

What is Sleep?

Sleep is -

- a natural behaviour - sleep is part of everyone's life. Eventually no matter how hard we fight it we will want to sleep for at least part of every 24 hours.
- a reversible state of reduced awareness - to our environment and surroundings.
- dynamic - we do not turn off completely during sleep. There are lots of important processes occurring during sleep that are vital to our existence.

All animals sleep in response to natural rhythms. Human beings are the only animals that deliberately change the amount of sleep they have and their sleep patterns. Our sleep is getting worse in the 21st century due to our 24/7 lifestyles.

What does sleep look like?

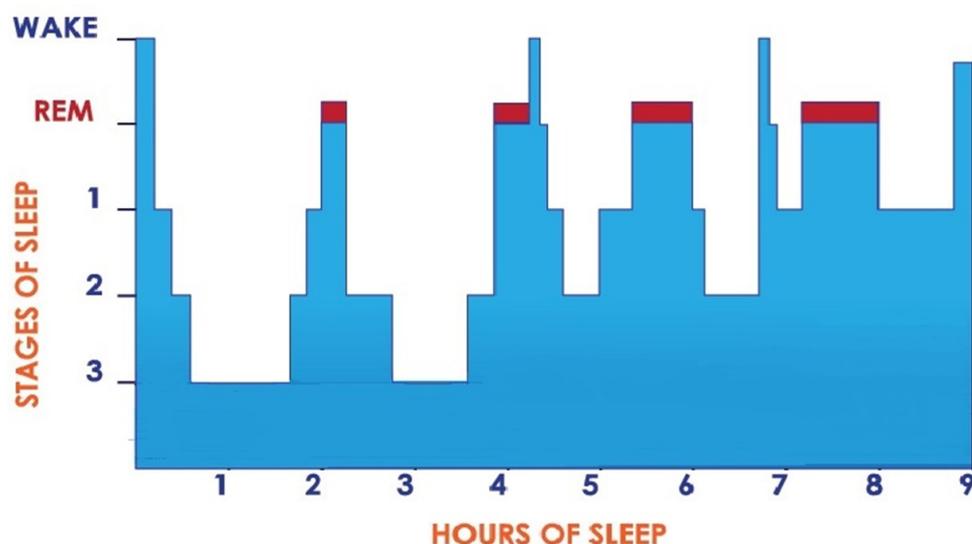
Sleep patterns are shown as hypnograms - a hypnogram shows what our sleep looks like and the different types of sleep being experienced. The hypnogram below is one for a teenager sleeping a full 9 hours.

It is important to know that our bodies and brains are doing very specific things at different times during the sleep cycle. Each cycle is comprised of both non-REM and REM sleep.

During non-REM sleep - shown in blue, even though at times we may be in our deepest sleep, our bodies will still be working hard releasing hormones and renewing and repairing tissues.

REM sleep - shown in red, happens increasingly through the night. This is when we do our memory consolidation and is often when we dream.

At various points during the sleep cycle we may wake. This may only be for the briefest moment and we may not remember in the morning.



The Body Clock

Virtually every animal has a body clock that governs their circadian rhythm -

Our body clocks are affected by external factors which, in turn, affect our internal rhythm, such as light, temperature, meal times and social activities. These are all important for keeping our body clock in rhythm and letting our body know when it is time to do different functions such as sleep, eat or be alert and able to concentrate.

It is as a result of our circadian rhythm that we are most likely to want to sleep during the dark hours of the late evening and early morning.

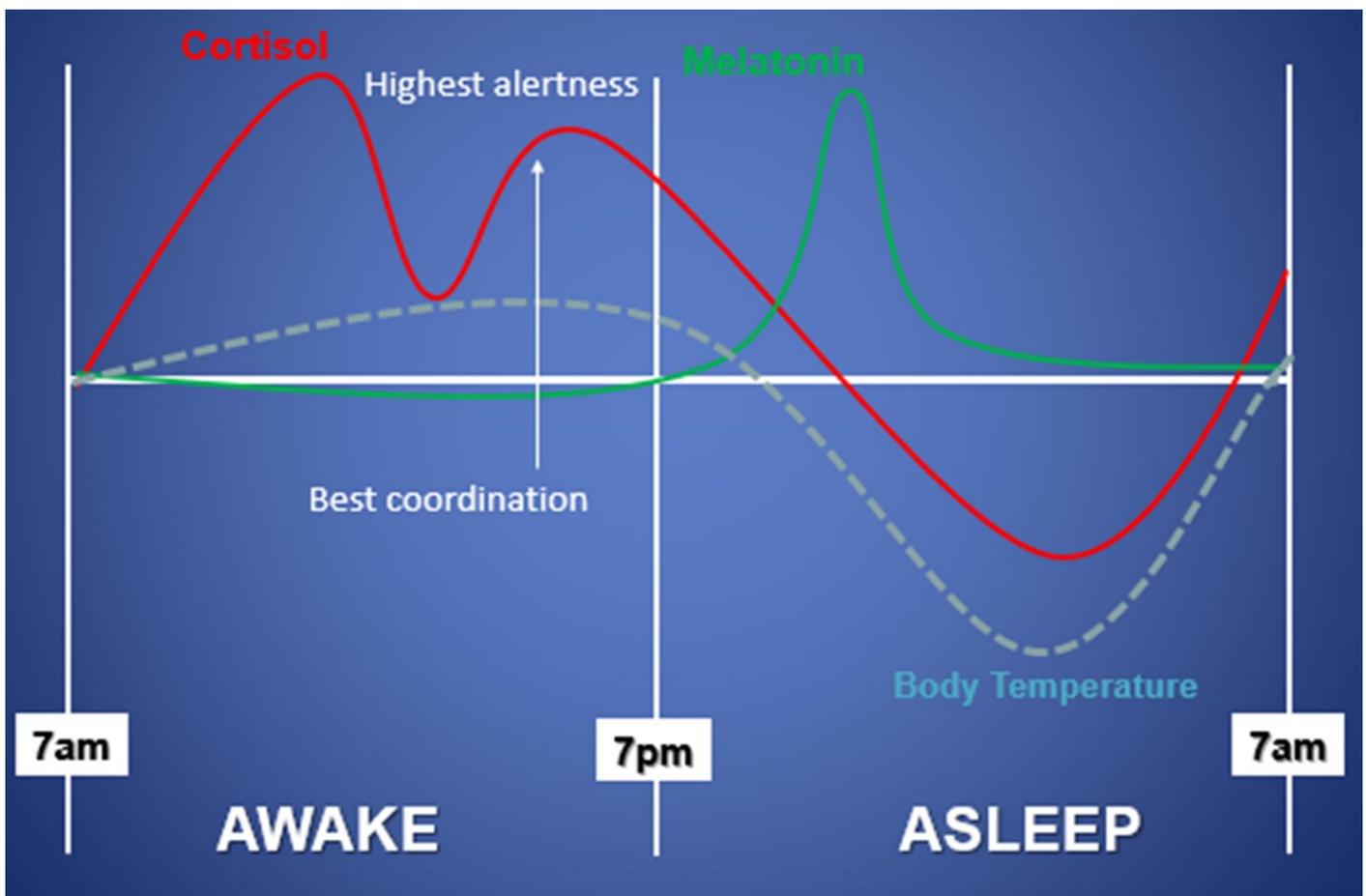
Our body clock manages:

- Release of certain hormones
- Sleep
- Kidney function
- Temperature
- Muscle response

Our body clock prompts the release of two hormones which affect our sleep:

Melatonin - often called the 'sleepy hormone' because its release is one of the triggers that tells the body that it is time to prepare for sleep. Melatonin is released in response to darkness.

Cortisol - often called the 'stress hormone' because it wakes us up in the morning. Our bodies also create cortisol when we are stimulated. This can be from stress, anxiety or when we are excited. For children, lots of activities can create cortisol in the body such as playing with friends, watching TV or exercising. If we have too much cortisol in our bodies before bed, it will stop us falling asleep.



Disruption to the body clock, or the jet lag effect, is created when a change occurs to your body's settling and waking times. This can often happen at the weekend if an individual goes to bed much later on a Friday and Saturday night and rises much later on a Saturday and Sunday.

The result can be equivalent to travelling across a different time zone and forcing your body to wake and sleep at a different time than your body clock expects. This change occurs again come Monday morning when the individual's waking and settling times are brought forward.



This jet lag effect can make us feel groggy and tired during the day. Mental and physical performance will also be reduced.

Impacts on your sleep-

- **difficulty falling asleep** - by trying to sleep when your body clock is not expecting to, and it is still set on 'wake'. This can be especially pronounced on Sunday night and continue for a few days until your body clock resets itself.
- **reduced sleep time** - changes in your body clock can disrupt sleep and lead to reduced sleep. If it takes you longer to fall asleep, but you have to wake at a set time, it will reduce your sleep time, leading to sleep deprivation and associated health problems.
- **difficulty waking in the morning** - if your body clock is set to 'sleep' and you are forcing it to wake up in order to get ready for school or work, you may feel groggy, have a headache, feel easily upset or angry, and nauseous.

These effects may last for a few days before your body clock resets itself. If an individual changes their sleeping and waking times every weekend, it means that they may experience prolonged sleep disruption and sleep deprivation due to constant jet lag effect. This may result in long-term mental and physical health problems.

Sleep and Wellbeing

As your child grows and goes through the stages of development, it is crucial they are getting enough sleep to support them. Sleep not only refreshes your child's mind and body but also enhances their body functions.

Benefits of a Good Night's Sleep For Your Child

- Boosts immunity
- Improves memory
- Assists learning
- Maintains physical and emotional health
- Helps the body to repair itself
- Promotes growth
- Supports a healthy weight

What might be stopping your child from sleeping?

Their Routine – To make sure their bodies are creating melatonin and reducing cortisol at the right times, children need to have a consistent routine which signals to their body that it's time to sleep. Changes in bedtime routine or exciting activities just before bed can stop children from sleeping.

- ⇒ Make sure your child has time to go outside and be active during the day, ideally before dinner.
- ⇒ Try to avoid letting your child nap after 2pm. This includes falling asleep on the bus or in front of the TV. Children over the developmental age of 3 should not need to nap if they are sleeping well at night.
- ⇒ Avoid stimulating activities which are loud or energetic in the hour before bed. Instead encourage your child to have quiet play, such as colouring or jigsaw puzzles.
- ⇒ Ensure your child is going to bed and waking up at the same time every day – even at the weekends!

Their Environment – Even if children play in their bedrooms during the day, it's important that bedrooms become quiet, calm and dark before bedtime. Any stimulation before bed may keep your child awake. This could include sleeping in the same room as siblings, or even anxiety about being left alone in their bedroom.

- ⇒ Where possible, try to ensure your child has a quiet, calm, dark bedroom to sleep in.
- ⇒ Make sure your child feels safe in their bedroom. If they do not, you may want to ask them what you can do to make the bedroom feel safer for them.



Lights & Electronics – If your child is interacting with anything that produces light before bed, this could be keeping them awake. While phones, TVs or tablets may seem to calm children down, the blue light emitted by screens is likely to prevent their bodies creating melatonin and the interaction can increase cortisol levels.

- ⇒ Avoid activities which use screens an hour before bed and keep screens out of their bedroom.

Their Diet – Without regular meal times, your child's body clock may struggle to regulate their sleep consistently. Stimulants such as sugar and caffeine, especially in the evening will prevent sleep. Snacks less than an hour before bedtime may also disrupt their sleep.

- ⇒ Make sure your child doesn't have any stimulating food or drinks including chocolate, coffee, tea, or cola in the late afternoon or evening.
- ⇒ If they want a snack after dinnertime, try milk, toast or a banana, and have this is at least an hour before bed.

Anxiety – There's lots of things that may make your child anxious and this could create cortisol in their bodies before bed. Some children may be anxious about being left alone in their bedroom, others may be anxious about not being able to fall asleep. Encourage your child to express how they are feeling and talk about what is making them feel this way. Do this earlier in the day, so they don't bring those feelings to the bedroom.

- ⇒ Find ways to relax together using relaxation techniques, yoga or mindfulness.
- ⇒ Try to stay calm around bedtime to support your child to feel the same.

Changes In Their Life – This could be things such as moving schools, the arrival of a new sibling or parents separating. Big changes in life may make it hard for your child to relax before bed or may make their routine inconsistent, which could disrupt their body clock.

- ⇒ Do what you can to give your child as much consistency as possible.
- ⇒ Make sure they feel comfortable talking about their thoughts and feelings during transitional times.



Good Bedtime Practice

Example of a good bedtime routine for a 5/6 year old who is getting up around 7am. This can be used as a rough guide, but you might want to adjust timings and activities to suit your family. It may be useful to print out a routine for you and your child to follow every day. Remember that consistency is key!

Time	Activity
5.30pm	Evening meal
6.00pm	Play time
7.00pm	Quiet play e.g. Jigsaw puzzles, train set Snack
7.20pm	Relaxing bath
7.40pm	Pyjamas, teeth cleaned and into bed
7.45pm	A bedtime story
7.55pm	Cuddles from family member
8.00pm	Leave to settle

Average Sleep Needs

Age	Recommended
Toddlers <i>1-2 years</i>	11 to 14 hours
Preschoolers <i>3-5 years</i>	10 to 13 hours
School-aged children <i>6-13 years</i>	9 to 11 hours
Teenagers <i>14-17 years</i>	8 to 10 hours
Young adults <i>18-25 years</i>	7 to 9 hours

Based on recommendations by the National Sleep Foundation

Before bed:

- Avoid nap after 2pm
- Quiet play
- Avoid sweets/ biscuits, fizzy drinks, tea, coffee, hot chocolate
- Routine should start no more than 1 hour before sleep time
- No TV etc. an hour before bed
- Snack if required, e.g. toast, cereal, milky drink

Bedtime:

- Consistent bedtime and wakening
- Relaxing bath, brush teeth, into bedroom
- Lights out
- Carry out steps in same order each night
- Story - not too exciting
- Lots of praise in the morning

Crucial elements:

- Clear messages
- Timing
- Consistency
- Diet
- Re-enforcement
- Sleep Hygiene

Co-sleeping

One of the main hurdles for a good night's sleep can be getting your child to sleep in their own bed. Children can feel nervous about being left in their bedroom or may wake up in the middle of the night and want to see their parent or carer. Because of this, some may choose to sleep with their child, either in the child's or their own bed. While co-sleeping may seem like a good short-term solution, for most children, sleeping alone is an important part of becoming independent and many parents and carers will want their privacy too!

There are a couple of methods you can use to encourage your child to sleep independently:

- If possible, encourage your child to settle in their own bed and leave before they fall asleep.
- Be a "Boring Parent" before bed and throughout the night. By keeping your voice low and not engaging in conversation, you show your child that they won't get the attention they are expecting.
- Use Transitional Objects. Explain to your child that you are leaving an object, such as a stuffed toy, in your child's room to watch over them. This object gives them a feeling of safety even when you are not around.
- If your child struggles to settle alone, use the Disappearing Chair, or graduated withdrawal method. This is often useful when there is anxiety around bedtime and a child wants a parent/carer in the room with them while they sleep. It works in stages:
 - 1) Sat by (not on) the bed, maintaining physical contact (hand on hand, arm etc.) until child falls asleep. Contact should be still, no stroking.
 - 2) Sat by the bed, not making any physical contact.
 - 3) Move the chair away from the bed, but stay in the room.
 - 4) Sit in the chair by the door.
 - 5) Chair is outside of the room, by the door.
 - 6) Child settles in room alone and you get on with your evening.

Whichever stage a parent/carer is at, if a child wakes in the night, they must re-settle at the same point i.e. if the chair is by the door, sit by the door again, don't go back to sitting by the bed.

You may need to spend a few nights or more at each stage: once your child is happy with one stage you can move on to the next the following night. The time that it takes to graduate from one stage to the next depends on each child and family. Some will progress after a few days, others weeks.