This means that our babies realize that when things go out of sight, they actually aren't "gone" but can return and this knowledge motivates them to call out readily *for* us when they realize we aren't there. At night this manifests as our kids crying out even more for us when they arouse because they may not just cry out of discomfort or a struggle to settle, but also because they feel anxious that we aren't there. This is why I hate when people suggest it's just a "want"; when we're dealing with young children and toddlers who are feeling anxiety, we should be treating this responsiveness as a "need". It takes *time* for our kids to learn that we come so you have to view this 8 to 10 month period as the testing of a hypothesis and gathering the data our kids need to feel safe.

In addition to this, most babies' gross motor skills are developing rapidly and crawling (and then standing and walking) are happening between 8 and 16 months. In a study that surprised no parent ever, gross motor skill development was linked with greater wakings at night (this holds for crawling, standing, and walking). If we think about how we feel when we learn a new gross motor skill or start going to the gym, we should know the kind of pain that is involved. This is part of the reason our kids wake more – it hurts! But there's also the fact that their brains are consistently practicing these moves and this can interrupt sleep as well. Regardless, sleep takes a hit and this is often up and down as these various gross motor skills develop over the period of several months.

You've made it beyond a year and you're really hoping things get better, but little did you know, you're really heading into some serious cognitive development and that kind of development also makes sleep much harder for our little ones. Typically after a year (around 14-18 months usually) language starts to explode. Our kids go from their few words to just picking up words and sentences galore. Many parents report their children even speaking in their sleep as they practice this newfound skill; my son went through a phase of randomly yelling in his sleep "1-2-3 Go team!" for like a month. It would jar me out of my sleep each night (we co-sleep) and I'd have to realize all was good and he was still sleeping. Families have reported kids singing during sleep, telling stories, and more.

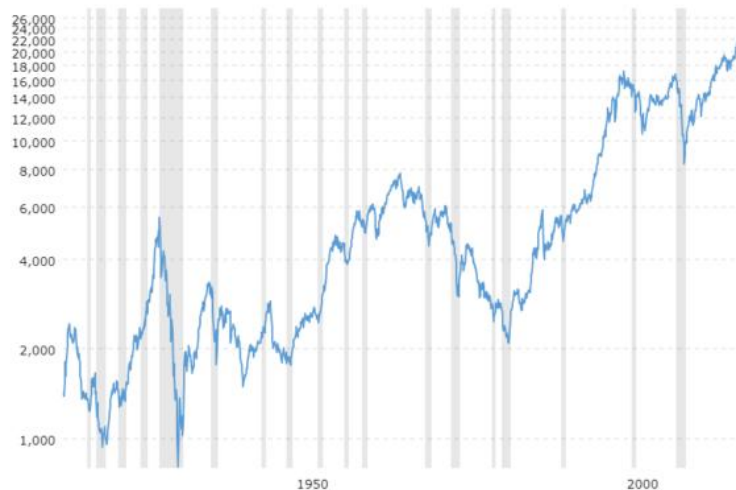
In addition to this, separation anxiety actually peaks around 18 months due, in part, to the start of the development of theory of mind. Theory of mind refers to our ability to view other people's minds as separate from our own and although that skill really starts developing between ages 3 and 5, the early signs of it appear around 18 months when children can identify that others have likes and dislikes that differ from their own. This coincides with more active empathy and concern for others. How does this impact sleep? Part of this seems to be that children start to realize they are more separate from their parents than they thought; this separation is scary for our kids and can result in heightened anxiety when parents aren't near.

A final element of cognitive development is the onset of nightmares which can be hard for parents to face, but actually just reflects cognitive growth and children processing their environment. Not all kids have nightmares, but the majority do and they are often in line with other transitions and development. Nightmares disrupt sleep and make it harder for our kids to settle and go back down, but they are “normal” and simply reflect how our kids are learning about their world. However, if you worry about this, take a look at what’s going on and see if you can help frame their world in a way that can alleviate this anxiety.

Overall, all types of cognitive development are associated with more time in light sleep which makes wakings far more common and makes it more difficult to fall back asleep as our kids’ brains are racing. Of course there are all the other things that happen at various times too, such as painful growth spurts, or larger changes, such as the welcoming of a sibling or starting daycare. These are all hard on kids and when they are facing any difficult times, they don’t sleep as well, just like us. Hopefully you can see how much there is going on here in the first three years and why sleep may be disrupted. Our children have *a lot* of growing and developing to do and sleep is something that doesn’t necessarily mix well with these things.

1a. “Sleep Regressions”: Why This Isn’t the Right Way To Think About Sleep

As mentioned above, normal sleep development is a fluid process filled with ups and downs, like the waves building and crashing. I have also been known to use the stock market as an analogy given it has all sorts of ups and downs and you can get a better visual. Just look at this image of the Dow Jones Industrial Average over a 100-year timespan:



You can see that there are ups, downs, and sometimes downs that make you wonder if it'll ever climb up again. Like sleep, you can't compare one day to the next, but you have to be in it for the long-haul.

The question most families have at this point is *Why these regressions???* How can children "lose" skills that they had in these periods of development?

I want to make clear that the issue *isn't* that they have lost skills, but rather how we all actually gain skills. Think about the first time your child learns to walk. It's tentative and slow, but they've got it. Now you bring them to the forest with hills and rocks and suddenly, they're falling all over the place. Has your child

forgotten to walk? No! Clearly the *level* of skill your child had wasn't ready for this harder terrain. Similarly, even us adults sometimes feel wobbly when we're trying to walk on a boat that's rocking back and forth and we've had years of experience. It's all about how our current skill level matches what kind of environment we're in; and for our infants, the environment can throw many a punches.

When it comes to sleep, those low periods are a reflection of our infants or toddlers being in a more difficult place thanks to other elements of development. As covered above, there are lots of things that our infants and toddlers go through and these all make sleep more difficult, but they are all necessary stages of development. We want our kids to grow, get teeth, move to solids, start to walk, learn to speak, and so on, and with this we need to accept that other things – like sleep – may be harder for a while as their brain processes these changes. We have to remember that to develop well, our kids need to feel safe and secure and that's what responsiveness at night provides them, as hard as it can be for us. (And this is why we'll get to the issue of self-care later in this course as you need to make sure you're okay so you can survive without putting the entire burden of change on an infant or toddler.)

You may have noticed I have been clear that cognitive development is linked to these periods of sleep disruption. This is in contrast to what most parents are told, which is that for cognitive development to happen, our kids need to have uninterrupted, consolidated sleep. So which is it?

1b. How Important is Consolidated Sleep?

Now, I have written on the issue of how often parents treat sleep as *the most important thing* they can do for their young children. I have heard the panic that children will be doomed forever, thus placing sleep above a secure attachment, feeding behaviours, and much more. So let's do a little review, shall we?

In a scientific review of the research on the link between sleep and cognition in the first year of life, the overall conclusion was that we have insufficient evidence to suggest a causal role between sleep and cognitive development, particularly consolidated sleep. That is, when we look at the studies as a whole, there's nothing to suggest greater sleep leads to greater cognition. So all those people scaring the heck out of you? Yeah, they're not really worth the worry.

In fact, when only longitudinal studies were examined (to account for interindividual variability), the following was reported:

- One study looking at sleep in postnatal days 1 and 2 and cognition at age 6 months found that longer sleep durations and fewer sleep-wake transitions were indicative of lower developmental scores at 6 months. They hypothesized that it was due to the fact that longer bouts of sleep in infants are actually suggestive of greater stress and this has impacts on neurocognitive development.
- In premature infants, higher cognitive scores at 6 months were related to lower sleep percentages, decreased nighttime sleep percentages, and increased nighttime activity at 36 weeks conceptual age.

- Adding to the confusion, one study found that the relationships between sleep rhythm patterns and cognition flipped during the first six months of life.
- More studies also found this reverse finding with early sleep and later motor development.
- When compared to infants at 6- and 12-months of age who were sleeping consolidated stretches (parent-report) of 6 or 8 hours at night, children who aren't doing those stretches show no difference in either psychomotor development or cognitive development, concurrently or later, at 36 months of age.
- Another study found modest relationships between greater night wakings and improved cognitive outcomes and no relationships between consolidated sleep and other social-emotional outcomes.

Of the studies that found relationships between more consolidated sleep and cognitive performance, one of the more interesting notes is that these studies are more likely to be based on one-time point assessment meaning that they are comparing across babies. It may be that once a particular level of cognitive development is reached, babies are able to then sleep more solidly than if they are in the process of that development. It is also possible that given the number of variables that can impact cognition, sleep is just one that may or may not have a modest effect based on what is happening with the other variables. However, the consensus right now in the literature is that consolidated sleep simply doesn't seem to impact infant cognitive development.

This brings me to the fact that consolidation of nighttime sleep is also quite variable. When we look at long-term studies of night wakings in normative populations, there seems to be three main times when groups of children naturally consolidate their sleep. The first is around 14-15 months and although research suggests there is a relative decent-sized group here, I don't know them personally. The next stage is around age 2 and this is when a large chunk of children seem to consolidate their sleep to much longer stretches and require less assistance to fall back asleep when they rouse. The final group has this happen around age 3, but there are still those who wake regularly beyond age 3 and that is complete "normal". Why your child wakes will be a combination of factors and many of those factors can be completely normal and it is worth noting that one longitudinal study looking at the impact of genetic versus environmental factors found that environmental changes had virtually no impact on consolidation of nighttime sleep; rather it seems based on a child's genetic developmental trajectory.

The concern when a child wakes is often about how much the wakings are impacting the child, but sleep disruption is what it is and can be very normal; when we see behavioural struggles with our children due to sleep deprivation, however, we should take note and see what can be done (things that will come up throughout this course and of course I'm happy to discuss in office hours). There is such a large range of how much infants and toddlers sleep at night that what is enough for one child could be too much or too little for another. This means we need to focus our efforts on identifying the symptoms of sleep deprivation rather than just looking at the number or even length of awakenings. If you find your child is showing delays and showing symptoms of overtired (like big mood swings and clumsiness) then there may be something there to be concerned with. However, most kids wake and are perfectly happy during the day and are developing wonderfully so there really isn't cause for concern over *their* sleep, it's ours that we struggle with (and that's worthy in and of itself, but it isn't cause to put the burden of change on our children).

This is the end of the free sample from Back to Basics: A Course on Infant and Toddler Sleep. Thank you for reading and if you would like more, you can register for the entire course at EvolutionaryParenting.com under [Courses](#).