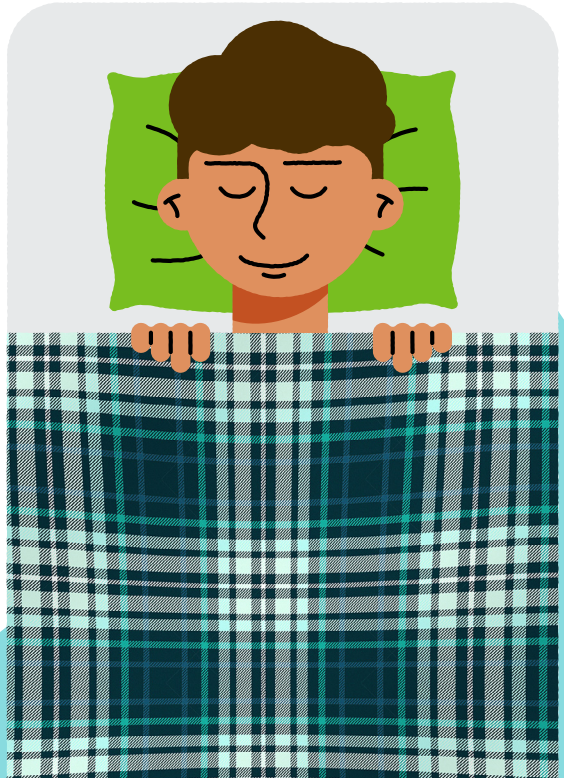
mythbuster

headspace
National Youth Mental Health Foundation

sleep and young people

putting the myths to rest

Sleep is really important for health and wellbeing. This mythbuster explores some common myths around sleep, using research evidence. It also provides an overview of sleep difficulties experienced by young people. This resource is intended for young people, their families and friends, and health professionals.

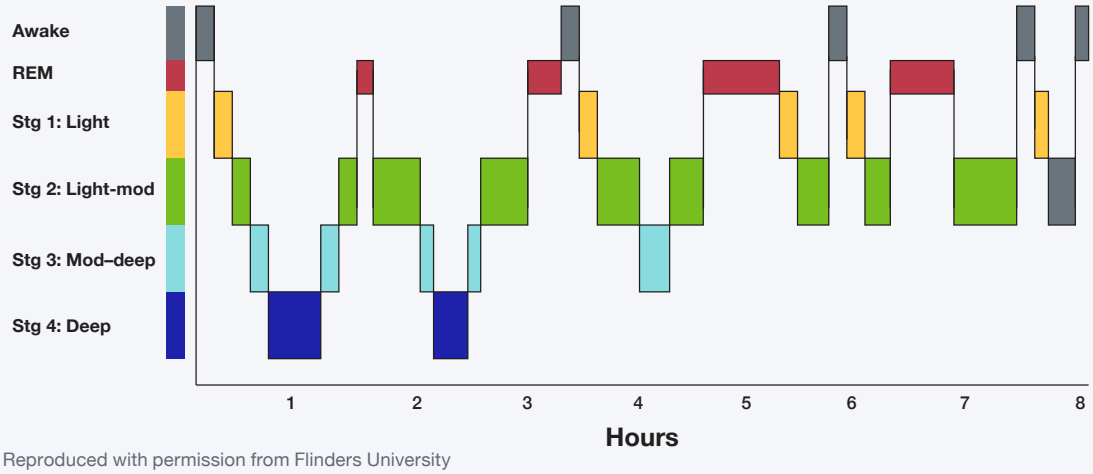


Why do we sleep?

We tend to think of sleep as a time when the mind and body shut down, but they are actually performing many vital tasks during sleep.

Two biological processes cause us to sleep: sleep pressure and our body clock (circadian rhythm). Sleep pressure is a biological response that makes us want to go to sleep. From the moment we wake up, sleep pressure begins to gradually increase the longer we are awake.[1]

Our body clock is on roughly a 24-hour cycle. This cycle is coordinated by the pathways from our eyes to our brain that detect light and dark (i.e. day and night). In the evening, our bodies release the hormone melatonin, which prepares the body for sleep. We also experience a small drop in body temperature.[2] Both of these help to keep us asleep across the night. The way that sleep pressure and the body clock work together means that sleeping at night and being awake during the day promotes both optimal sleep and functioning.[3]



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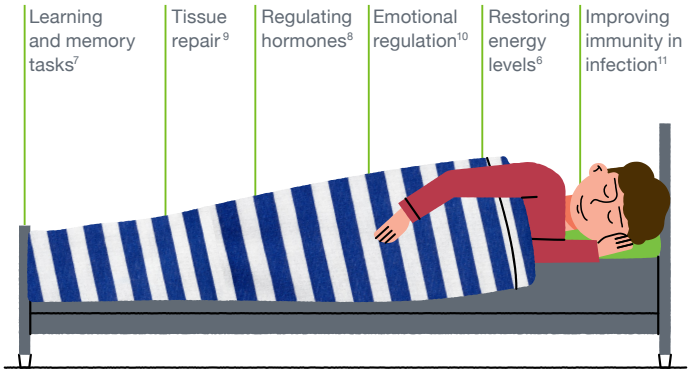
What happens when we sleep?

We cycle through two types of sleep each night: non-rapid eye movement (N-REM) and rapid eye movement (REM).[4] The reason why our sleep is divided into these two separate types is not fully understood, but they appear to provide different functions.[5] As seen in the chart, N-REM sleep has four 'deepening stages' of sleep from Stage 1–4.

In REM sleep, during which we are more likely to experience dreams, our brain is as active as when we are awake. The amount of REM sleep increases in the second half of the sleep period, so 7–9 hours of sleep (or more for teenagers aged 12–17) is ideally needed in order to have the right balance of REM and N-REM sleep.[6]



How much sleep do young people need?

The U.S. National Sleep Foundation has provided guidelines for the recommended amount of sleep.[6]

	Recommended	May be appropriate	Not recommended
School age children 6–13 years	9–11 hours	7–12 hours	Less than 7 hours More than 12 hours
Teenagers 14–17 years	8–10 hours	7–11 hours	Less than 7 hours More than 11 hours
Young adults 18–25 years	7–9 hours	6–11 hours	Less than 6 hours More than 11 hours

So how much sleep are young people actually getting? A recent review found that teenagers (14–17 years) in Australia were sleeping 6.5–7.5 hours on school nights, with young adults (18–24 year olds) only getting the minimal requirements during the working week.[12] Conversely, young people are gaining more sleep when they have fewer early morning commitments, like on weekends.[13]

What's normal when it comes to sleep for young people?

Young people usually experience natural changes to their sleep patterns from their early adolescence. Some young people, however, can encounter more significant problems with sleep which then impact on their life. The next section explains how to tell the difference.

Young people need more sleep than adults.[6] However, as part of normal biological changes that happen during puberty, young people (approx. ages 10–19) feel tired at a later time of night than they did before.[14] This is because the sleepiness hormone – melatonin – is released at a later time and delays the body clock. It is therefore normal for young people to want to go to bed later and then sleep in later in the morning.

In addition, sleep may be affected by lifestyle factors or habits. These include using electronic devices at night, having more choice over bedtime or having caffeine or tobacco in the evening.[15] A later bedtime, combined with the need to get up early for school or work, can result in some loss of sleep. This combination of a normal body clock delay, brain maturation,[16] changing habits and early morning commitments, can alter a young person's sleep pattern.[17]

If you are experiencing these changes to your sleep, but they don't affect your daytime functioning or cause you distress, then it may not be too much of a problem. If you want to change your sleeping habits, then the tips in the section of this resource called 'Try these tips for a good night's sleep' may be a helpful first step.

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What is not normal when it comes to sleep for young people? When is a good time to seek support?

If, on the other hand, you are struggling to stay awake and concentrate at school or work, and/or have noticed you are more irritable than usual, and/or you are experiencing distress about your sleep, then this could be a sign of more significant sleep difficulties. If these difficulties have been going on for longer than three months, they may meet the criteria for a 'sleep disorder'.

The two most commonly experienced sleep disorders among young people are insomnia and delayed sleep phase disorder (DSPD). Key symptoms of insomnia include regularly taking over 30 minutes to fall asleep, waking up during the night and/or waking up early in the morning and not being able to get back to sleep.[18] A person experiencing insomnia would also be finding it somewhat hard to function when they are awake.

Key symptoms of DSPD include difficulty getting to sleep at a desired time, difficulty waking in the morning and excessive sleepiness during the day (especially in the morning). When a person with DSPD is free to sleep, they will commence sleep much later in the night (e.g. after midnight) and wake later in the morning. Therefore, it is usually not the quality

and duration of their sleep which is the issue, but the timing of it, as having to wake early (e.g. for school/work) does not align with their circadian rhythm. DSPD is more common for adolescents than people of other age groups.[18]

If you are experiencing these symptoms, it's a good idea to seek professional support. The positive news is that there are a number of effective treatments for sleep disorders – including behavioural interventions, talking therapy, sleep hygiene, relaxation techniques and bright light therapy.[19, 20]

Contact your GP, headspace centre or another health professional in the first instance for advice about next steps and accessing sleep interventions. They might refer you to a sleep specialist.

Sleep and mental health

Research has found a significant relationship between sleep and mental health.[20, 21] Sleep has been linked to mood, our ability to manage our emotions and moderate our behaviour, and anxiety.[22–26] Disrupted sleep has generally been considered to be a symptom of mental health difficulties,[27] but recent evidence suggests that ongoing sleep deprivation can also lead to mental health difficulties such as depression and anxiety.[28-30] Therefore when someone finds a way to improve their sleep, this can also have a positive impact on their emotional wellbeing.[19, 29]

If you are struggling to stay awake and concentrate at school or work, have noticed you are more irritable than usual, and you are experiencing distress, then this could be a sign of more significant sleep difficulties.

myths

This section uses research evidence to test some common myths about sleep for young people:

Myth 1

"Young people are lazy"

During adolescence, it's common to go to bed later and then sleep later in the morning when you have the chance – like on weekends.[31] Sometimes wanting to sleep later in the morning can be seen as 'being lazy' but, as discussed, young people generally need more sleep than adults and have a naturally later body clock.[14] As you get older your sleep timing is likely to drift earlier again.

Myth 2

"Watching TV/looking at your phone/listening to music helps you fall asleep"

Many young people use screen media (i.e. phone, tablet, game console, laptop or TV) to help them fall asleep.[32] But using some forms of screen media before bedtime is associated with difficulties falling asleep, sleeping less or having poorer quality sleep.[15, 32] Interactive forms of screen media – like video gaming – interfere with sleep more than passive forms – such as watching TV.[15] There are a growing number of smartphone apps which include relaxation tools. Whilst some young people find these helpful,[33] more research is still needed to explore their effectiveness.

Listening to mindfulness exercises, particularly the 'body scan', has been linked to falling asleep more quickly.[34] Reading books is associated with earlier bedtimes,[32] while listening to music as a sleep aid is related to later bedtimes on weekdays and feeling more tired.[32]

Electronic devices may interfere with sleep in a number of ways.[35] The most likely explanation is that the use of media delays bedtime by prolonging screen time that would otherwise be spent sleeping.[36] Light emitted by some screens contains blue short wavelength light. It has been proposed that this light can interfere with our sleepiness hormone, supposedly making us feel more alert and less prepared for sleep.[37] But there is no evidence to date that blue light from screens has a significant impact on sleep (either in delaying start of sleep or on quality).[38, 39] Nevertheless, 30–60 minutes of low stimulation, screen-free activity before bed promotes the best opportunity for sleep, e.g. reading.[40]

Interactive forms of screen media interfere with sleep more than passive forms.

Myth 3

"Napping is always a bad idea"

There is a belief that daytime napping automatically makes it harder to get to sleep at night. Certainly, napping can reduce the build-up of sleepiness that accumulates throughout the day. Therefore, if you already have ongoing difficulty getting to sleep at night, you should avoid napping.

But if you do not regularly have trouble falling asleep at night, then brief daytime napping may be useful. Research actually suggests that brief naps can improve performance and alertness, and reduce fatigue, following a night of disrupted sleep.[41-43] This is the case even for young people who are not sleep deprived.[44]

For naps to be helpful they need to be short and not too late in the day (i.e. no less than three hours before bedtime). Napping only up to 10–20 minutes is recommended,[45] as this prevents you falling into a deeper stage of sleep.[46] It's important to remember that while naps can be beneficial, they cannot fully replace the positive effect of a full night's sleep.

Myth 4

"Feeling tired is the only consequence of not getting enough sleep"

Growing evidence suggests that sleep plays a crucial role in healthy adolescent development.[5] Therefore, not getting enough sleep affects us more widely than just feeling sleepy. Sleep plays a role in optimising our physical health.[47] It can also affect our concentration, memory and our ability to learn new information.[48-50]

Furthermore, fatigue has been linked to increased likelihood of car accidents[51] and workplace injuries.[52] Reduced sleep duration can also predict increased likelihood of alcohol and other drug use[53] or vulnerability to mental health difficulties.[29, 30] Getting enough good quality sleep therefore has a positive effect on our broader wellbeing along with our ability to function during our time awake.

... not getting enough sleep affects us more widely than just feeling sleepy.

Myth 5

"The cure for sleep problems is sleeping pills"

Sleeping tablets – which usually refer to benzodiazepines (e.g. temazepam) or Z drugs (e.g. zopiclone) – are not recommended as the first option in the treatment of sleep problems experienced by young people[54] and there is limited evidence for their effectiveness.[55] Research with adults has found that some drugs become less effective over time and that, once they have been stopped, the person's sleep problems can return.[56] There is also a risk of some sleeping tablets becoming addictive.[56] Another limitation is that they do not address the underlying cause of the sleep loss.[17]

Melatonin is not classed as a 'sleeping tablet', as it is a hormone that our body naturally produces. As melatonin is used to treat particular types of sleeping problems, such as DSPD, it may not benefit everyone with a sleep problem (i.e. those with insomnia). Since there is no evidence for the safety and effectiveness of melatonin in young people, it should not be used without consultation with a sleep specialist.

There is not enough evidence to say if natural and herbal sleeping aids (e.g. kava, passionflower, valerian) help young people with sleep problems.[57] Further, there is no guarantee that a 'natural' substance is safe[57, 58] and there are concerns about some natural substances being harmful.[57, 59]

The good news is that there are plenty of other things that you can try that research has linked to a good night's sleep. See the tips in the next section.

Helpful resources

See the resource on this page called 'Assessing and responding to sleep problems in young people seeking help for mental health difficulties – A guide for clinicians' – orygen.org.au/Education-Training/Resources-Training/Resources/Free/Evidence-Summaries

A report on the relationship between sleep and mental health – sleephealthfoundation.org.au/files/Sleep_and_Mental_Well_being/Sleep_and_mental_wellbeing_exploring_the_links_full_report.pdf

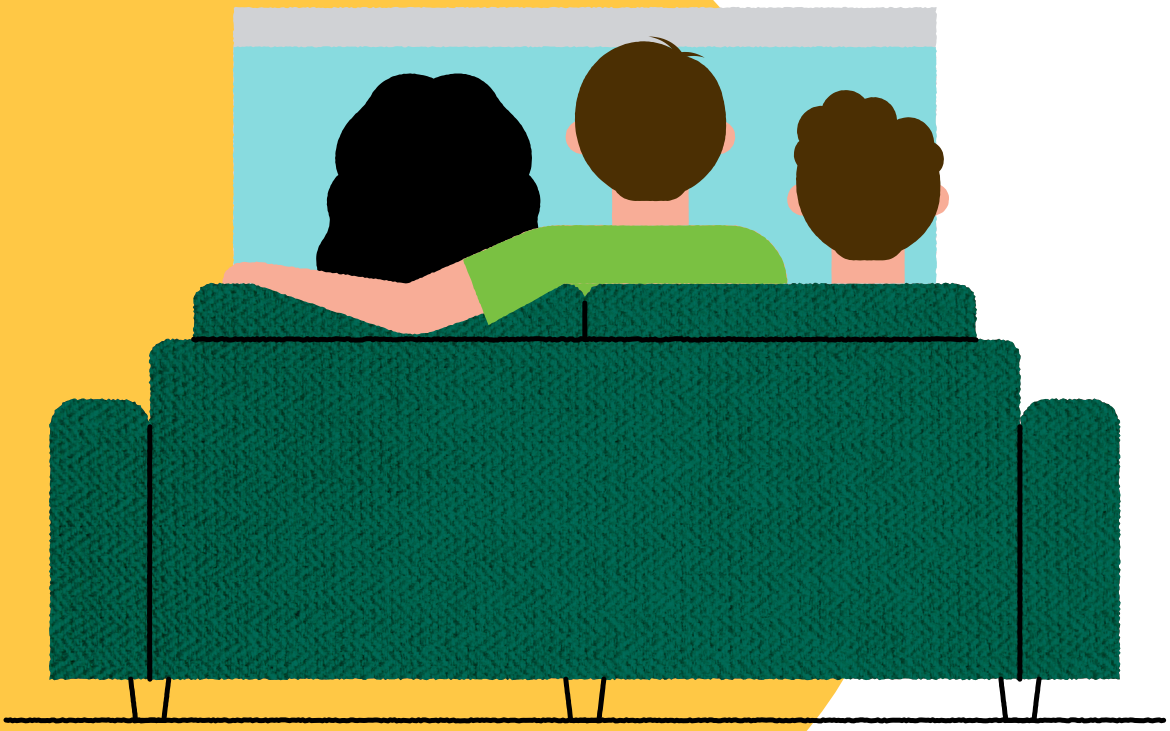
Fact sheets on a range of sleep issues – sleephealthfoundation.org.au/fact-sheets.html

Try these tips for a good night's sleep

- Try to stick to a sleep schedule which involves going to bed and waking up at a similar time every day, even on weekends.
- An hour before bed, try to limit your use of screens. If you do use screens, it can be better to do more passive activities, like watching TV, rather than interactive gaming and social media.[15]
- Try to create a night-time routine that will signal to your body that it's time to wind down – perhaps including a warm shower or bath, reading a book and then dimming the lights.
- It is better that your bedroom is associated with sleep rather than watching TV or studying, so try to move these other activities outside of the bedroom.
- Sunlight can help get your body clock on track, so seek natural light after you wake.
- Morning exercise could also help your body clock to shift earlier, but avoid exercise close to your usual bedtime.[60]
- Keep light and noise to a minimum and maintain a room temperature of about 18–20 degrees for the optimum sleeping environment.
- If you are having trouble winding down, try some meditation, deep breathing or muscle relaxation. Mindfulness such as the 'body scan' exercise may also help you get to sleep.[34]
- Try not to have any caffeine after 6pm.[15] This includes coffee and energy drinks, and also some soft drinks, some sports supplements, black and green tea and chocolate.
- Try to avoid, or limit, your intake of alcohol or cigarettes before bed. While you might find it easier to get to sleep quickly after a few drinks, alcohol can actually make it harder to stay asleep and to get the quality sleep which helps us feel rested and able to function. Nicotine is also a stimulant and can cause smokers to sleep lightly.
- Try to keep naps to 10–20 minutes and avoid them after late afternoon. While they can help make up for lost sleep, if they are too long or late in the day they can make it hard to fall asleep at night.
- It's important to know that it might take a few weeks to notice a difference when trying out some of these tips – one or two nights is not enough time. If you've tried some of these suggestions and you're still having trouble sleeping, talk to your GP, headspace centre or another health professional.

What family and friends can do to help

- Appreciate that a young person's body clock works on slightly later timing than that of an adult and that they need more sleep overall. This means they may not feel ready for bed until a later time, and when given the opportunity, will want to sleep later into the morning. But if this pattern is causing problems for them and they seem distressed by it, then it may be time to seek help and support.
- Make sleep a priority. You might not be aware how much sleep your family member or friend is actually getting.[61] Carer-set bedtimes do appear to support longer durations of sleep for young people aged 12–18.[15] When sleep is prioritised in the family, this can have a positive impact on wellbeing,[17] so it's a good idea look after your own sleep needs, too.
- Keep calm about screen use. It is natural to be concerned about a young person's screen use before bed, especially with so much advice around its impact on sleep or wellbeing. But research suggests that avoiding arguments about devices may be more helpful for sleep than reducing media use.[15]
- Try to start a discussion around what is keeping the person awake. Worries can delay sleep[62] – including worries about not sleeping enough and how this will affect the ability to get through the day.
- If your family member or friend has been experiencing excessive sleepiness, difficulties falling asleep and/or staying asleep, increased irritability, trouble concentrating and is expressing distress about their sleep difficulties,[18] it is a good idea to encourage them to seek support. The first step would be getting in touch with a GP, headspace centre or other health professional. Effective interventions, are available.



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Disclaimer


headspace would like to acknowledge Aboriginal and Torres Strait Islander peoples as Australia's First People and Traditional Custodians. We value their cultures, identities, and continuing connection to country, waters, kin and community. We pay our respects to Elders past and present and are committed to making a positive contribution to the wellbeing of Aboriginal and Torres Strait Islander young people, by providing services that are welcoming, safe, culturally appropriate and inclusive.

headspace is committed to embracing diversity and eliminating all forms of discrimination in the provision of health services. headspace welcomes all people irrespective of ethnicity, lifestyle choice, faith, sexual orientation and gender identity.

headspace centres and services operate across Australia, in metro, regional and rural areas, supporting young Australians and their families to be mentally healthy and engaged in their communities.

For more details about headspace visit headspace.org.au

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