

What is sleep?

Sleep is when your body has [a temporary lack of awareness of yourself and your surroundings, and reduced responsiveness to stimulation.](#)

During sleep, activities in your brain and the rest of your body are different than when you are awake.

Sleep is essential for the repair and regeneration of cells, tissues and organs of your body, and for storing memories and helping to regulate your mood, emotions and overall mental wellbeing.

There are [four different stages to being asleep,](#) which depend on the type of electrical activity in your brain.

- As you fall asleep, you enter stage one of non-rapid eye movement (NREM) sleep, which is a transition period between being awake and asleep. During this stage, your brain, heartbeat, breathing rate and eye movements slow down your body relaxes (and your muscles might twitch)
- Stage two NREM sleep happens after stage one. During stage two NREM sleep your eyes stop moving, your breathing and heart rate become more regular, and your body temperature starts to fall. During this stage, your brain begins organising new memories from your day
- Stage three NREM sleep is the deepest stage of sleep. Your muscles relax completely, your breathing slows down and your blood pressure drops. You're not easily woken by noises or other stimuli. Your body begins repairing itself and your brain lays down memories of events that happened during the day and things you learned (like facts or general knowledge)
- Rapid eye movement (REM) sleep involves brain activity similar to that seen when you're awake, your eyes move quickly and your breathing becomes faster and irregular. This is the stage when most of your dreaming happens, and your body movements are inhibited so you don't act out your dreams. REM sleep is important for learning

The four sleep stages do not happen in perfect order but they cycle over periods of about 90 minutes throughout the night. The body's own clock — its [circadian rhythm](#) — is responsible for syncing sleep with nighttime. Things that upset your circadian rhythm, like shift work and jet lag, can [cause sleep problems in some people.](#)☐

Everyone's sleep needs are slightly different, and there are [differences in sleep between males and females.](#) For example, [women tend to sleep earlier in the evening than men, and physiological measurements of sleep suggest women sleep longer and have more deep sleep than men but, in general, men believe they have better quality sleep than](#)

[women.](#)

For sleep to be [normal and healthy](#) it needs to be long enough, with uninterrupted cycles through the four sleep states, in time with your circadian rhythm, and have a regular pattern.

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What are sleep disorders?

There are [more than 100 different sleep disorders](#), which cause poor quality or not enough sleep, [including](#):

- Insomnia – difficulty falling asleep or staying asleep. [The prevalence of insomnia is about 40% higher in women than men](#)
- Hypersomnia – excessive daytime sleepiness, even though nighttime sleep is normal
- Parasomnia – unusual behaviour during sleep, like sleepwalking, bedwetting and sleep paralysis
- Narcolepsy – excessive daytime sleepiness that is usually irresistible, even though nighttime sleep is normal, sometimes with a sudden loss of muscle tone causing collapse
- Sleep apnoea – in obstructive sleep apnoea, breathing is interrupted during sleep due to blockage of the airway; in central sleep apnoea, the parts of the brain that drive breathing don't work properly, causing breathing efforts to stop. [Obstructive sleep apnoea is about twice as common in men than in women](#)
- Restless leg syndrome – an extreme urge to move either the right or left leg (not both) during sleep because of pain or unpleasant feelings in the leg. Restless leg syndrome affects about 10% of adults and may be more common in women than men

Symptoms of poor sleep

Sleep disorders can make you feel sleepy or tired during the day, reduce your ability to think or concentrate, or affect your mood and/or emotions.

Diagnosis of sleep disorders

[Different sleep disorders have their own specific features](#), which might require [specific tests](#) ordered by a doctor.

Your doctor will ask you questions about your sleep and might suggest you keep a diary for a while to help identify the type of problem you have.

Sleep disorders due to circadian rhythm disturbance might require measurement of movements when you sleep, using a device that you wear while sleeping. Other sleep disorders (e.g. sleep apnoea) might require measurements of brain and muscle activity and other factors during sleep, either at home or in a sleep laboratory during an overnight study.

Diagnosing narcolepsy may involve genetic testing or laboratory testing of a sample of cerebrospinal fluid.



Treatment of sleep disorders

There are a variety of [medications used to treat sleep disorders](#). For some sleep disorders, counselling can be an effective treatment.

Treatment for obstructive sleep apnoea depends on its cause and severity, and can include:

- Changing sleep position
- Weight loss
- Mouth appliances to hold the airway open
- Breathing support during sleep, using continuous positive airway pressure (CPAP) or bilevel continuous positive airway pressure (BiPAP)
- Surgery



Health effects of poor sleep

If your sleep is disrupted, you're not getting enough of it regularly or it's not in sync with your circadian rhythm, you're more likely to experience serious health problems, [including](#):

- Obesity
- [Type 2 diabetes](#)
- [Cardiovascular disease](#) (including high blood pressure)
- Anxiety and depression
- [Cancer](#)
- [Erectile dysfunction](#)

What can I do to improve sleep?

What can I do to improve my sleep?

[Taking care of yourself is important for good sleep.](#)

[Eat well](#) and do enough [physical activity](#). Spend some time in the day light, and find things that help you to unwind. Avoiding too much caffeine and alcohol, especially late in

the day, can help you to get better sleep.

For a good night's sleep you should avoid napping during the day, and try to go to bed and get up at the same time each day. It can be helpful to follow the same routine before bed each night, and avoid screens in the lead-up to going to bed.

Blocking out noise and light can help you sleep, and it helps to have a comfortable bed, and not be too hot or cold.

Try to [use your bed only for sleeping and sex](#). Spending time in bed watching TV, working on your laptop or scrolling on your phone can prevent you from building a strong association between bed and sleep.☐

Do you need more help?

[Sleep Foundation](#)

[Sleep Health Foundation](#)