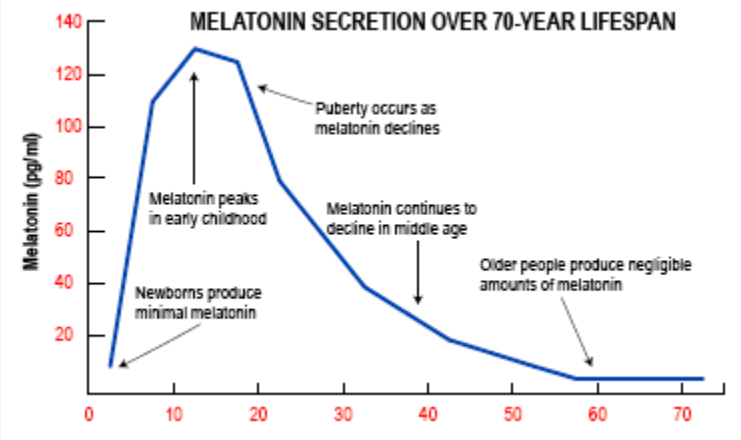
Week 2: Healthy Sleep Habits

Welcome back to Week 2 of our Back to Basics Sleep Course! By now you have hopefully had time to really look at your child to determine the type of expectations you can have given who your individual child is and maybe some shifting of expectations is helping with your overall mental well-being surrounding sleep. However, you still want to make sure that you are doing all you can to ensure the best possible sleep for your child (and by extension, you). That's where we're going this week when we start to talk about Healthy Sleep Habits and the external factors that influence our ability to sleep well (as compared to some of the internal factors we touched on last week).

Of note, this is the stage where I like to think of things shifting from "getting your child to sleep" to "letting your child sleep". We are often so focused on us parents having to actively get our kids to sleep that we ignore the healthiest thing is for them to be able to follow *their* rhythm and when they do that, they often sleep better than when we try to impose sleep. A warning though: Much of what you read here isn't want you have been told. We're moving far away from the mainstream view of schedules and the idea of ideal sleep patterns for children.

That's right. Most of you have heard that healthy sleep for an infant or toddler (or child) is about long, uninterrupted stretches of sleep on their own. Or about the importance of being able to fall asleep on their own. As I hope was clear from last week, we're going to ignore all that. It's worth noting that this is a very cultural-specific view of sleep that doesn't have a basis in biology. Yes, good sleep is essential for our children (and us) but what "good" sleep is varies person-to-person and definitely across development. Let's get started…

Section 1: Three Big Biological Processes



Source: Dr. Ray Schilling

There are three primary biological elements that influence sleep and lots of little things that we can do that interrupt these areas. Of note they are all individual for our children, which is why we likely see such huge interindividual variability in sleep times, awake times, awakenings, and so on. The three main biological elements are: sleep pressure, melatonin production, and cortisol levels. Let's take a look at each in turn.

1a. Sleep Pressure

The first thing we need to discuss is the importance of sleep pressure to healthy sleep. Sleep pressure is probably the only part most parents are aware of when thinking about sleep: if we're tired enough, we fall asleep. Generally speaking this is true, but as you'll see, even the most tired person can miss falling asleep thanks to other factors; however, without sleep pressure, sleep can be quite hard to come by (though yes, sometimes we can be bored to sleep or just be lulled to sleep via other cues, but this isn't good either as I'll get to later on). Each child has their own sleep pressure limits; that is, the amount of awake time needed before they reach the stage when their sleep pressure is high enough to sleep well and for *their own* longest stretch (how long the stretch is will vary child to child and over different developmental time points).

For younger infants, this time period is quite short and their sleep often is the full amount they need to alleviate the sleep pressure. As these infants age, this 'endurable awake period' increases and daytime sleep no longer serves to completely reduce the sleep pressure, but rather to 'take the edge off' allowing them to continue for another period before they need to do the same. This process of extending the endurable awake time continues until naps are done and children are awake for the day and getting all their sleep at night (though likely still not as consolidated as parents might like to think).

What impacts sleep pressure?

Well obviously there is the main factor of how long they have been awake. The longer the child is awake, the greater the sleep pressure and the easier it should be to fall asleep. This is why many

professionals who work on sleep with families focus so much on this notion of the endurable awake period. What most forget is that this period is always shifting as it is impacted by several other factors, including:

1. Age or development. It's hard to disentangle the two of these as they are so intertwined. Typically we develop with age, but the difference between children is *sooo* huge that to just have an arbitrary time based on age makes zero sense. Some 10 month olds go 5 hours, some 2 year olds only go 5 hours. Notably this isn't about cognitive or social development, but rather the development of the circadian rhythm and how well their system is able to overcome the sleep pressure through sleep. These are not linked to intelligence, maturity, or anything else that we have identified thus far, so please don't stress about whatever your child's endurable awake period is (as long as they are not showing signs of chronic sleep deprivation) and certainly please don't compare them to other kids.

2. Their last sleep. It should be no surprise that a longer nap often leads to a longer endurable awake period after the nap; however, what surprises most people is that actually the first endurable awake period is often the shortest despite coming after the longer period of sleep. This has to do with the structure of sleep more generally. (Please check the side bar below to better understand the structure of sleep.) So you can generally expect a shorter period before a nap than you would after one and this is part of why later naps can impact sleep so much – they reduce sleep pressure enough that our kids need to be awake for much longer in order to be tired enough for their night sleep.

3. Activity level. How active we are in a given day has a strong impact on how tired we are. The more active we are, the more tired we get and this is one of the reasons why we can see such variability within our own kids from day-to-day. Often parents report different sleeping patterns during the week than on weekends and this is often a reflection of the different types of activities that take place during those times.

4. Time outside. Nature is known to impact our ability to fall asleep and the more time we have outside, the better off we are in terms of falling and staying asleep. The general rule is that we need a *minimum* of 2 hours outside each and every day. If we fall short of this, it means we often won't be as tired as we need to come bedtime; more than this and we may sleep even more soundly. Of course, this is a number that is a guideline and what your child needs may vary from this. When my daughter was young, we realized very quickly that if she didn't have a minimum of three hours outside, bed was a struggle, but if she got that time then sleep was much easier.

<u>The Structure of Sleep</u>

What most people don't realize is that our sleep is actually divided into two distinct chunks (or three, according to some, but the second and third tend to be more similar to each other than they are to the first). The first chunk of sleep is dedicated to our body resting and recovering and we spend a disproportionate amount of time in deep sleep. This is often why our infants and toddlers have their longest stretch at the start of the night. (It's also why other cultures have younger children go to sleep later and at the same time as parents in order to give everyone that longer chunk. For example, the

average bedtime for babies and toddlers in most Asian countries is between 9 and 10pm.)

The second chunk of sleep is dedicated to the learning process. This is where our brain incorporates all the information from the day and learns what it needs to learn. During this period, our children spend more time in "active" sleep; that is, the stages that are lighter and easier to arouse from. This is why many families report that when there are frequent wakings, there seems to be a cluster at the end of the night, with our kids waking every 45 minutes to an hour for that latter half of the night. And of course, although we all spend more time in the lighter stages of sleep in the second half of the night, our kids spend more time than us in these stages. Adults spend about 20% of the night in these stages (disproportionately skewed to the second half) whereas our babies and toddlers will spend between 30 and 50% of their time in this stage. This makes sense given *how much* there is for them to learn.

This brings us to one more point: biphasic sleep. Because our sleep is split into two chunks, it is quite common for families to report their little ones are actually waking for an extended period in between these two stages. This is termed biphasic sleep as we have two phases of sleep with an awake period in between. This is the normal, human sleep pattern and was what we were *all* doing for years. There is tons of evidence of this throughout history and many hunter-gatherer groups still engage in this type of sleep today. Many young infants and toddlers will have a spell where this is the case until they have fully adapted to the modern schedule of nighttime sleep consolidation. My own kids have both gone through this – waking part way in the night and being happily awake. We survived and they both now don't have these long periods without extenuating circumstances.

1b. Melatonin

Many of you will have heard of melatonin before but may not understand its importance to sleep; basically melatonin is the hormone that helps us feel sleepy and sleep throughout the night. It is naturally produced by the body (by converting tryptophan) and only naturally occurs in two foods: breastmilk and cherries. Melatonin is part of our circadian rhythm and as such the levels fluctuate throughout the day with the lowest levels occurring around 3pm and the peak happening in the middle of the night – around 2 or 3am. Again, these are averages and different people can have different rhythms.

The thing to know for sleep is that if we don't have enough melatonin in our system, we will struggle to fall and stay asleep. Lower levels of melatonin at sleep onset have been linked to greater waking *within the same children*. That is, the same child going to sleep earlier when melatonin isn't high enough leads to more wakings than when they fall asleep when melatonin levels are higher. Of course, there is always the possibility that this is in part due to other factors, but there is a large body of research on the importance of melatonin to sleep and, specifically, the negative impact of not enough.

What are the key features of melatonin that you need to know about?

1. It's impacted by light. Many of you probably know the advice to not watch screens before sleep and this is based on the impact of light on melatonin production. Blue wave lights – like that produced by the sun – inhibit melatonin production and the degree of this inhibition depends on development. Research on adults has found that exposure to high levels of light reduces melatonin production by around 30% and after an hour, adults are "recovered" (which really means they're over half way back to their original levels). For toddlers (the youngest age tested), exposure to a tenth of the light adults were exposed to resulted in an 80% decrease of melatonin production and a failure to be "recovered" after an hour. This means that exposure to blue wave lights needs to be minimized for at least 90 minutes prior to the expected bedtime.

2. It's triggered by a drop in core body temperature. You know when you get really cold when you're tired? That's due to melatonin. Similarly, we can help trigger it's production by lowering our core body temperature in the evening. In a world where we tend to keep the temperature the same thanks to modern technology, this can be hard, but just dropping the temperature in the house by a degree or two Celsius can make a difference.

3. It's in breastmilk. All those people that suggest breastfeeding to sleep is "bad" or a "crutch" seem to be unaware that actually melatonin is *in* breastmilk and helps our littles fall asleep *and* build their circadian rhythm. As the levels of melatonin in breastmilk mirror mom's own levels, breastfeeding provides the basics of mom's circadian rhythm to baby and helps baby develop a rhythm that is more in line with mom's. This isn't a perfect process though so you may still have a baby who has a different schedule than you, but it certainly helps. Of course this has implications for pumping and mom's exposure to environments that inhibit melatonin production.

Melatonin and Nature

One of the more fascinating elements about melatonin is how it seems to be so in sync with nature. This likely shouldn't be too surprising for those of you who think about our evolutionary history and what our sleep environments were like, but even though I do the same, sometimes I'm amazed.

When we think about the day for most of us away from the poles, the sun rises and the day heats up with sun peaking in the afternoon and then starting to fade again. Our body's natural melatonin cycle is that it decreases throughout the day (as the sun goes up and temperatures heat up) until around 3pm when it's at it's lowest (this time varies, but it's an average), reflecting the highest heat point in the day earlier and subsequent response. Then as the sun starts to go down, reducing the exposure to blue-wave light and decreasing the temperature (even just a bit), our melatonin levels start to rise until they peak sometime after midnight. Humans use of fire – a red light – doesn't impact melatonin levels at all, so we have historically used a source of heat and light that won't disrupt this rhythm.

Now, for those who live at the poles, what's fascinating is that their bodies seem to have adapted to using different cues to set their circadian rhythm, with things like regular mealtimes dictating the production of melatonin. Though it should be noted they also often have "housing" that is completely covered to reduce exposure to light (e.g., igloo) and use fire as a source of light in the evening. Even modern-day folk who live in northern or southern areas that get lots of sunlight during the summer and

virtually none in the winter have found ways of minimizing this disruption due to the abundance or lack of light.

1c. Cortisol

Most of us think of cortisol as the "stress hormone" and it is, but it's also central to our circadian rhythm. As adults, the typical cortisol pattern for the day is that we have our highest levels at waking and then it slowly decreases throughout the day until we hit nighttime and then we sleep. For our infants and toddlers it's slightly different, though they often show that peak at the start of the day and lowered levels later, but during the day it can be a bit more up and down due to naps and increased need for sleep.

The problem with sleep comes when cortisol levels aren't low enough at bedtime. There is ample evidence that when we go to bed with high levels of cortisol (what this is will be relative to us as there's larger interindividual variability), we find it harder to fall asleep and stay asleep. This means longer sleep onset times and way more wakings. This shouldn't be too surprising if you think about your own sleep and how it is when you've got something on your mind that makes it harder for you to fall asleep. Not only can you lay awake for hours, but once you fall asleep you may find it invades your dreams and makes sleep that much harder to obtain.

Obviously, the key here is to minimize stress prior to sleep and make sure your child is actually tired. If our kids are not tired enough for sleep, they will still have too much cortisol for a good night's sleep as it is one of the hormones that is released by the pineal gland to counter that sleep pressure build. We'll talk about the psychological factors that can affect cortisol in the next section.

Melatonin and Cortisol and the Structure of Sleep

The structure of sleep covered above should not be separated from the effects of melatonin and cortisol. It is actually precisely *because* of these hormones that we have this particular structure. When you think about the rhythm of these hormones, our deep sleep stage comes when we have our rising/high levels of melatonin and the lowest levels of cortisol. When we move into the more active stage of sleep, it is in part because our melatonin levels are decreasing while cortisol is rising, getting us ready for the morning.

Of course, this rise in cortisol also goes with research that certain levels are optimal for learning. When we think about how much we learn in that active stage, it should be no surprise that we need *some* cortisol for our brains to take in this information. However, I want to be clear that at no point does this mean that *high* levels of cortisol are good for learning; that's just simply not the case.

1d. Common Problems Related to Physiology

What are the problems that could signal an issue with physiology?

1. Sleep onset time takes longer and longer. My rule of thumb is that sleep should come within 10-15 minutes. After that we often get too stressed to be able to remain calm and this starts a negative cycle in which our stress increases our child's stress which makes sleep that much more difficult for them.

2. You have to do more and more to get your child to sleep. It used to be that your child would go down quickly, then you had a rock for a while, then bounce, and before you know it, you've got so much going on to get your child to sleep that you know it's just not sustainable.

3. You feel like your child is regularly "overtired" and can't fall asleep. Your child shows the signs of tired – like rubbing eyes and yawning – and then suddenly they are wide awake and hyper and can't fall asleep. This is particularly worrying if you fear this is a chronic problem that may lead to overall sleep deprivation.

4. Your child is a restless sleeper. Some kids just move so much and seem to be stuck in a light stage of sleep for the night that you know they can't be getting a good night's rest.

5. Your child doesn't have that first deep stretch of sleep, or it's inverted and comes at the end of the night. You really do want your child to have that good stretch at the start. Having it later will still help your child get caught up, but can mean they are more likely to nap later in the day which throws off the sleep pressure for bedtime and may be a cause of the inverted structure of sleep.

What are some of the things you can do?

1. Push bedtime back. According to research on melatonin production, the average bedtime for a toddler should be closer to 8:30pm, much later than what most families aim for. Of course there's interindividual variability and so some kids may naturally go to sleep well at 7pm and others at 10pm, but for many, earlier bedtimes are part of the problem. Now this isn't just due to melatonin, but also sleep pressure which needs to be high. This can help both longer sleep onset times and when you need to do more to get your child to sleep.

2. Dim the lights! I can't emphasize this enough, but having your evening include dim lights can be a game changer for sleep. This is particularly important if you have LED lights which actually emit *more* blue-wave lights than traditional bulbs. Now you may not have dimmers in your house (we don't), but you can do a couple things to help with this:

    a. Shut off most lights and keep just some on with lower wattage bulbs in them.

    b. Consider having some lights with red lights to avoid any melatonin suppression.

    I also recommend setting a timer to help remind you to do this at night. The more cues you have to remind you, the easier it will be. This can help with many of the problems.

3. Ditch screens before bed. This is good from a psychological perspective too (we'll discuss in the next section), but screens emit blue-wave lights. If you absolutely have to have one, make sure you use the blue-light filter which most new devices come with.

4. Ditch the nightlight. We all think we need nightlights for our babies, but we don't. Some kids will struggle with any light in the room and this can lead to more wakings and disruption, especially in the early hours of the morning. If you absolutely must have a nightlight, make it red and as far away from your baby as possible.

5. Keep your child cool before bed. Lower the temperature in the house or even just shed some layers on your child so they can cool enough to keep melatonin production ramped up. You will want to put on PJs *right before* bed, not sooner.

6. Check your stress levels. Given the impact of cortisol on sleep, sometimes we are the problem. If you find yourself dreading bedtime before it comes, you may need to find ways to calm yourself before starting the process, or cut it short if you feel you're getting upset. When we get stressed out, we actually can "pass" this stress onto our kids which makes sleep even harder for them. In order to help facilitate their sleep, we need to be the calm ones.

7. Identify and wait for pre-sleep energy to pass. That whole fear of overtired is often misunderstanding the sleep process. Pre-sleep energy is the kind of energy our kids get right before being able to fall asleep. The way our sleep pressure works is that it continues to rise throughout the day, but in order to keep us from just falling asleep all the time, our pineal gland releases hormones to help keep us awake or counter that sleep pressure. When our sleep pressure hits its highest stage, we see those early sleep signs right before the pineal gland releases that final burst of hormones. This final burst of awake hormones causes our kids to go bonkers. They need to go bonkers to get rid of these hormones in order to sleep better and if we try to get them to sleep, they physically won't be able to sleep and they won't release those hormones which can make overnights that much harder, with restless sleep and frequent wakings. Us adults have the same period, but as our bodies are better equipped to deal with the influx of hormones, we just can't sleep and feel more alert as opposed to bouncing off the walls.

   This stage naturally passes and typically takes about 40-60 minutes. The key is to know the difference between pre-sleep energy and overtired. In pre-sleep energy our kids are hyper, but happy. In overtired, they're more bipolar, with periods of hyper and happy and then complete meltdowns. If you are in overtired mode, get your child to a calm, dark environment for 20 or so minutes then try bedtime.

   Some people talk about crying-in-arms before bed and sometimes this is due to people not allowing the child to release the energy in a physical way and so our kids cry to release this energy. I do not believe this is a good practice to follow. Their natural inclination is to be able to move about to release this energy and so taking that away from them and forcing a cry is just not a good substitute given how crying can also result in feelings of sadness and distress which can then lead to later sleep resistance.

Section 2: Psychological Readiness

Although most of us think of sleep as *just* a biological process, dictated by physiological elements, we cannot ignore the very real impact of psychology. Generally speaking, we require a calm mind and feelings of safety and security before going to sleep. As an adult, imagine you're thinking about a big presentation the next day, or know you have to wake up early for a flight, how well do you sleep the night before? Likely, not very well. Or what if, as you're trying to fall asleep, we think we hear someone trying to break into the house? How well do you fall asleep then? Again, likely not very well.

This is because when our brains are too focused on other things, we struggle to calm the mind enough to allow us to sleep deeply and sleep well. Our children are no different in that they can end up with a lot on their minds, especially at a young age when they are striving to make sense of the world around them, and often require us to feel safe. We often ignore the psychological plight of our young children because they don't have the capacity to talk to us about what these issues are. Even when our kids become verbal, it takes quite a while longer before they are able to articulate what it is that bothers them enough for us to do something about it.

When children are not ready for bed psychologically, this can result in difficulties falling asleep and difficulty staying asleep. This can link to the physiological in that if they are worried or scared before bed, this can lead to an increase in cortisol which, as covered above, is linked with reduced deep sleep and more wakings. Depending on what is on their mind and their age, you may even see nightmares starting or even occurring regularly.

Luckily, there are areas we can focus our attention on as parents to help ensure our children have a calm mind before sleep. I hope you can find ways to promote all of these activities as they are needed for your little ones and am happy to discuss ways to incorporate these into your lives in office hours if the help is needed.

1. Be aware of stimulation during the day. Our younger children are often overstimulated in ways that aren't so great and understimulated in the ways they need to be stimulated thanks to our modern society, as discussed last week. A reminder that the types of stimulation that can cause overstimulation include: bright lights, loud noises, crowded environments, and so on. The type of stimulation that does them well is, not surprisingly, what they evolved to be around: nature, human faces and contact, and fresh air.

   When we think about a child's day, how much time was spent in appropriate versus overstimulating environments? If you need to, add in a nice walk outside at the end of your day to ensure that you at least close out the day with a nod to nature and the kind of environment that stimulates sleep.

2. Processing their environment and day. For most kids events can happen that they struggle to make sense of and given how much they are exposed to on a daily basis, this can happen frequently for toddlers (and preschoolers) in particular. There is so much that they are trying to figure out and put into place that often these events can be disruptive to sleep. Sometimes it's something that happened during the day (e.g., getting hit by another child) or something they saw (e.g. walking in on an adult-themed show). Even young babies can benefit from you helping them process their day as their verbal understanding far outstrips their production for quite a while. This is simply a matter of taking the time to talk through the child's day with them, highlight any areas that may have been scary and discuss the emotions, and remind your child they are safe with you (not "fine", safe). If your child is old enough to talk about any of the day, you can see where their questions go too.

   One area here that often surprises families, but for which I've seen a lot of success, is story time before bed. Or rather, the *lack* of story time before bed. Lots of families have reading stories as a central part of their bedtime routine; however, I argue that it's actually not an ideal thing to include *then*. I love stories and want you to read all the stories to all the babies, but not before bed. The reason is that even children's stories have elements that can be very difficult for kids to process and this can lead to troubles maintaining sleep as their brains work to make sense of what was read. I urge you to take one of your kids' books and just read it with the idea of what your very young child can comprehend, especially given how literally they take many things.

3. Make sure you are emotionally available at bedtime. Often us parents in our Industrial cultures are very distracted come nighttime. We want our kids asleep so we can get everything else done, but this very act can backfire. Our kids, who are built to pick up on our emotional state to help their very survival (and this seems to be amplified for those who are on the more sensitive end of things), sense this disconnect and it instills a sense of fear or anxiety around bedtime. When we aren't emotionally available we're sending the message that the environment isn't safe and, remember, safety is key for sleep.

   What does emotional availability mean? It means being open to all the various emotions your child may have at that time and being present and calm for them. This is hard because sometimes their emotions at the end of the day can be difficult and harsh, but this often reflects the type of day they've had or the fact that they are really tired. Children who are upset come bedtime have likely

had a harder day, perhaps through something happening they haven't processed or even just being overstimulated in the wrong way, and this makes our ability to be with them and help them feel safe even more crucial. As a general rule, if you can take a minimum of 30 minutes with your kids at bedtime and help them as they need to fall asleep (there's no bad habits here, but we'll get to that later in the course), chances are you'll help their overall sleep.

4. Calm them as needed. This is linked to emotional availability but is actually a bit more active. As you have hopefully realized, there's a lot going on for our kids and sometimes they need help calming their brains before sleep. There are several ways to do this and you'll need to see your child's specific needs to determine which will work best:

    - Nursing. If you are nursing a child, this can be a perfect way to help them calm down.
    - Massage. This is very calming for some kids, but if your child has any tactile sensitivities it may be too much. Some kids also don't want to stop what they're doing for a massage and that's okay.
    - Personalized story. Some younger children especially like personalized stories. By this I mean you telling a story just about the child with no drama (remember what I said about story time) and just them doing things they love. Bonus is to tell it in a slow and steady pace.
    - Guided meditations. There are guided meditations for young children that you can have playing that can help calm the mind.
    - Pink/brown noise. This is the type of sound that has been found to calm the brain and assist with sleep, but also is what is typically found in nature (think ocean waves, river sounds, wind through trees, etc.) so it shouldn't be surprising that it calms us. Of note: white noise is good for blocking other sounds, but isn't as good as inducing sleep as pink/brown noise.
    - Lavender. Some people respond well to smells and lavender is one that is supposed to be calming. Contrary to what some might say, it's not a cure-all, but for some it really is relaxing.

5. Co-Sleeping. The ultimate feeling of safety comes when we are there and so even if we're there at the start of the night as they fall asleep, some children need us close all night *and that's okay*. It is utterly normal for young children to need their parents at night – all night – and for some, if they wake alone, this can cause anxiety which makes the rest of the night harder. We'll cover this more when we talk about the idea of bad habits, but I wanted to quickly mention it here because for many children this is the ultimate way to feel psychologically safe all night.

A Sample Evening and Bedtime

Some of you may wonder what all this put together looks like, so here is how it can look. Of course I'm happy to talk about your situation specifically in office hours.

2 hours before bedtime: Dim lights and lower temperature.

2 hours to 30 min before bedtime: Allow your child to play freely in this dim environment. Perhaps play some soft music, but do not try to keep your child calm, rather let them express themselves as needed. Keep an eye out for pre-sleep energy.

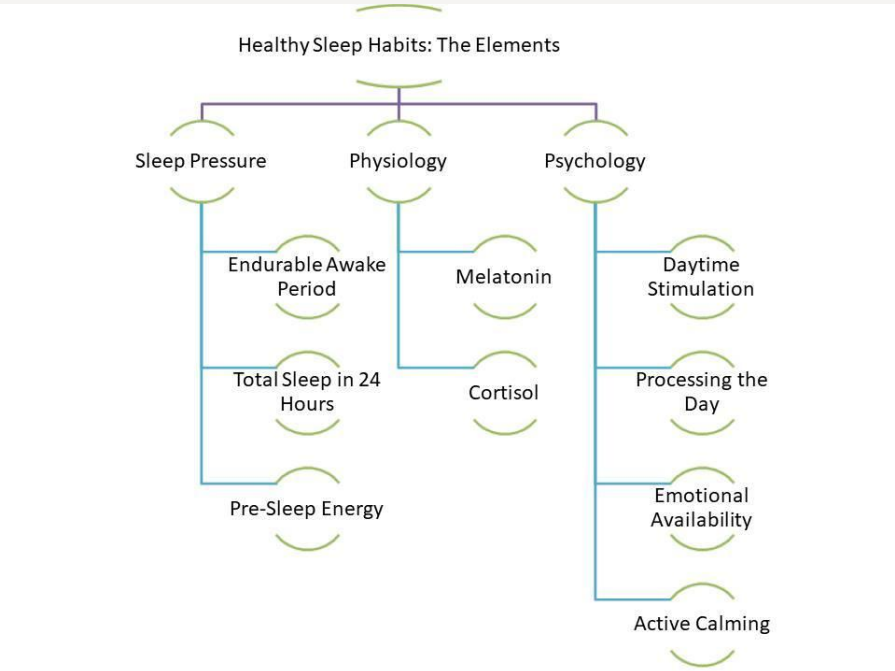
Starting around 30 min before bedtime: Focus on emotional availability by engaging with your child, talking with them as needed, and being present for them. As they may be hyper due to pre-sleep energy, you may need to wait until they're on the downturn from that.

After pre-sleep energy is expended: Move to the 5 minute bedtime routine of teeth, PJs, and diaper. No stories!

Bedtime: Cuddle, nurse, rock, whatever your baby/toddler to sleep. Remain calm. If your child is not asleep within 15 minutes of so, it's okay to get up, do something for yourself, then try again later.

You may include a variety of other things here like lavender scents, pink noise, and so on. Those are all individual choices.

Here's a bit of a summary of the key biological processes impacting sleep:



Section 3: Napping

Do you worry your baby isn't napping enough? Naps are too short? Too infrequent?

Despite most the discussions out there from sleep trainers and the like, there is actually little that we can say about true healthy napping habits. I know many of you have probably read a ton about how much daytime sleep your child needs and when and then you can panic if your child doesn't reach that, but it's time to learn the truth.

Napping is highly, culturally variable.

There is no magic pill or magic number. What we do seem to know is that many cultures don't worry about nap times the way Western, Industrialized cultures do. Babies and toddlers nap when they are ready to nap – wherever that is – and then wake when they are ready to wake. Often they nap on the go, not in a set napping location like a crib, and many nap for shorter periods than an hour at a time, some even more like 20-30 minutes at a time.

There are, however, a few key points that we can make about naps that are worth knowing when it comes to building longer-term healthy sleep habits:

1. The napping environment should not be as dark or quiet as the bedtime environment. In fact, a review of research found that this may actually inhibit the consolidation of nighttime sleep and that should be no surprise as children wake in a dark environment and then expect to do the same at night. I often suggest napping environments be different from nighttime sleep environments to avoid any associations with the night and the regularity of waking after a sleep cycle or two.

2. Cat naps are not bad. There is nothing that has found them to be detrimental to any type of well-being. In fact, for us adults they've been found to be downright beneficial. Remember that as your child ages, they become more *efficient* at sleep and this means that shorter naps are needed to achieve the same result in terms of reducing sleep pressure. In fact, in some cultures children's naps are limited to a shorter time and they are woken up after one sleep cycle.

3. Contact napping is normal. Young children and toddlers often sleep "on the go" with caregivers as they are wrapped up or in a carrier of some kind and there is nothing wrong with that. It is often associated with shorter naps because there is so much going on that kids naturally wake in the light stage of sleep to see what's going on. (If this does not work for you anymore due to size or circumstance, we will be covering how to make gentle changes later in the course.)

4. Napping outside is wonderful. Even in the dead of winter, Scandinavians bundle up kids and they nap outside so only extreme heat or blizzards should be the issue, but any nap time in fresh air is wonderful for kids and time you can actually count as outside time (though they also should be out while awake too!).

5. Don't worry about set nap times. Children are so variable when it comes to naps that you can pretty much throw out any chart in favour of looking at *your child*. Some kids need multiple naps totalling hours a day. Some have one long nap. Some do multiple cat naps. See your child's behaviours during the day to determine if they are getting the sleep they need each day. If your child wakes cranky from a nap and there isn't something else going on (like teething or illness) then chances are the nap wasn't long enough *for them* in that moment (but it may be long enough on another day or at a different nap time). At that point you can choose to try and get them down again or just see if you can help perk them up knowing something interrupted that sleep time and it's likely developmental or discomfort.

6. Naps go up and down. Napping is also affected by leaps and development and can result in periods where children nap less during the day – to the point where parents think they're dropping a nap or all naps when they aren't. Although there's no evidence I can find on these times, clinically I have found that many families experience a drop in naps in the 14-18 month range and then they pick back up again. However, families have shared these "nap lulls" at almost all ages.

7. Don't try to force a removal of a nap. This rarely ends well for anyone as it often leads to overtired and cranky children who struggle most of the day. When our kids are ready, they'll drop those naps. If you are facing an issue with daycare who wants your child to switch naps, let me know in office hours and we can try and see if it's reasonable or if you need to figure out a Plan B. (Note I talk about naps in my finding daycare ebook/guide and am happy to share it with those of you going through something like this.)

8. Don't wake a napping child. Yes, I know I said other cultures do, but here's why I say no: it doesn't help the circadian rhythm. Really. Because we might be waking our kids mid-sleep-cycle, this doesn't mean they are as refreshed and can actually struggle more and get more overtired even with that bit of sleep. What you *can* do and what I wholly recommend is to set the environment to

one they will want to wake to when they are in a lighter stage of sleep. This means lights on, background noise (not too loud or you may hit the inadvertent waking), and especially human voices. If our kids *need* more sleep, they'll sleep through that and you'll know they're getting the sleep they need, but if they wake from it (and it's not too loud), they may take a moment to come around, but then they are often rather happy to be joining in the fun.

9. Let others find their way with naps. We often set the nap routine to be something that is steady, but actually letting different people find their way with naps avoids the issues of our kids associating their routine with the person who does it most of the time (and in turn avoiding those who don't). In fact, the more different people can do naps, the easier it will be for your child to adapt to others doing naps, but of course this means just letting your child fall asleep when they're tired, not forcing naps on them.

Like all things, you'll have to work through what works best for *your* child and naps, but please if you do anything, it's throw away the guides that have you freaked out. They aren't worth the paper they're printed on.

This is the end of Back to Basics: Week 2: Healthy Sleep Habits