

Sleep Toolkit for 13 to 18 years

Sleep during adolescence

Guidance and support aimed at young people



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Sleep during adolescence – 13 years and over

Who has produced this toolkit?

This toolkit was produced in partnership with: School Health Nursing, Sirona care & health, Kings' Forest Primary School, King's Oak Academy Primary School, Off the Record, South Gloucestershire Council - Public Health & Wellbeing, Early Years Team, Educational Psychology, Child and Adolescent Mental Health Service.



South Gloucestershire Sleep Toolkits

There are three other Sleep toolkits, categorised by age group, available on the <u>South</u> <u>Gloucestershire Council website</u>. The three toolkits are:

Early Years – Birth to five years *Childhood* - *Five to 13 years* **Children with Special Educational Need and Disability** – Children with SEND

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 stamina and performance: 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, but 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 - 8 Health Benefits of Sleep | 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.

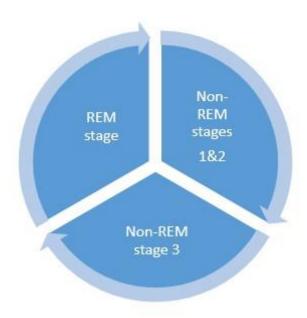
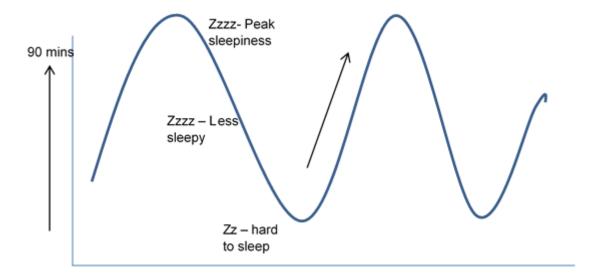


Figure 1: Rapid Eye Movement (REM) stages

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 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 o 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



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.

DO's DON'Ts

Do separate your bedroom from your workspace. As a 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.

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.

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 several 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.

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 bedtime, get a poorer quality of sleep when we do nod off, and may wake up feeling sleepier and less motivated to get up.

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 nighttime.

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 in investing in a separate alarm (preferably one without a lit-up screen) to ensure you wake up on time.

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.

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.

Source: The above table uses sources taken from websites and books listed in the "<u>Help and information</u>" section of this document.

There is this website too - Amazing Top Tips for Teens, take a look by clicking this link <u>Teens & Young People</u> - Teen Sleep Hub

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, including most energy drinks which contain very high levels of caffeine, as well as illegal substances like cocaine and amphetamines. Stimulants have an effect on the central nervous system and body, leading to increased alertness, increased heart rate and blood pressure 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.

Insomnia (not able to sleep) and substance use

Sometimes someone may use a substance to self-medicate for insomnia, but this can lead to a cycle of reliance on a substance to fall asleep or disrupted sleep. For example, using alcohol or cannabis to fall asleep can disrupt deep sleep causing a feeling of sleepiness the following day. Stimulants may then be used to support feeling awake during the day which then impacts on the ability to fall asleep.

A cycle of using a range of different substances to fall asleep and then keep awake is physically and emotionally exhausting and can increase feelings of anxiety, low mood and be overwhelming.

The body and mind need sleep and rest and without it will slow down and make day to day tasks feel harder. Natural sleep patterns are the best option. If insomnia is a problem using

approaches that don't involve substances will provide a better longer-term solution. A range of approaches can be accessed in the Help and Information section.

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 option. 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 can 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.
- Kooth Free, safe and anonymous online support and counselling for young people.
- 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 therapy such as Art Therapy and Counselling.
- <u>The Sleep Charity</u> This is an amazing teen sleep hub, the one stop shop for all you need to know about sleep. If you're looking for advice on how to sleep better, would like tips on tweaking your routine or help to understand the science behind your sleep patterns, you'll find it all here.

Problem Sleeping?

Call the Sleep Charity National Sleep Helpline, open between 7pm and 9pm Mon/Tues/Thurs and 9am until 11am, Mon/Weds. 03303 530 541

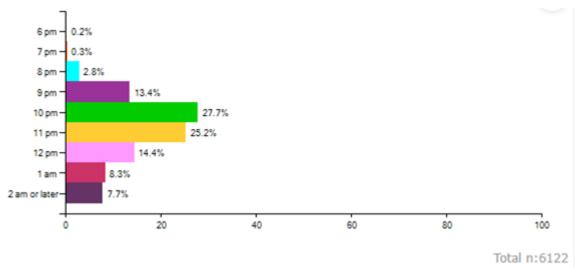
Sleep diary:

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

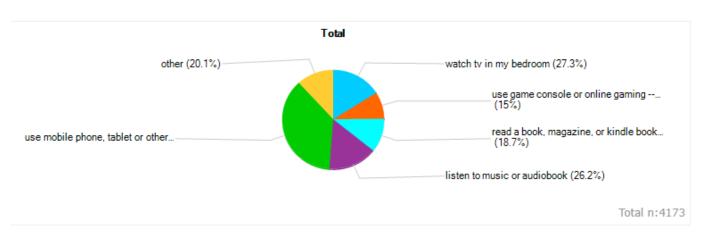
What you say about your sleep

The following data are from the most recent South Gloucestershire health and wellbeing online pupil survey (OPS) 2023 highlighting the views from 6610* pupils age 12 – 17 years:

When asked 'What time (to the nearest hour) did you go to bed last night?' just over half
of pupils responding to this question reported going to bed between 10pm and 11pm.
 14% reported going to bed at6 midnight and a further 16% after 1am or later.



- When asked 'What time (to the nearest hour) did you wake up this morning?' 57% reported waking at 7am and 22% at 6am.
- When asked 'What did you do between going to bed and going to sleep?', almost half reported using mobile phones, tablet or other devise.



• When asked 'In the past year, how often have you been so worried about something you cannot sleep at night?', just over half answered 'never' or 'not often'. 28% answered 'quite often' (e.g., weekly)'or 'most nights'.

^{*}Not all pupils answered all questions and response numbers vary.

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.

During teenage years the circadian clock can get a bit messed up! You might not feel tired as it gets dark and you may not wake up as it gets light – like you did when you were younger. You're not lazy. You're just a teen! You can't help that you release melatonin later in the evening, so you feel awake long past bedtime, and that when your alarm goes off for school or college, you just want to crawl back under the duvet. Its called Delayed Sleep Phase.

Melatonin

Melatonin is a naturally occurring hormone that is produced by the brain, and it plays an important role in supporting the body's circadian rhythm and promoting restful sleep.

Levels of melatonin rise at nighttime making you feel sleepy and drop at dawn causing you to wake, which is why it is sometimes called 'the hormone of darkness'.

The best way of ensuring optimal melatonin production is for your child to sleep in as dark an environment as possible. Use heavy lined curtains and/or blackout blinds to block out external light.

In the run up to bedtime, dim the lights and avoid screen time. Melatonin production is interfered with by screen activities for example watching television or playing on a computer. The light from the screens will stop the melatonin being produced as effectively therefore it is best to avoid these activities in the hour leading up to bedtime.

Source: Melatonin - The Sleep Charity

How much sleep is needed? Sleep duration

The amount of sleep needed gradually decreases from infancy to adulthood. Every child is different but as a general rule of thumb:

- newborn babies may sleep up to 19 hours per day
- toddlers will usually sleep around 11-14 hours sleep (including daytime naps)
- school-age children will usually sleep around 9-11 hours
- An adolescent 8-10 hours but this could be as little as 7 hours or as much as 11 hours

Sleep routines, sometimes called 'sleep hygiene'

Daytime activities

What happens in the day can affect 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

Your 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 us to associate a sequence of events with going to sleep.