



# Sleep Toolkit for 13 to 18 years

**Sleep during adolescence**

Guidance and support aimed at young people

# Sleep during adolescence – 13 years and over

## We all do it – but how much do you know about what happens when we sleep?

### Why is sleep important?

Getting the right amount of sleep at night is important for all sorts of reasons. But don't just take our word for it, the crucial factor in developing a positive sleep routine is that you feel motivated and see a personal benefit to doing so. Below are some of the key positive impacts of getting a good night's sleep to help kick start your motivation:

- **Improved Memory:** A process called consolidation, which occurs whilst you're asleep, helps to strengthen memories and consolidate skills learned while you were awake. Whether you're learning a new language, sport or subject in school, sleep plays a vital part in speeding up that learning process.
- **Boost Creativity:** As well as consolidating and strengthening memories, a good night's sleep can allow your brain to re-structure and essentially make sense of ideas, problems and new concepts you might have learned during the day. This can help us to wake up feeling more creative and better able to take on anything that might have been causing us confusion the day before.
- **Improve Athletic Ability:** Studies have found that a variety of sports people can improve their athletic performance and increase stamina by getting a good night's sleep every night.
- **Improved Attention:** Some studies have shown that young people who don't get enough sleep at night on a recurring basis may not do as well at school and find it harder to concentrate and learn in school/college. On the plus side, those who have a positive sleeping pattern should experience improved attention and ability to learn new information.
- **Reduced Stress:** Sleep and stress levels are really closely linked, and whilst a lack of sleep can cause increased stress levels the good news is that the equation works the other way – therefore the more sleep you get (preferably between 8-10 hours a night) the lower your stress levels could become. Sleep also helps to improve emotional stability which can in turn help to reduce the risks of depression.
- **Better Skin:** Not only does a reduction of the hormone cortisol help to improve our stress levels, it can also have the knock-on effect of improving our skin health and such conditions as acne, psoriasis and eczema.
- **Stronger Immune System:** Getting a good night's sleep won't prevent you from ever getting ill, but it will certainly help. Regularly lacking in sleep can cause your immune system to be less effective, which makes you more likely to catch infections such as colds and flu.

Source: *National Sleep Foundation*

# Stages of Sleep

There are different stages of sleep that are divided into Non-Rapid Eye Movement (Non-REM, no dreams) and Rapid Eye Movement (REM) sleep.

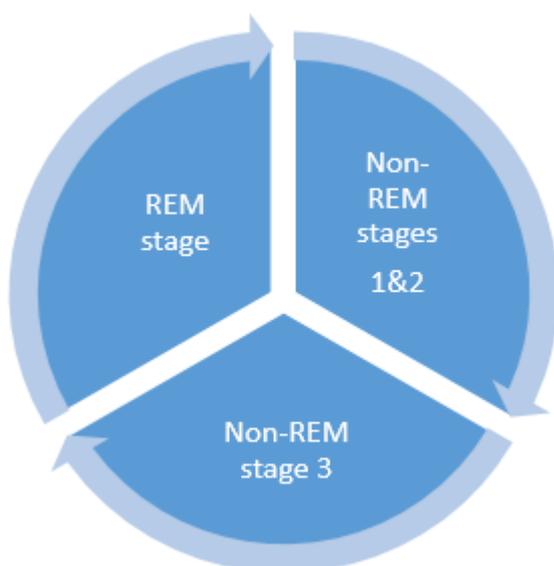
Non-REM Stage 1. Light Sleep - think about the time when you are in class and your eyes fight to stay open. Your muscles begin to relax and the world around you starts to fade away as your brain activity slows down. You can be easily woken up from this stage or you might notice that you jump and wake yourself up when in this stage.

Non-REM Stage 2. Beginning of Sleep - still quite a light sleep, but your body is preparing for deeper sleep. (Normally the first 15-30 minutes of sleep). Your muscles continue to relax and your brain activity slows, but if the phone rings, the TV is too loud or someone calls your name you are likely to still hear it and wake up.

Non-REM Stage 3. Slow Wave Sleep - (Normally about 45 mins after you have fallen asleep). This is most commonly known as “deep sleep”. Your brain activity has slowed considerably and your muscles are relaxed. It will be harder to wake up from this stage of sleep – you may feel disorientated and groggy if woken. This stage of sleep is when people are most likely to suffer from sleep related breathing disorder such as sleep apnoea.

REM stage. This is when you dream and when your brain is most active but your muscles are at their most relaxed. In fact, most of your muscles (except heart and lungs) are paralyzed during this stage of sleep. Sometimes if people are woken abruptly from this sleep it may take a few seconds for them to be able to move – this is known as sleep paralysis. This is nothing to worry about. REM sleep is known to improve brain functioning and is when long term memories are created.

Figure 1



## Did you know.....?

- You move backwards and forwards between these stages of sleep during the night? Deep sleep is towards the beginning of the night and REM sleep towards the end.
- We tend to sleep for approximately 90 minutes and then partially wake up – if nothing around us has changed we usually fall back into deeper sleep without noticing. However, if things have changed (like your duvet falling off!) then this is when we wake up. It means that it is normal to wake up every hour or so after a deep sleep, e.g. rub our eyes, change position) but we often drift back to sleep without noticing.
- The 90 minute cycle may also make it harder for us to fall asleep if we push through feelings of extreme tiredness to watch that final few minutes of our favourite show and then try to go to bed, as you may miss the peak of your sleepiness for that cycle. Sometimes it can be more helpful to do something else such as read a book before trying to fall asleep again. For example:

# Sleep Do's and Don'ts for teens

Sleep is way more than just something boring we have to do at night because there's nothing else going on. It's very important and has as much of an impact on our mental and physical health as the things we do when we're awake. However, there's a lot of advice out there around what we should and shouldn't do to get a good night's sleep and it can be difficult to know what to listen to and what to ignore. So we've put together a list of do's and don'ts specifically for teenagers to help aid a restful slumber – But remember nobody's perfect and there's isn't one winning formula to nailing your night time routine. Just keep experimenting and you'll be sure to experience the benefits sooner or later.

Table 1

<b>DO's</b>	<b>DON'Ts</b>
<p>Do separate your bedroom from your work space. As a general rule it is best to restrict your bedroom to sleeping only. When you live in a busy household your bedroom can be a nice quiet haven to get work done in, but this can make it much harder to switch off and forget about work when it does come to bedtime.</p>	<p>Don't drink caffeinated drinks less than 6 hours before going to bed. Caffeine found in such drinks as tea, coffee, green tea and energy drinks is a stimulant. This means it causes us to feel more alert, awake and sometimes even jittery than we would normally and if it doesn't have time to flush out of our body before bedtime it will make it much harder to get a good night's sleep.</p>
<p>Do Try using guided relaxations and breathing techniques to help you get to sleep. You can find loads of these on YouTube and there are also a number of apps that can help support a good night's sleep. So long as you listen to the content and don't look at the bright screen you're all good.</p>	<p>Don't use electrical devices with back-lit screens before bed. This is because the "blue" light emitted by devices such as smart phones, MP3 players, Kindles and computers supresses our melatonin levels (the sleep hormone) meaning we feel less sleepy at bed time, get a poorer quality of sleep when we do nod off, and may wake up feeling sleepier and less motivated to get up.</p>

<p>Do nap strategically – whilst a short nap (no longer than 20 minutes) in the early afternoon can boost our energy levels to get through the afternoon, sleeping for long chunks in the daytime, or getting too much sleep (over 8-10 hours a night) can mess with our natural circadian rhythms and make it much harder for us to get to sleep at night time.</p>	<p>Don't keep your mobile phone by your bed. Not only is the blue light alerting, but the sound of message alerts going off and the temptation to look at them can cause continued distraction just as we're about to drop off. If you use your phone as an alarm clock consider investing in a separate alarm (preferably one without a lit up screen) to ensure you wake up on time.</p>
<p>Do avoid too much background noise. However, some people find that a bit of background sound or white noise (such as the TV, radio or an electric fan) can drown out other noises that can be more distracting. However leaving the TV, radio etc. on all night can interrupt our deeper sleep cycles, so if you can it's best to set a timer to make sure such devices switch off once you're asleep.</p>	<p>Don't underestimate the importance of a stable sleep/wake routine. Having a good routine around when you wake up and go to sleep can really help your body prepare for both events. This will ensure you are much more likely to be able to fall asleep quickly and peacefully, and feel refreshed when you wake up in the morning.</p>

*Source: The above table uses sources taken from websites and books listed in the "[Help and information](#)" section of this document.*

# Substance use and sleep

## Alcohol and Sleep

Alcohol often is thought of as a sedative or calming drug. While alcohol may induce sleep, the quality of sleep is often fragmented during the second half of the sleep period. Alcohol increases the number of times you awaken in the latter half of the night, when the alcohol's relaxing effect wears off. It prevents you from getting the deep sleep and [REM sleep](#) you need, because alcohol keeps you in the lighter [stages of sleep](#). With continued consumption just before [bedtime](#), alcohol's sleep-inducing effect may decrease as its disruptive effects continue or increase. The sleep disruption resulting from alcohol use may lead to daytime [fatigue](#) and sleepiness.

## Stimulants and sleep

Stimulants are substances such as caffeine, cocaine and amphetamine that have an effect on the central nervous system and body, leading to increased alertness and a sense of being very awake. These substances can prevent the onset of sleep and keep people alert well into the next morning. The result is a sleep deficit whereby users feel exhausted and low in mood and energy when the effects have worn off. The more stimulants that are used the more difficult it will be to have a regular sleep pattern contributing to feelings of anxiety and depression.

## Cannabis and sleep

Cannabis users report that they feel more tired and sleepy after use and many use it to fall asleep. Research has identified that different strains and levels of use have different effects on the various stages of sleep with some being longer or shorter. In stopping smoking, cannabis users may find that they need time to adjust their sleep patterns; an example of this is an increase in dreaming or insomnia.

## Vicious cycle of insomnia and substance use

Regardless of the type of substance used to self-medicate insomnia, it will generate a cycle that can be difficult to break. For example, someone may drink alcohol to fall asleep more readily, but drinking also disrupts sleep. As a result more alcohol is drunk in the hope of finding relief. If stimulant drugs are used, they will reduce the need for sleep. However, the body still needs to rest, so it will start to slow down. When that occurs it's easy/likely to reach for more drugs in order to stay alert or awake.

Remember natural sleep patterns are optimal so where insomnia is a problem it is always better to use approaches that don't involve self-medication.

# Help and information

## Getting Help:

If your sleep-wake cycle is causing you concern it's a good idea to speak to your parents and/or your GP. Your school nurse should also be able to help and can signpost you to further support options. But just in case, we've compiled a list of different resources that might help you on your way:

## Organisations and Websites:

Sometimes, if our sleep is troubling us, this can be enough to impact on our mental health. It was also be a sign that perhaps something else in life is bothering us that needs addressing. Either way the following organisations might be worth contacting to see what they can offer:

- **Mind You** – a website for young people in South Gloucestershire on all sorts of mental health and wellbeing topics. <http://sites.southglos.gov.uk/mind-you/>
- **Kooth** – Free, safe and anonymous online support and counselling for young people. For more info go to: <https://kooth.com/index.html>
- **Off the Record** – As well as a comprehensive website with tips and tricks to support all areas of mental health OTR offer services ranging from health promotion groups like the Resilience Lab, to 1:1 therapies such as Art Therapy and Counselling. To find out more and to sign up online just go to: <http://www.otrbristol.org.uk>
- **Sleep Council** – This website is packed full of info and advice on how to help you get a good night's sleep, including blogs posts and ideas for creating the perfect sleep environment: <https://sleepcouncil.org.uk/>
- **Teen Sleep** – also offers advice on how to create the perfect, sleep enhancing bedroom as well as facts and figures on why sleep is so important: <http://www.teen-sleep.org.uk/>

## Apps:

All of these apps can be accessed for free on iTunes or Google play– extra features may be available at a cost but the free basics are usually good enough. If you do feel tempted to pay for more features we would always advise you discuss this with your parents first:

- **Aura** – Aura provides you with daily short (3 minute) meditations to help you relax and unwind. You can also choose to receive mindful breathing breaks throughout the day which last just a few seconds and could support you in feeling calm and ready for a good night's sleep when the time comes.
- **Calm** – Calm is specifically designed to help lull you off to sleep, with specially designed stories (you're never too old for a good story!) and a Breathe Bubble that guides your breath so as to support your mood and feelings of relaxation.
- **Simple Habit** – This app provides meditations for loads of different situations and moods so you can match them to suit exactly how you're feeling! Quick five-minute tracks will talk you through everything from getting ready for a test, riding on the bus, and of course getting a good night's sleep.
- **Sleep Cycle** – This is one of many apps that can track your sleep patterns so you can work out how much sleep you're getting each night and what quality it is. It also has an alarm which aims to wake you up during your light sleep stage which should help you to feel more rested and ready to face the day.



*“How to Sleep Well and Stay Healthy: A Guide for Teenagers”*

A free downloadable iBook produced by Health Insights 4 U

## Sleep diary:

If you don't have a smart phone, or (as advised) would rather not keep your phone by your bed

then a good old fashioned paper sleep diary can be the way to go. You can create your own by just noting down each morning what time you went to bed, what time you got up, how much sleep you had in that time and what quality you feel it was. But if you'd like to print out an existing template then try this: <https://www.nhs.uk/Livewell/insomnia/Documents/sleepdiary.pdf>

# What you say about your sleep

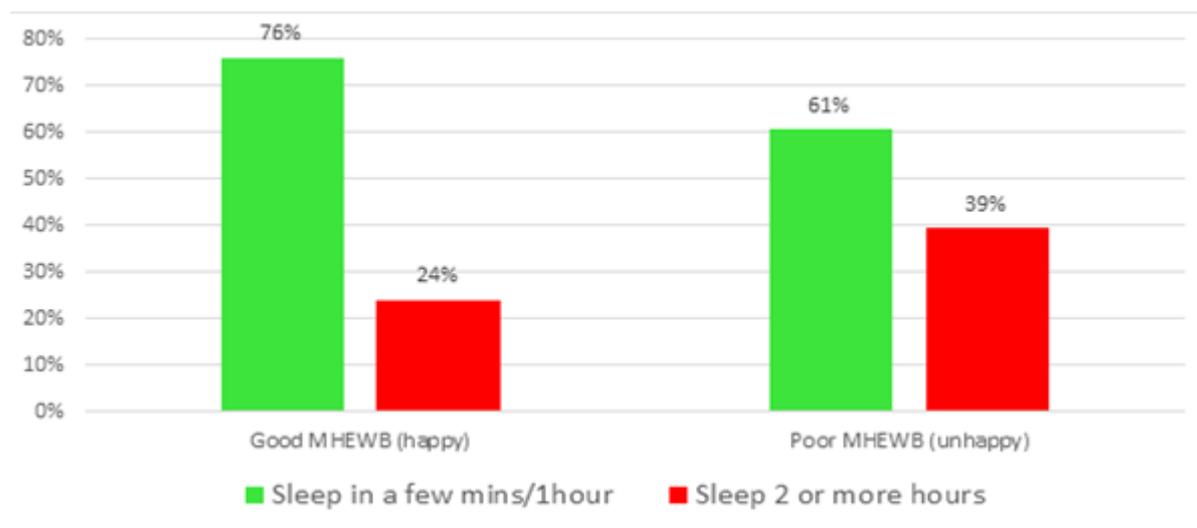
The following data are from the most recent South Gloucestershire health and wellbeing online pupil survey[1].

- 31% of Y6 pupils (10/11 years old) report regularly going to bed at 10pm or later.
- 29% of Y4, 5 & 6 pupils (7-11 years old) report taking 2 or more hours to go to sleep once in bed.
- 31% Y4, 5 & 6 pupils are spending this time watching TV or playing computer games.
- 82% of Y8&10 pupils (13-15 years old) report regularly going to bed at 10pm or later.
- 20% of Y8&10 pupils report being so worried about something quite often/most nights that they cannot sleep at night.

## The effect of sleeping habits on primary and secondary pupils' mental health and emotional wellbeing

Figure 3 highlights how time taken to get to sleep at night impacts on the mental health and emotional wellbeing. Those pupils who report going to sleep in less than one hour after going to bed are more likely to have good mental health and emotional wellbeing than those pupils who take more than 2 hours to go to sleep.

Figure 2



[1] Health and Wellbeing online pupil survey (OPS) summary reports for 2014 and 2017 [accessed here](#)

# Want to know more about sleep? Read on!

## Circadian Rhythm, often called the 'body clock'

We all have a sleep-wake cycle known as the circadian rhythm or body clock which is regulated by light and dark. The rhythms take time to develop in new-borns and it is very normal for infants and young children to wake regularly during the night. By about 6 months most babies have a regular sleep-wake cycle. Putting children to bed at the same time each night and waking them up at the same time each morning, even at weekends, will help to enable a regular sleep-wake cycle. When the hour changes from winter time to summer time some children's sleep-wake cycle goes off track. A child's sleep-wake cycle can be reset by bringing bedtime forward by 15 minutes every three nights until the desired time is reached.

## Melatonin

Melatonin is a hormone that occurs naturally in our body when it gets dark. It helps us sleep. It is a good idea to put your child to bed in a dark environment and dim lights in the run up to bedtime.

Melatonin production is negatively affected by screen activity, like watching a television/iPad or playing computer games. The light from the screen stops melatonin being produced. Avoiding these activities in the hour (or more) leading up to bedtime is a good idea to help the sleep cycle. Some children and those with autistic spectrum disorder may produce less melatonin.

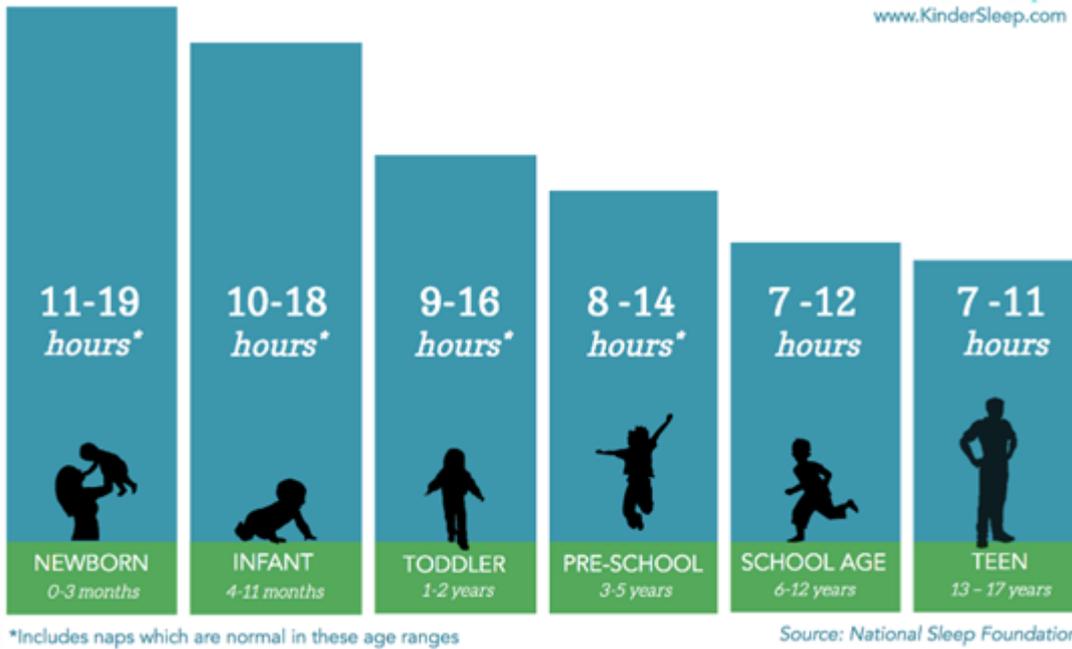
*Source: Sleep Health*

*Foundation <https://sleepfoundation.org/sleep-topics/how-blue-light-affects-kids-sleep>*

## How much sleep is needed? Sleep duration

Sleep needs change as children get older and every human requires a different amount of sleep throughout their life. However, there is a recommended number of hours to aim for:

Figure 3



Research suggests that, in Western societies, many adults and some children and young people are under-sleeping by roughly one hour per night due to lifestyle changes. When accumulated over one week this adds up to a sleep deficit of about one full night.

Source: Royal Society for Public Health (2016) *Waking up to the Benefits of Sleep*, University of Oxford

### Sleep routines, sometimes called ‘sleep hygiene’

#### Daytime activities

What happens in the day can effect sleep: exercise improves sleep onset (how long it takes to fall asleep). Diet during the day can affect sleep. Caffeine blocks the sleep-wake regulation.

#### Sleep Environment

The sleep environment needs to be safe, a comfortable temperature, with space to lie down, low level of noise, low light or darkness and a lack of distractions.

#### Bedtime routines

Routines can teach children to associate a sequence of events e.g. upstairs, bath, brush teeth, PJs, to bed, story time etc. with bedtime and sleep.