

## Sleep

Sleep is as essential for good health as oxygen, food and water. Yet we still don't know exactly what it is or how it works. Most scientists agree that sleep is important for restoring physical and mental health. It refreshes the mind and repairs the body. Lack of sleep, or sleep deprivation, can cause fatigue, poor concentration and memory, mood disturbances, impaired judgement and reaction time, and poor physical coordination.

The body's internal clock regulates when and how we sleep depending on the amount of light around us. When the sun sets, your brain releases hormones to make you sleepy. In the morning, exposure to daylight suppresses these hormones and releases brain chemicals to keep you awake.

### Getting enough sleep

Before electricity, people used to sleep between sunset and sunrise. The typical person's sleep averaged a generous ten hours – the same amount enjoyed by other primates like chimpanzees and baboons. Today, sleep deprivation is common in developed nations, with the average adult sleeping for only six or seven hours each night.

Most of us feel fatigued at least some of the time. It is thought that fatigue causes about one road accident in six. Studies show that a common distraction from sleep is the Internet and more recently, texting. Parenthood, shift work, travel across time zones, illness, poor sleeping habits and some medications are other common sleep-stealers. New parents lose, on average, between 450 and 700 hours of sleep during their child's first 12 months of life.

### Sleep stages

Sleep isn't a static state of consciousness. The brain moves through distinct stages of sleep, over and over, every night. The two broad categories of sleep include:

- Rapid eye movement (REM) sleep
- Non-rapid eye movement (NREM) sleep.

### Rapid eye movement (REM) sleep

Rapid eye movement sleep occurs regularly, about once every 90 to 120 minutes. It makes up about one-quarter of your night's sleep. The brain in REM sleep shows significant electrical activity. The sleeper's eyes tend to dart about under closed lids, hence the name.

The bulk of dreams are thought to occur during REM sleep. Sleep researchers have established that at least some eye movements correspond with dream content, which suggests that we watch our dreams like we watch movies on a screen. REM sleep makes up a larger proportion of the total sleep period in babies (especially premature babies), which suggests that dreams help to mature a developing brain.

### Non-rapid eye movement (NREM) sleep

Non-rapid eye movement sleep is what you experience for the remaining three-quarters of your sleep time. The amount and type of NREM sleep vary with age and the degree of sleep deprivation.

The four broad stages of NREM sleep include:

- **Stage 1** – Dozing or drowsiness. You hover between being asleep and awake.

- **Stage 2** –You lose awareness of your surroundings. Body temperature starts to drop. Breathing and heart rate slow down.
- **Stages 3 and 4** – Deep sleep, also known as ‘delta sleep’. Your blood pressure, heart rate and breathing become very slow and your muscles relax. Growth and repair processes occur during this stage.

## Sleep disorders

Common conditions that can affect a person’s sleep include:

- Insomnia
- Sleep restriction/insufficient sleep/sleep-related habits that reduce sleep time
- Parasomnias such as nightmares, sleep walking and night terrors
- Circadian rhythm disorders where the desire and ability to sleep are out of phase with the 24-hour social environment, such as jet lag and shift work sleep disorder.
- Narcolepsy
- Periodic limb movement disorder and restless legs syndrome
- Snoring and obstructive sleep apnoea.

## Where to get help

- Your doctor
- Sleep disorders clinic
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice 24 hours, 7 days

## Things to remember

- Sleep is essential for your health. It refreshes the mind and repairs the body.
- Lack of sleep can cause fatigue, poor concentration and memory, mood disturbances, impaired judgement and reaction time, and poor physical coordination.
- Common causes of sleep deprivation are parenthood, shiftwork, travel across time zones, illness, poor sleeping habits, some medications and the Internet.
- It is thought that fatigue causes about one road accident in six.

**This page has been produced in consultation with, and approved by:**

Sleep Health Foundation

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