



Sleep handout

How much sleep do I need?

Quality sleep at the right times is essential to survival. Without sleep you can't form or maintain the pathways in your brain that let you learn and create memories, and it's harder to concentrate and respond quickly.

Your need for sleep and your sleep patterns change as you age, and also vary significantly across individuals. There is no magic number of sleep hours that works for everybody of the same age. Babies sleep as much as 18 hours per day. Children and teens on average need 9.5 hours of sleep per night. Most adults need 7-9 hours of sleep a night, but after age 60 sleep tends to be shorter, lighter, and with multiple awakenings.

Sleep stages

During sleep, the body cycles between rapid eye movement (REM) sleep when most of our dreaming occurs, and non-REM sleep, broken down into three stages from light to deepest sleep. Every 90 minutes we complete a cycle through stages 1, 2, and 3 then back to stage 2 and stage 1 before a period of REM sleep (around 10 minutes early in the night and up to an hour in the final period before waking).

Stage 1 non-REM sleep is the changeover from wakefulness to sleep. During this short period (lasting several minutes) of relatively light sleep, your heartbeat, breathing, and eye movements slow, and your muscles relax with occasional twitches.

Stage 2 non-REM sleep is a period of light sleep before you enter deeper sleep. Your heartbeat and breathing slow, and muscles relax even further. Your body temperature drops, and eye movements stop. You spend more of your repeated sleep cycles in stage 2 sleep than in other sleep stages.

Stage 3 non-REM sleep is the period of deep sleep that you need to feel refreshed in the morning. It occurs in longer periods during the first half of the night. Your heartbeat and breathing slow to their lowest levels during sleep.

During REM sleep your eyes move rapidly behind closed eyelids. Mixed frequency brain wave activity becomes closer to that seen in wakefulness. Arm and leg muscles are temporarily paralysed, which prevents you from acting out dreams. It is important to note, however, that body paralysis is not always present during posttraumatic nightmares, leading some people to act out their dreams.

Circadian rhythms direct daily fluctuations in wakefulness, body temperature, metabolism, and the release of hormones. They control your timing of sleep and cause you to be sleepy at night and wake in the morning. They are based on a roughly 24-hour day. Circadian rhythms synchronize with environmental cues (light, temperature), but can continue in the absence of cues. They are influenced by external factors (associations with sleep, stress levels, what you eat) as well. Sleep problems associated with shift work and international travel reflect disruption to the body's natural circadian rhythm.

Sleep-wake homeostasis keeps track of your need for sleep. The homeostatic sleep drive reminds the body to sleep after a certain time and regulates sleep intensity. This sleep drive gets stronger the more you are awake and causes you to sleep more deeply after sleep deprivation.

Two major processes of sleep and wakefulness. Sleep involves an interaction between two processes affecting sleep and wakefulness, the homeostatic sleep drive and the circadian rhythm.

Sleep, nightmares, and disasters

After disasters many people have disrupted sleep. For some people who develop post-disaster mental health conditions, sleep problems can last many years if untreated. So, it is important to monitor your sleep after a disaster and get help if it doesn't return to normal with the simple strategies in this handout. Give yourself a few weeks first – remember disrupted sleep is normal for a short while, as your brain tries to process the very big things that have happened.

If you find that you are avoiding sleep, or having nightmares wake you up, or you or your child are 'sleep walking or talking' then these are signs that it would be good to discuss your sleep with your GP.

Wind down activities

If you don't have a favourite or effective wind down activities, the first step in managing sleep would be to trial a few relaxation, breathing, or meditation exercises. There are a lot available free of charge. A few websites that have good exercises are:

Smiling Mind: This non-for-profit Australian app is made by psychologists. It has different meditations for different age groups.

Headspace: This UK meditation app has free ten-minute sessions are a great introduction to how mindfulness works.

Stop, Breathe & Think: This US app asks you to enter what you're feeling before and after you meditate. Tracking your feelings over time is a great way to understand the patterns in your life and see the progress you're making. You can download these from Apple or Android.

What are good sleep habits?

Good sleep habits are often referred to as good sleep hygiene. There are many things that can be done to improve sleep. While most of these are common sense, life is very busy and we often don't think about them.

What should I do in the evening?

Try to go to bed at the same time each night. The body has an internal clock and hormones that control sleepiness and wakefulness. This clock works best if there is a regular sleep routine. When working well, you will feel sleepy at bed time. Try not to ignore this by staying up, as this is a window of opportunity for sleep. Going to bed too early can also disturb your sleep. In the hour before going to bed, it is important to have a relaxing sleep routine. This may include a warm bath, reading quietly or a warm milk drink.

Are there things that I should not do in the evening?

Caffeine (coffee, tea, and soft drinks) and cigarettes should be avoided for at least 4 hours before going to bed. Alcohol might help you get to sleep, but it will make it harder to stay asleep. Activities that are stimulating should be avoided in the hour before bed. This includes moderate exercise, computer games, television, movies and distressing conversations. Being in a brightly lit environment or the blue light of the computer can reduce evening levels of the sleep-promoting hormone melatonin.

What about meals and sleep?

Having a full stomach makes it difficult to sleep. The evening meal should be at least 2 hours before bedtime. Some people find that having a small snack at bedtime helps them to sleep better.

What should I do when I'm in bed?

Warmth is important, both the temperature of the room and having enough blankets. Having warm hands and feet is essential. The mattress, pillow and blankets should be comfortable and restful. There should be no distractions in the bedroom. This may mean removing the television, computer, radio and telephone. If there is a clock in the bedroom, it should be covered to avoid clock watching.

What should I do during the day?

Stay out of bed. Some people use the bedroom as a living room, where they study, watch television, and make phone calls. This will stop the brain linking the bed with sleep. The bedroom should be used for sleeping and intimacy only. Exercise is good for sleep, but not just before going to bed. Exercise in the morning or before the evening meal. Being out in the sun during the day will help with your body clock and the melatonin levels in the body. It is best to be outside in the early part of the day.

What should I do if I can't get to sleep?

If you are not asleep within 20 to 30 minutes of going to bed you should get up. Go to another darkened room and sit quietly. Do not watch television, use a computer, eat, drink or do household chores. When you feel tired again go back to bed. This helps your mind link bed with sleep. Do not look at the clock because no matter what time it is you will have an emotional reaction. Rest is good – it does not have to be sleep.

What if you can't shut off your mind?

Some people lie awake in bed at night and cannot switch off their thoughts. If this is a problem, set aside a 'worry time' during the day or early evening. Use this time to think about what has been happening during the day, make plans and possible solutions. Then don't think about these things until the next day. Keep the hour before bed as your wind down time – develop a routine that prepares your body and mind for sleep. Listen to quiet music or do relaxation.

How important is a routine?

Try to stick to a good sleep routine. Improved sleep will not happen as soon as changes are made. But if good sleep habits are maintained, sleep will certainly get better. It is not possible to do the same thing every day, but it should be most days. Find what works for you and stick with it. If you try everything and your sleep still doesn't get any better, then see your GP.

More information is available from www.sleephealthfoundation.org.au