



# SLEEP MATTERS

With Lucy Wolfe

## The importance of sleep for our national school children with Lucy Wolfe, HDip RM, MA

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## Why do we sleep?

Sleep is necessary to ensure that our children are optimally functioning-sleep is not just rest; whilst sleeping our brain and body is repairing and restoring, supervising a wide variety of biological maintenance jobs that support our immunity, muscle growth, emotions and brain processing ensuring that we and our children can function at an optimum level by day and live a nourishing and healthy life. Without adequate sleep there is an **increased risk** of the following:



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## Some possible effects of not sleeping enough

Day by Day	Long-term
Reduced alertness	Depression
Daytime sleepiness	Heart disease
Low mood	Diabetes
Lack of motivation	Obesity
Poor decision making skills	Some cancers
Increased risk of negative thinking patterns	Lower life expectancy
Poor judgement	Dementia
Less creativity	Alzheimer's
Absenteeism	



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## The two processes that regulate sleep

Falling asleep, staying asleep, and napping (when age-relevant) are all rooted in your child's biology. Just like language or motor skills, sleep matures over the first years of your child's life. As your child grows, the patterns and physiology of their sleep will change. Briefly understanding what is going on in the brain and body will make you better able to support your child's sleep development.

As your child grows, two main processes begin to regulate sleep. The homeostatic sleep drive and the circadian system.

The **homeostatic sleep drive** is like pressure that builds the longer you are awake, and then releases when you sleep.



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## **The circadian rhythm and internal clock**

The other system regulating your child's sleep begins with a powerful internal clock nestled in the brain. This clock is a biological pacemaker that controls the circadian rhythm allowing us to initiate the light and dark pattern of day and night. The internal clock sends messages through the 24-hour day influencing our wake patterns and many other biological processes. As bedtime approaches, our temperature begins to go down, and levels of the sleep-inducing chemical melatonin rises in preparation for sleep. Toward morning time, the activating cortisol rises alerting the body to awaken.

These systems interact and influence when and how long your child sleeps; the best quality of sleep will happen when the two are coordinated or in sync with each other.



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## **Types of sleep**

Sleep itself, is categorised into two main stages: rapid eye movement REM sleep and non-rapid eye movement NREM sleep and this has own three main stages that I outline below. Overnight, the brain transitions through these stages approximately every 90 minutes cycling through drowsiness, to light and dream sleep and into more deep sleep again.

We all transition through 4 stages of sleep. NREM and REM Sleep

### ***NREM***

Stage1- eyes closed, on the threshold between awake and asleep. You can be easily awakened, you may jerk (myoclonic jerk). Stage 2 This is light sleep, your heart rate begins to slow and body temp goes down. Stage 3 Slow wave sleep, now you are in deep sleep. Blood pressure and heart rate go down, and your breathing slows. It is harder to wake you up. A lot of deep sleep happens in the first part of the night.



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**REM-** approximately 90 minutes after falling asleep, your brain becomes active, but voluntary muscle movements are inhibited. Brain waves are faster and less organized than in non-REM and the eyes scan back and forth under the lids. REM is the stage in which dreams occur. As the night progresses you experience more REM sleep

## **Sleep cycles**

- Each sleep cycle by 3-4 months of age onwards this starts to increase to ca. 90 minutes. As your child starts to cycle through the sleep stages NREM & REM, they will have a partial arousal as they pass through the light moments and this is where you are most likely to hear them and is it is sometimes here too that we experience your child unable to transition through their sleep cycles without parental input, that may lead to a reported sleep challenge.



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## How much sleep do we need?

Age	Amount
4-12 months	12-15hours*
1-2 years	11-14 hours*
3-5 years	10-14 hours*
6-12 years	9-11 hours
12- 18 years	8-10 hours
18-64 years	7-9 hours
64 years +	7-8 hours

Source: Hirshkowitz, M. et al., 2015

**\*Including Day Sleep**



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## **Common sleep difficulties- not exhaustive**

- ✓ Trouble falling asleep
- ✓ Resisting bedtime
- ✓ Preferring a later bedtime
- ✓ Waking up at night
- ✓ Long wake periods overnight
- ✓ Restless sleep
- ✓ Early morning waking
- ✓ Not feeling well-rested

Recent studies have reported an overall prevalence of significant parent reported sleep problems with 37% of this 6-12 age group, with 15-25% prevalence of bedtime resistance, 10% prevalence of significant onset delay and anxiety at bedtime and 10% prevalence of teacher-reported and parent -reported daytime sleepiness. Another study found that 1/3 of school aged children had difficult waking in the morning and 10% feel tired during the day.



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## What influences your child's sleep?

Like most childhood developmental processes, sleep is multi-dimensional with many force factors impacting the sleep experience and your child's sleeping patterns: everything that they think, feel, see, do, hear, eat and drink affects their sleep. Everything the parents, think and feel, see, does influences your child's sleep. Essentially, we are talking emotional, environmental, psychological, physiological and so on. **It is all about relationship** ....their relationship with sleep-their parent, and with themselves. Relationship with the sleep environment, activity, food; the emotional and physical temperature, textures, scents, noise and so on. Furthermore, the parents own relationship within, has an influence on how our children understand their holding worlds of home, school and community.

Further factors that are outside of the cope of this presentation, include underlying medical issues such as reflux, food sensitivities and intolerances, upper respiratory issues, coughs, asthma, upper airway problems e.g. sleep apnoea/sleep disordered breathing, skin problems e.g. eczema. dental problems e.g. cavities/irritated gums, neurobiological problems e.g. headaches, seizures, restless leg syndrome, pain e.g. ear infections or internal pain.... Can all affect your child's sleep.



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Sleep has its own design properties and studies demonstrate certain dynamics that contribute to your child's sleep pattern and profile.

1. Sleep associations- what conditions does your child require when they are going to sleep and what do they require overnight?
2. Biological time keeping- what time is wake time and bedtime and the time that they go to sleep and; do these times vary day by day and if they are co-ordinated with their internal body clock. Children who are overtired experience a chemical response of cortisol that can make it hard to achieve and maintain sleep



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## **Common causes of sleep challenges**

Over-tired

Under-tired

Overstimulated

Inadequate preparation for bedtime

Irregular/late wake and bedtimes

Environment not conducive to sleep

Needs a parent present

Drinks too close to sleep time

Conditions change post falling asleep

Fears, stress, anxiety

Sleep location changes overnight

Unpredictable responses



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## Let's talk about bedtime...

Bed "time" is more predictable when children are younger ranging from 6-8.30pm. From 8 years onwards this becomes more individual and will depend on many factors. We also know that as your child is getting older, parents appear to be less boundary focused on bed-timing that may lead to severe challenges around the onset of adolescence; as social and school demands increase alongside, physical, hormonal and psychological shifts.

## Considerations to establish your child's bedtime:

- ✓ Observation, and following your child's lead. Assessing mood and behaviour – what do they do when they are getting tired versus overtired? With children under 8/9 you can assume that an earlier bedtime is always required and starting bedtime as early as 630pm can help discover the natural bedtime over a few nights. This approach is less effective as your child gets older.
- ✓ Working backwards from their wake time and calculating how much sleep they require. For example if they must be awake by 7am then to get even 10 hours they would need to be asleep by 9pm, however, I often discourage focusing on hours of sleep and I am interested in ease: considering how long it takes them to go to sleep- anecdotally we hear 10-15m as being an ideal but if it was taking 10-40m then I would consider that to be progress.
- ✓ When sleep onset/resistance/delaying is a challenge then it may be worth initially focusing on helping them get to sleep with ease, taking less time, and then working on ensuring enough sleep by adjusting bedtime earlier once established.



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## Some steps towards better sleep

- Decide and define where do you want your child to sleep-where they fall asleep ideally is where they will wake- demonstrate this in your words and actions
- Create a suitable sleep-friendly environment- consider all of the senses- quiet, dark, cool, comfortable, the mattress, the bedding, the pillow...disturbances, siblings, pets. Remember If you play music or white noise it may interfere with their ability to stay asleep due to association.
- Ensure a regular wake time between 6am no later than 7.30am and avoid variation even on weekends. Observe that the wake-time allows for a calm start to each day and that there is time for connection before school. A post sleep ritual is as important as the bedtime routine.
- Encourage exposure to bright and natural light first thing and routinely good outside activity and fresh air. Avoid strenuous activity/sports too close to sleep time (2-3 hours beforehand is general recommendation).
- Understand that bright and natural light exposure by day has positive implications for your child's sleeping patterns, so too can initiating a darker environment as sleep approaches
- Create regular meal times and consider the foods and drinks that do not help sleep. *Anti-sleep foods include:*  
Caffeine, sugar, processed, high-sugar foods and refined carbohydrates. Consider hidden sugar, vitamin supplements and inhalers,
- Avoid heavy meals too close to bedtime- consider a light snack- see sleep super foods list attached



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## Some steps towards better sleep

- Avoid TV and electronics an hour or more before bedtime- set a loving boundary about this. This is the time to create the limits that you will take into the teenage years. Habits you instill now, reduce the vulnerability later on, with late sleep onset, sleep deprivation and loss sleep all attributed to gadget use and exposure.
- Consider that drinks in the bedroom/as part of bedtime routine and overnight may undermine your child's sleep- sucking close to sleep time- even water -can influence how they maintain their sleep
- Open communication and active listening are important. Have a family meeting introducing your child to new sleep approach; engage and trust your child with the changes that you are making
- Having identified the suitable bedtime-begin to wind down with calming activities ca. 1-1.5 hour before the bedtime routine begins, to build a bridge towards achieving sleep
- Introduce a bedtime routine-that happens in the room that your child will sleep in- based on age, and preferences, decide on the ratio of parent accompanied v self directed as per age
- Reserve the bed for sleep only and have the routine activities outside of the bed itself



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## **Suggested calming activities- an hour or so before the bedtime routine begins**

- Listening to music
- Reading
- Wordsearch
- Crosswords
- Drawing
- Colouring
- Puzzles
- Jigsaws
- Family time



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It is the deep-seated need for each child to feel seen, heard, loved, safe, secure and belonging to the holding world of family. It is important that we are creating a loving, attentive, warm, responsive family culture that honours your child's individuality. Children flourish with their parents loving presence- ensure that we are spending lots of one to one, connected time with each of our children-nothing to do with sleep. With plenty of dialogue, eye contact and physical touch. Practise active listening and being wholly available to them and try your best not to be distracted by modern life such as phones when we are focusing on them. Anxiety can play a large part in our child's sleep experience. Sourcing the root of the anxiety, remembering that all behaviour makes sense is important. Creating opportunities by day to discuss the worries, draw and write them down can help. Breathing exercises, guided mediations, worry boxes for example are general suggestions that may reduce the suffering.



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## **Suggestions to create positive bedtime routines- adjust activities as age appropriate**

- Ideally in the bedroom where your child will sleep following the bath, shower, teeth – 20-30 minutes before you anticipate “lights out”-bed “time”. This must happen in the bedroom, but not on the bed. The bed is reserved for sleep. If study is happening in the bedroom try to create defined space for this / hang out area so that the bed’s function is promoted to indicate to the brain- this is where I sleep.
- Use visual aids to support bedtime- check lists, storyboards, lamp on timer, bedtime zone in bedroom. Encourage a logical and linear sequence to the bedtime routine that leads to getting into bed with lots of opportunity for connection with the parent when applicable.
- Have the same ritual each night; limit the bed activities to 2-6 items e.g. foot rub, story-time, songs, cuddles, chats, relaxation/ breathing exercises, visualisation, meditation. Create a beginning, middle and end to the bedtime process to help avoid stalling and to ensure maximum connection
- Create space for your child’s involvement and their own sense of being in charge- lots of choices, engagement and support. When the lights go out- we are inviting to sleep to happen- close our eyes, focus on our breathing, and welcome sleep as a friend. Self directed breathing or body scan exercises may be helpful for your child to do themselves when lights go out.



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**How can your child learn to sleep on their own at bedtime and overnight?**

**Interventions are only effective when coupled with the preceding recommendations and require implementation at both bedtime and overnight as necessary**

The stay and support staged based approach

- Suitable for parents who are currently staying with their child or keep being called back or for the child who routinely gets out of bed. Allows for parents to make the changes such as removing drinks, “extras”, holding hands, laying with their child, establishing sleep in a bed rather than sofa. Parents are encouraged to sit on the floor beside the bed and to physically, verbally, emotionally support their child through the changes and then moving through positions for example nights 1-7 beside the bed , nights 8-11 mid-room, 11-14 door-frame and 15+ into hallway until your child is going to sleep without a parent present.
- Important consideration to boundaries and loving limit setting as well as adjusting bedtime so that they can get to sleep with 10-40 minutes of lights out.
- Interventions are required to be repeated overnight to address frequent night waking/early morning waking/ bed-swapping etc



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## **How can your child learn to sleep on their own at bedtime and overnight?**

### Checking-in

- Leaving and returning on a paced time-basis to reassure and affirm your child with the aim of discontinuing the return visits as they become more secure in the overall context of their sleep. Ultimately allowing your child to get to sleep themselves.



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**Additionally:** It will take time to establish new concepts and ways of being in your house. It will be necessary to continually review and adjust. Keeping a sleep journal can help identify what is working and what is not. Being kind to yourself, being patient and confident will help you to be predictable and continually encourage nourishing sleep for your family.

Continue to be positive about sleep, we want our children to *want* to sleep and to love and welcome it. To foster a positive relationship with both sleep and within themselves as individuals. This can mean a lot of patience on your part, resist the urge to use punishment or rewards or restrictions. Open communication and the ongoing joint efforts to create the right emotional and environmental temperature for sleep is the goal.

Extra issues occur when we have more than one child and we have a competition of needs and when we are parenting on our own or due to work commitments there is less support. We are doing our best and that is all we can do.....and our children will too. See additional resources below.



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## Breathing Awareness Exercise

- Lie down on your back with your arms relaxed by your sides. Take a few seconds to get comfortable.
- Bring your awareness to your breathing. Can you feel your breath coming in and going out?
- There's no right way to breathe. Just relax and breathe normally.
- Try to imagine the air is coming from far away, and you blow it out to a distant place.
- You might also say the words 'in' and 'out' in your mind to match your breathing. Or perhaps think of the word 'relax' on each out breath.
- Concentrate on your chest rising and falling – can you feel it? few minutes or until you feel too sleepy to continue.
- Can you taste or smell the air as you breathe in? Is it cool or warm?
- Your mind will probably wander at some point, and thoughts may arise.
- Don't worry if you have thoughts. Acknowledge them, and then gently bring your focus back to your breathing.
- As you continue breathing, feel your body gently sink into your mattress little by little.
- You can do this breathing exercise any time you feel the need to during the day. Just 5 minutes can help, but you might like to build up to 20 minutes over time.
- And if you do it in bed, you can either do it for a few minutes or until you feel too sleepy to continue.



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## Body Scan Exercise

- Lie down and get yourself comfortable.
- Imagine your mind leaving your head, and travelling through your body to one of your feet.
- How does your foot feel? Is it relaxed, tense or sore? Is it hot or cold?
- Don't make any judgments on how it feels – simply scan and observe how you feel.
- Imagine your toe and foot muscles tightening, and relaxing again.
- Then take your mind up to your calf, knee and thigh.
- Stop in each body part to repeat the scanning, muscle tensing and relaxing.
- Repeat the exercise with your other leg.
- Move to a hand and work your way up both arms.
- Scan, tense and relax your back, stomach, chest, shoulders and face.
- You can either imagine your muscles tensing and relaxing, or physically tense and relax them – do what feels best.
- You'll know it's starting to work when your limbs begin to feel heavy and you're happy to sink comfortably into your mattress.
- You might find your mind wanders at times. Acknowledge any thoughts that arise in a positive way, but bring your mind gently back to the exercise.
- Combining these two exercises can be even better – try doing one followed by the other.



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## **Sleep Super Foods:**

- The banana. The non medical equivalent to a sleeping pill; containing the sleep hormone melatonin and relaxing chemical serotonin and also magnesium, that helps to relax the muscles.
- Dairy products. Milk, cottage cheese, yoghurt and cheese are all good sources of tryptophan that helps to make serotonin; which makes us feel sleepy. Also, dairy contains calcium which helps the body to process the tryptophan and produce a second sleep inducing neurotransmitter; melatonin.
- Oatmeal. Oats are a rich source of melatonin and it's filling too.
- Honey. A spoon of honey in milk is an age old remedy for insomnia. Too much sugar is stimulating, but a little glucose signals to your brain to turn off orexin, which is a neurotransmitter linked to alertness.
- Whole-wheat bread. A slice of brown bread toast with a drink of milk and honey, delicious, but also useful. This will release insulin which enables the tryptophan (makes us sleepy), to get to the brain, where it is converted to serotonin-the sleep inducing hormone, which in turn lets the body know..It's sleepy time.



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## Sleep Super Foods:

- Some seeds-flaxseed, jujube seeds and chia seeds can have a calming and sedative effect.
- Almonds are another sleep inducing food-you can get them ground or whole. They contain both tryptophan and also magnesium that helps to relax muscles.
- The potato. A small baked potato won't send your GI tract into overload; it will clear away acids that can inhibit our sleepy friend tryptophan in order to make way for restful sleep.
- Turkey, probably the best source of tryptophan. Put a slice of turkey on some wholegrain bread and you have one of the best sleep enhancing foods that you will use.
- Lettuce has a great reputation for promoting healthy sleep, There is an opium-related quality to lettuce.



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