

Zurich Rehabilitation Sleep Hygiene

Recognising and managing a sleep problem



Recognising and managing a sleep problem

Most people experience problems with sleep at some point in their lives. According to The Great British Bedtime Report 2017 it is thought that a third of the British public will have episodes of insomnia at some point during their lives.

Insomnia can take on many forms. The NHS define this by stating that you suffer with insomnia if you regularly experience any of the following symptoms:

- find it hard to go to sleep
- wake up several times during the night
- lie awake at night
- wake up early and can't go back to sleep
- still feel tired after waking up
- find it hard to nap during the day even though you're tired
- feel tired and irritable during the day
- find it difficult to concentrate during the day because you're tired

(NHS UK/insomnia/2018).

This booklet is aimed at supporting those whose sleep has been disrupted following an injury as part of their rehabilitation to aid their recovery. It looks at good sleep hygiene as a way of returning to a healthy sleep pattern.

Sleep hygiene is the term used to encompass recommended behavioural and environmental practice that is intended to promote better quality sleep. It utilises a variety of different practices and habits that are necessary to help you achieve a healthy pattern of regular good night-time sleep and full daytime alertness.

Don't:

- Exercise just before going to bed. Yoga/stretching is okay but try to finish 2 hours before bed.
- Engage in stimulating activity just before bed; computer games, watching an exciting program or film. Switch off electronic devices such as tablets and phones before bed.
- Have caffeine 4 hours before bedtime (coffee, tea, cola, chocolate).
- Use alcohol as an aid to sleep (it has the adverse effect – it may make you drowsy but you will wake to go to the toilet).
- Smoke before going to bed. Make your last cigarette at least an hour before your bedtime. (Nicotine is a stimulant and will keep you awake). Nicotine patches and nicotine chewing gum will have the same effect.
- Go to bed hungry or too full. Try to eat before 7pm at night to avoid indigestion.
- Take another person's medication (including sleeping pills).
- Take daytime naps or doze in front of the TV. Try to keep yourself awake with something stimulating during the day and plan to wind down about 2 hours before bedtime.
- Command yourself to go to sleep (it won't work – it only makes your mind more alert).



Alcohol and caffeine can interfere with sleep so try not to drink too much of either of these, especially in the afternoons and evenings.

Quick tips for better sleep

Do:

- Go to bed at the same time each day.
- Get up from bed at the same time each day (even if you haven't slept well the night before).
- Get regular exercise each day, preferably in the morning (not just before bed).
- Get regular exposure to outdoor or bright light during the day (go out for a walk at lunch time).
- Keep the temperature in the bedroom comfortable. Cooler environments are more likely to induce sleep.
- Keep the bedroom calm, tidy and dark enough to facilitate sleep.
- Keep the bedroom quiet. Try thicker, blackout curtains, sleeping at the back of the house or even wear ear plugs to avoid being woken up by noise.
- Use your bed for sleep and sex only. Keep TV and electronic devices out.
- Use a relaxation exercise just before going to sleep or a relaxation tape (yoga stretches).
- Try muscle relaxation to help de-stress and unwind (a warm bath or a massage).
- Keep your feet and hands warm in winter. Wear warm bed socks and/or mittens to bed.
- Try sprinkling lavender scent on the pillows or on damp towels laid over the radiators just before bed.
- Check labels for over the counter remedies such as Nytol as they are not suitable for everyone.
- Set aside an hour before bedtime to write down your worries, use the worry tree to prioritise your worries to free up your mind for sleep.
- If you find yourself awake for more than 20 minutes, get up, go to a different room, participate in a quiet activity such as colouring or flicking through a magazine (avoid reading a stimulating book) then return to bed when you feel sleepy.

The importance of sleep following injury

Sleep is an essential part of feeling happy and well. Almost everyone experiences sleep problems at some point in their life. With our busy lifestyles many of us have learned to live with the side effects of sleep deprivation but there's a difference between the amount of sleep you can get by on and the amount of sleep that you need to function optimally.

Sleep disruption is common especially during times when you feel emotionally overwhelmed. Heightened emotions and replaying the day's events may significantly interfere with your sleep. Lack of sleep deprives you of much needed rest making it much more difficult to recover from any physical or psychological injury.

Adequate rest is essential to successfully recover from injury. Sleep is the only part of the day when a body can heal itself both physically and mentally. Many different chemical and physiological reactions occur while sleeping, but some of the most important are the balancing of the hormones related to tissue growth, stress control, along with appetite and weight management. It is therefore important to develop a healthy sleep pattern and this can start with reviewing your daily routine and levels of stress. However, it often takes time to get disrupted sleep under control so this is literally not going to happen overnight.

This guide will provide you with further insight into the causes of insomnia but for a quick reference please see our tips for better sleep located at the back of this book.

How much sleep is 'a good night's sleep'?

According to The Great British Bedtime Report 2017, 74% of the British public are sleeping for less than seven hours a night, with one in ten people (12%) getting less than five hours. One in three of us suffers from poor sleep, with stress, computers and taking work home often blamed.

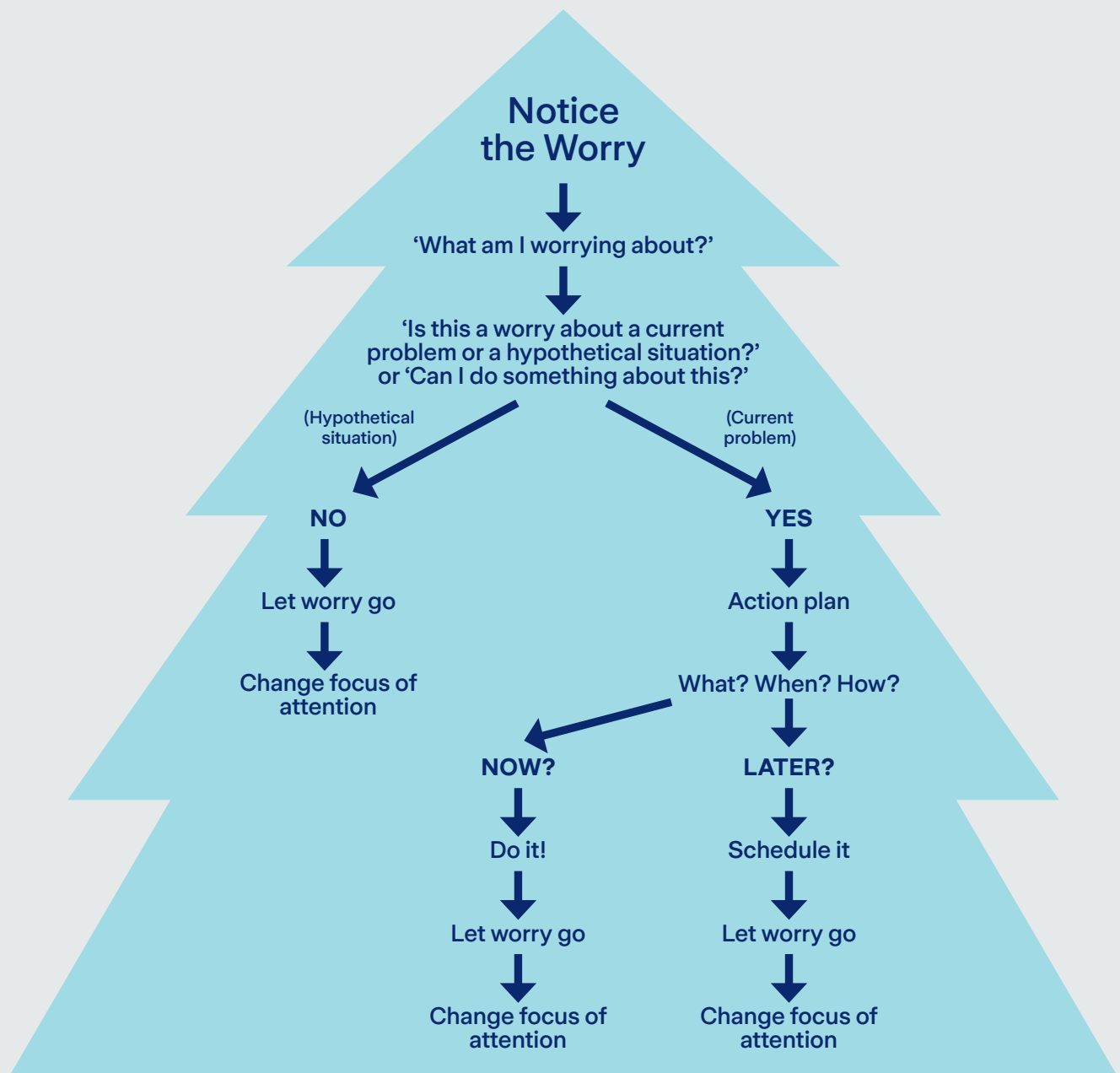
We can generally recover well from the odd sleepless night. The short term implications of sleep deprivation include impaired mood, reduced mental sharpness and decreased ability to handle stress and make decisions. However, regular poor sleep increases the risk of serious medical conditions including obesity, stroke, heart disease and diabetes. Ultimately this can shorten life expectancy. It is clear that a good night's sleep is essential for a long and healthy life.

In considering how much sleep each of us needs, the key factor is quality not quantity. Most adults need between six and nine hours of good quality sleep a night to function properly but some need more and some need less.

As a general rule if you wake up tired and spend the day longing for a nap it's highly likely that you are not getting enough quality sleep. However, following injury, particularly to the head, you may feel fatigued and need more sleep in the early days of recovery.

After several sleepless nights you will find it difficult to concentrate and make decisions. You may also become irritable and snappy. Your mood will be low and you may fall asleep during the day. The risk of injury and accidents then naturally increases.

The worry tree



Recognising when you need professional help

Following injury, you might find that your sleep pattern is disrupted due to pain, anxiety, nightmares and intrusive thoughts about the incident or the impact that your injury has on your life. The initial telephone assessment with your Rehabilitation Case Manager is designed to identify the need for onward referral. If the self-help tips are not successful you may require professional help to return to your pre-injury sleep pattern. You might find it beneficial to speak to your Rehabilitation Case Manager about this to establish if you require psychological professional support.

Cognitive Behavioural Therapy for insomnia (CBTi)

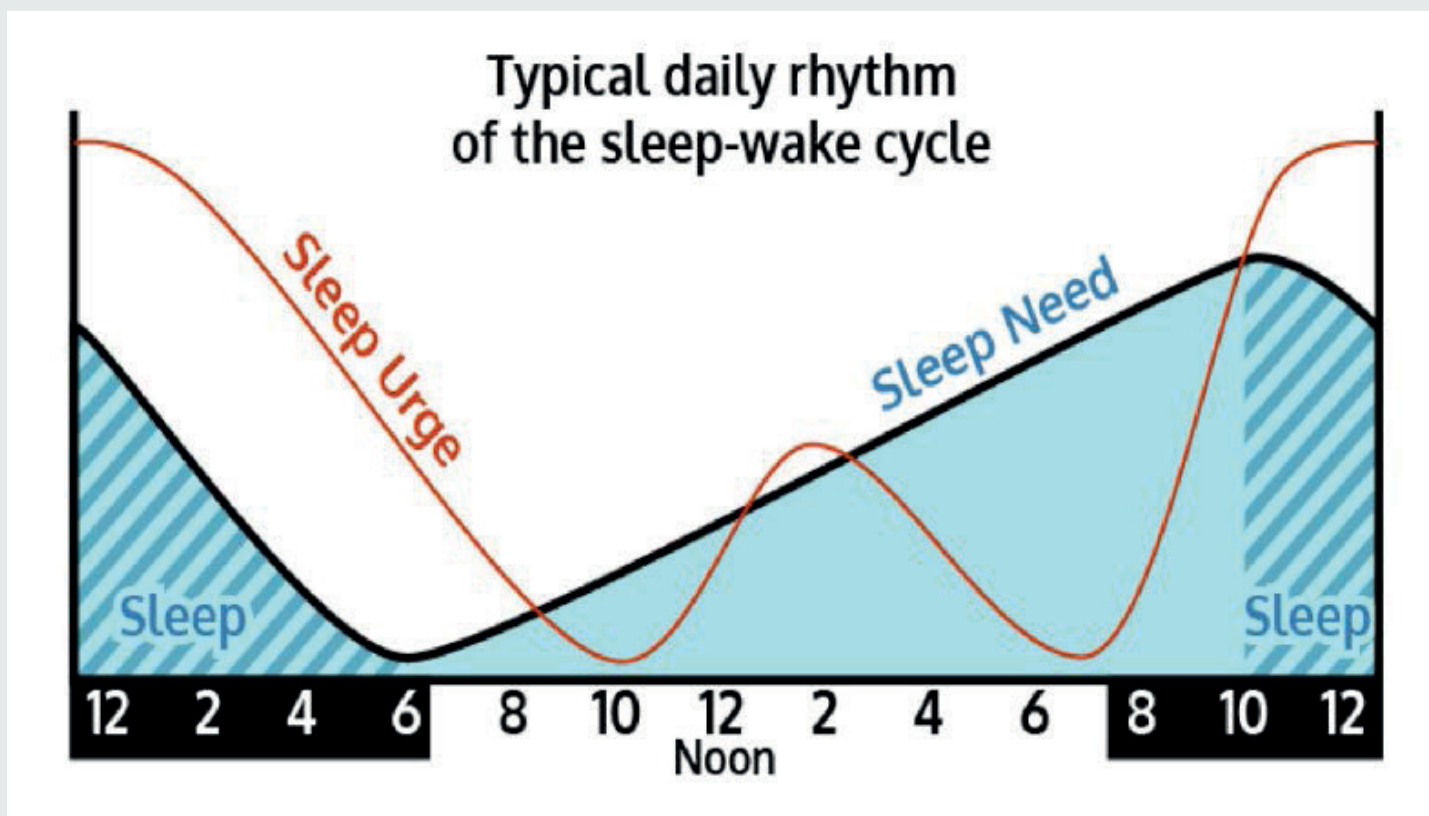
Cognitive Behavioural Therapy is commonly prescribed for depression, but clinical trials have shown it is the most effective long-term solution for insomniacs. CBTi helps you identify the negative attitudes and beliefs that hinder your sleep, then replaces them with positive thoughts, effectively 'unlearning' the negative beliefs.

A typical exercise is to set aside 30 minutes per day, in which you do your day's worth of worrying. During this worry period you keep a diary of your worries and anxious thoughts, writing them down in order to reduce the weight on your mind. Once this task is complete, you are banned from worrying at any other point in the day. Using a Worry Tree exercise approximately an hour before bedtime may prove helpful if anxiety and stress are preventing a good night's sleep.

Mindfulness is also something that you may be able to practice independently. Before you go to sleep, write down the worries that you think may keep you awake. Once you are in bed with your eyes closed, you should imagine those thoughts floating away, leaving your mind free, peaceful, and ready to sleep.

What does healthy sleep look like?

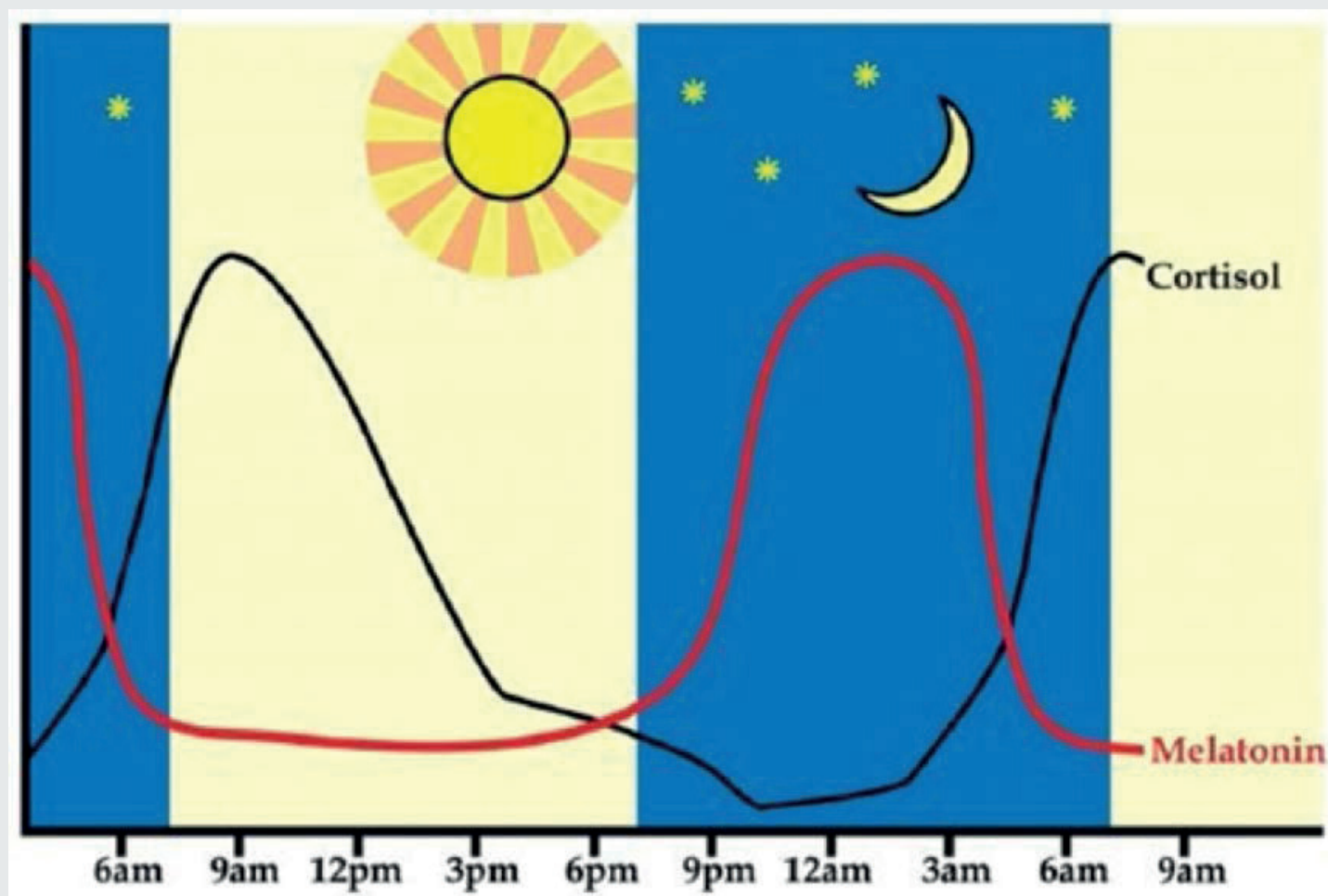
The diagram below shows a typical daily sleep/wake cycle showing that most people naturally wake up during daylight hours and build up the need for sleep during the day, as night falls the urge to sleep builds up and we go to bed.



The importance of natural daylight

Daylight plays a very important part in achieving a healthy sleep pattern because light stimulates the production of the sleep hormone Melatonin. In simple terms the light cues taken in through your retina in the eye, for example daylight changing to night time and vice versa, sends signals directly to the hypothalamus deep inside the brain, stimulating the circadian rhythm receptors. These receptors, in turn, send follow-up signals to the pineal gland, where a dose of sleep-inducing Melatonin is released to your body. Near morning your Melatonin levels drop once again, to daytime levels, and core body temperature dips in a key circadian pattern.

Exposure to light stimulates the production of Melatonin and darkness is the trigger to release it, inducing sleep. Darkness then stimulates the production of Cortisol (the stress hormone) and the trigger to release this is daylight.



Sleep restriction

This technique involves only spending the amount of time in bed that equates to the average number of hours that you sleep. For example, you might only get five hours of sleep per night, even though you spend seven hours in bed. By using the Sleep Restriction method, you limit yourself to only five hours in bed per night.

This technique might make you more tired at first, but it can help you fall asleep faster and wake up fewer times. However, it's not suitable if you're only getting a couple of hours' sleep per night, and should be supervised by a qualified CBTi Sleep Practitioner.

Sleep analysis and sleep diaries

It may be helpful to complete a sleep questionnaire and sleep diary then submit this to assist with your support. Contact your Rehabilitation Case Manager to discuss further.

Based on the average of 7- 8 hours sleep per night, you should also be able to set a good bedtime routine from the time you need to be up.



Make sure that you have a comfortable bed and that your bedding is not too thick in the summertime or too light in the wintertime.

If you wake up in the night and have trouble going back to sleep, leave the bedroom and only go back and try to sleep again when you feel tired (a good sign of this is yawning). This may be around 45 minutes after you have woken up.

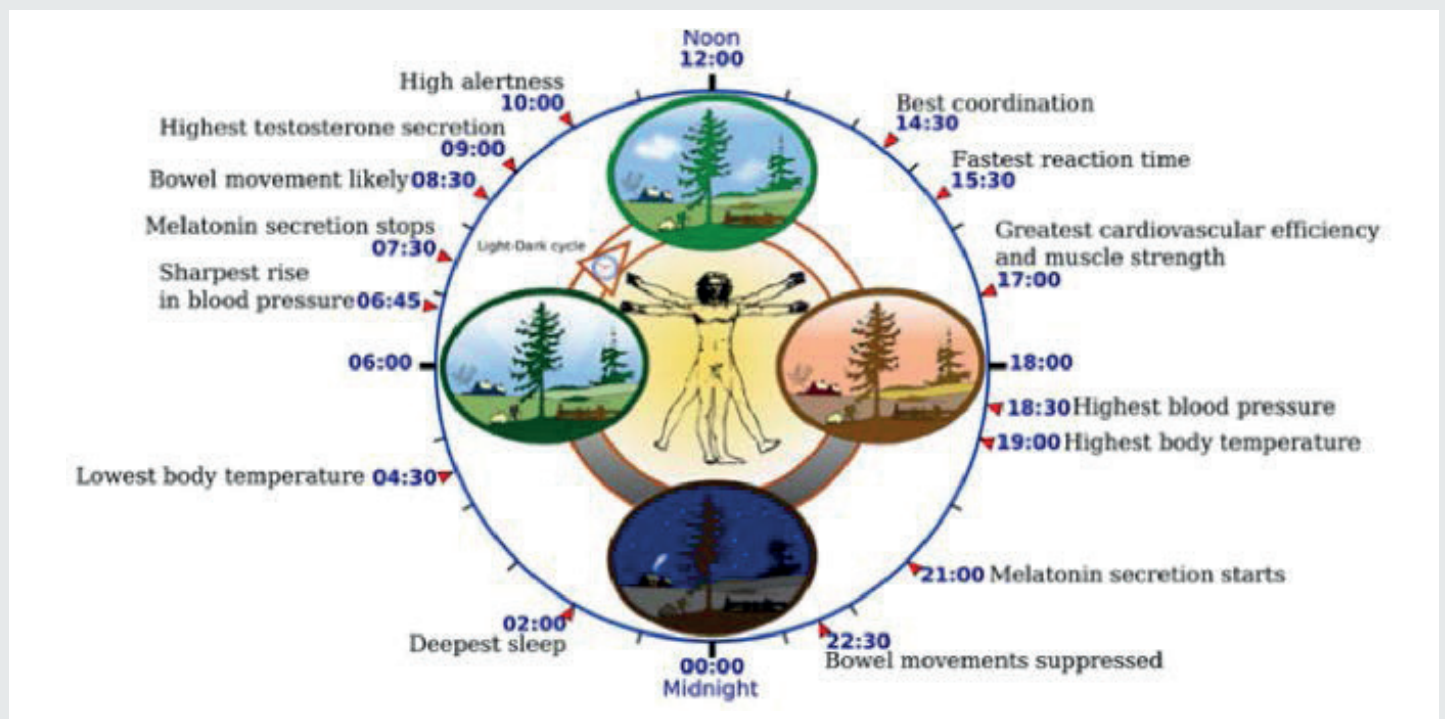
Stimulus control – the 20 minute rule

If you're not asleep after twenty minutes, it's recommended that you get up and find another activity to do. This should be quiet and peaceful, and not involve your phone or other digital displays. Listening to music, reading or doing yoga are all recommended as great 20 minute rule activities.

When you feel sleepy again, you should return to bed. The idea of this method is to build a strong association between bed and sleeping, and eventually you'll be able to fall asleep quickly.

Artificial light will also stimulate the production of the Melatonin but natural daylight, particularly early morning, is much stronger and more effective. If you recall as a child going out on a day trip and sleeping well that night, you may have been told it was the exposure to fresh air but it was more likely to be spending the day in natural light. A day trip to the coast has the added bonus of increased light intensity when reflected on the sea and sand. While artificial light is not as effective as natural daylight in stimulating the production of Melatonin, bright street lights shining in through the bedroom window or a television left on and even the LED light from a bedside alarm clock can disrupt sleep in some people.

The biological clock and sleep



The Circadian Rhythm repeats daily but we also experience a regular pattern of peaks and troughs in our level of alertness throughout the day. This repeated pattern is known as an ultradian cycle. The descriptive term ultradian is used in sleep research in reference to the 90–120 minute cycle of the sleep stages during human sleep.

Stages of sleep

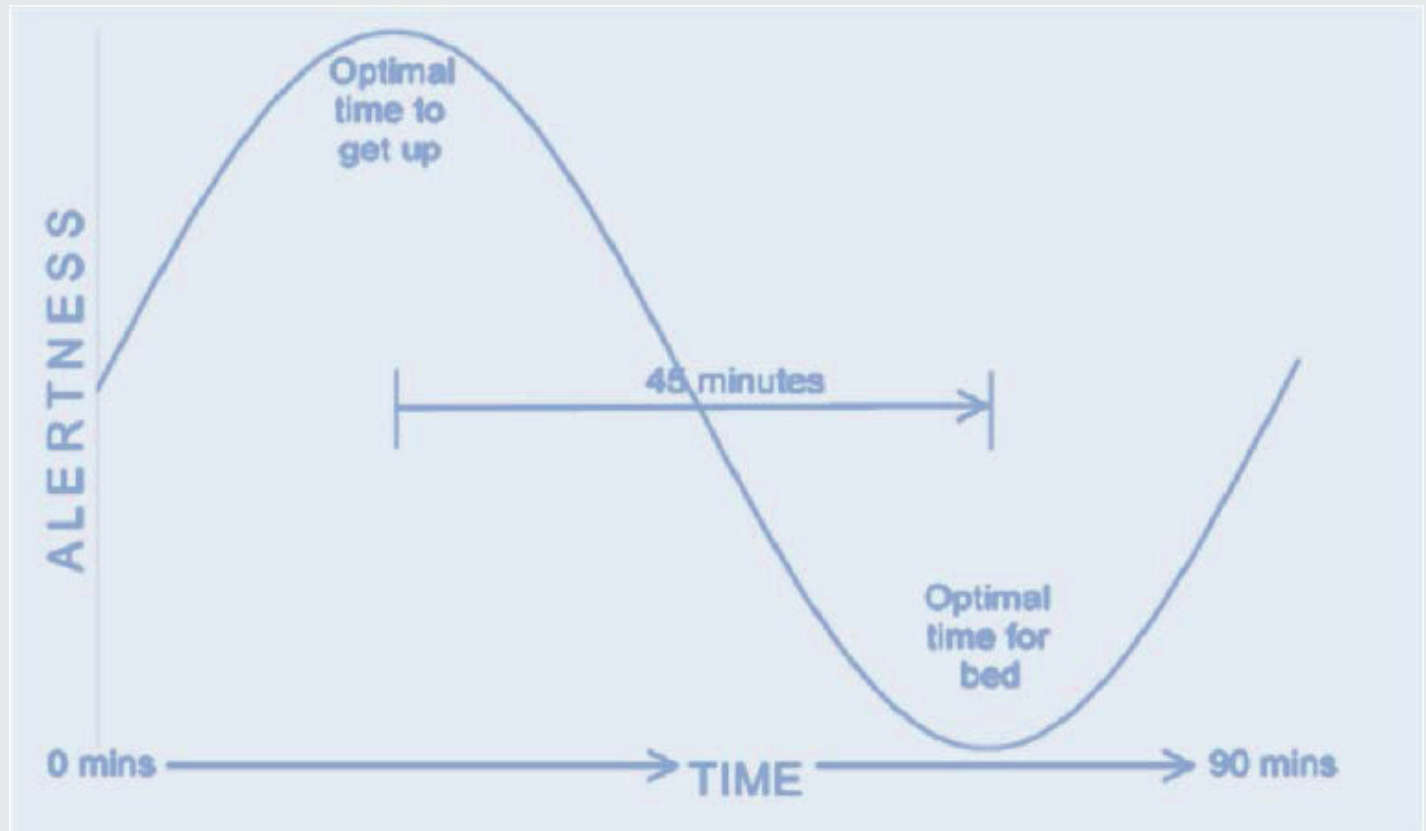
The sleep cycle consists of being Awake, Stage N1, N2, N3 and Rapid Eye Movement (REM) Sleep. As you drift off to sleep and move through each stage you fall deeper into sleep. The cycle then moves back to lighter sleep and wakefulness. You are moving towards a lighter sleep when you enter the REM stage when you are dreaming. The deeper stages of sleep are collectively known as non-REM or Slow Wave Sleep (SWS).



Starting on a weekend, try to add an extra hour or two of sleep a night. Remove the alarm clock from the bedroom.

Go to bed when you are tired and allow your body to wake you in the morning. Expect to sleep for upwards of 10 hours a night at first but after a while the amount of time you sleep will gradually decrease to a normal level. Don't worry if you only manage five or six hours or you have two or three nights of 4.5hrs then sleep well on the fourth night. This may be your normal sleep pattern. You may find a sleep diary beneficial.

Using the ultradian cycle below establish the right time for you to retire and rise each day. A yawn is an indication that you are heading towards a dip in your cycle. Catch yourself yawning through the day then make a note of the time and by calculating in 90 minute cycles from the time of the big yawn, you can work out your optimal time to go to bed so that you are not lying awake struggling to drift off to sleep.



Hypersomnia

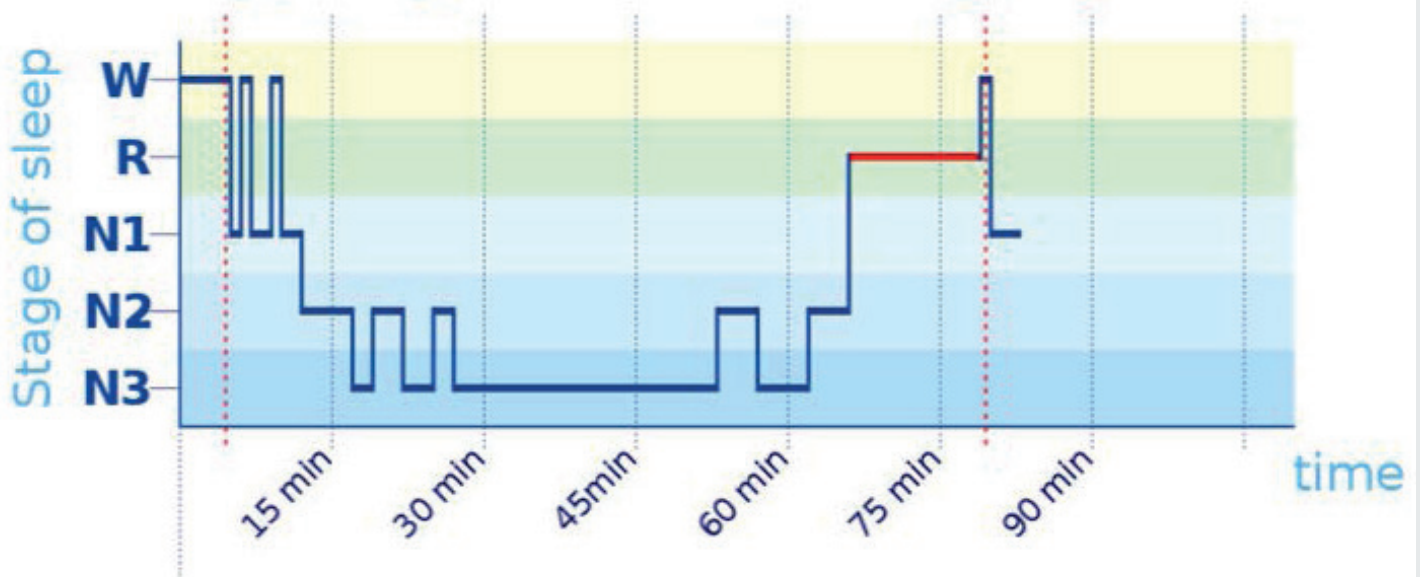
Following an injury or illness it is often assumed that if you don't get a good night's sleep, you can catch up with it by sleeping through the day. This might be beneficial in the first few days but very quickly our body clocks fall out of kilter and we find that we are sleeping through the day and wide awake at night.

Oversleeping or hypersomnia is not as common as not getting enough quality sleep but can be just as harmful as sleep deprivation. It is important to try to establish a healthy routine as soon as possible after your injury. If you have suffered months of disrupted sleep however, you will have built up a significant sleep debt, so expect recovery to take several weeks.

Developing a healthy sleep pattern

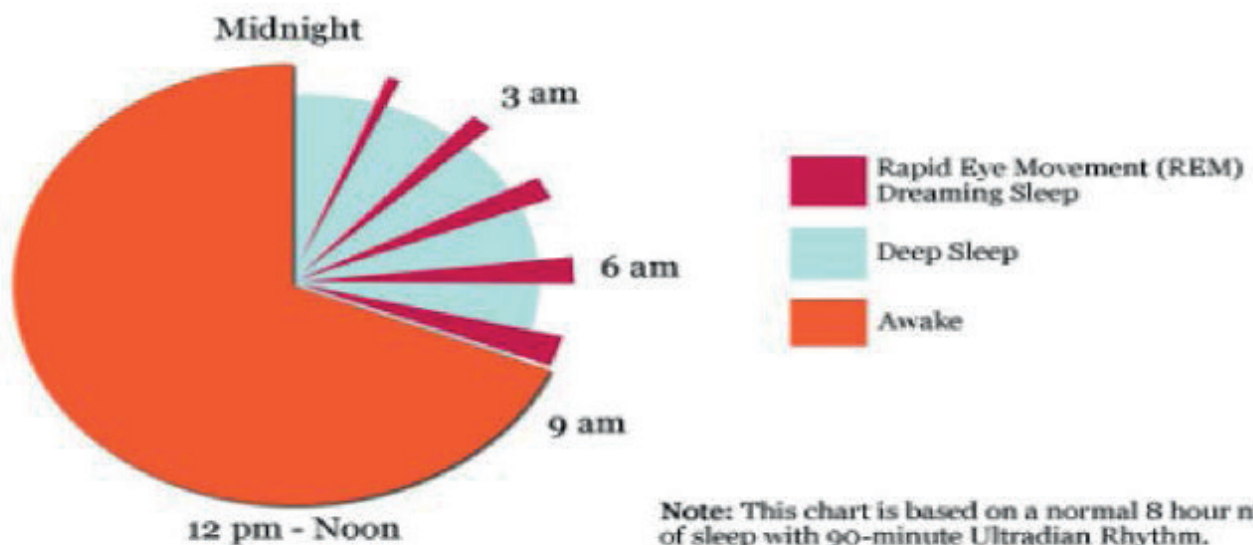
Prepare the scene; de-clutter the bedroom, remove all devices that emit blue light such as a TV, game console, phone and tablet. Invest in some ear plugs if your sleep is disrupted by noise. It is not always necessary to invest in a new mattress and pillows but if they are worn and uncomfortable it might help. Fresh, clean bedding and a tidy bedroom will help to tire you and create a relaxing atmosphere. The body temperature drops during sleep so avoid overheating the bedroom, open the windows to let fresh air into the room but close them an hour before going to bed. The room should be cool but not cold to enable you to comfortably drift off to sleep. Black-out curtains are particularly useful if you have bright street lights outside the house or during the summer months.

Hypnogram one sleep cycle



Circadian Rhythm

24 hour - sleep/dream cycle



Note: This chart is based on a normal 8 hour night of sleep with 90-minute Ultradian Rhythm.

www.LucidDreamExplorers.com/dreamscience

REM sleep and non-REM sleep consists of a 90 minute cycle in most adults. This pattern continues during sleep and is illustrated in the Hypnogram above.

You can see from both diagrams that you have regular periods of varying length of deep sleep and wakefulness throughout the night. If you find yourself waking frequently throughout the night it may be that you are passing through this phase and if you don't worry too much about it, you should be able to drift back off to sleep again naturally.

Common barriers to good sleep

We now know that the secretion of Melatonin by the pineal gland in response to darkness is an important mechanism in maintaining the circadian rhythm of the sleep-wake cycle. Exposure to electronic media and screen light prior to sleep onset may be a factor in the significant frequency of sleep disorders.

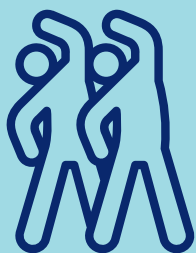
Additional contributing factors include caffeine found in coffee, tea and 'energy' drinks, alcohol and cigarette smoking. If you are experiencing sleep problems it is recommended that drinks containing caffeine should not be drunk after midday to reduce the stimulant effect and induce natural sleep. Alcohol may help some people to go off to sleep but it prevents you reaching the deep restorative sleep (SWS) which results in waking dehydrated and unrested. Nicotine is a stimulant which raises the blood pressure and heart rate making it difficult to drop off to sleep. If you are unable to stop smoking, try to avoid smoking in the two hours before bedtime. In addition, milk and dairy products are difficult to digest. To avoid indigestion keeping you awake at night it is advisable to avoid eating meals after 7pm and make up your warm bedtime drink using the instant variety with hot water rather than milk.



If you are waking up in the night to use the bathroom, try to drink less liquid in the evenings before you go to bed.

If possible, avoid drinking too much in the evenings especially in the two hours before you go to bed.

Exercising early in the day is great for overall health but close to bedtime will raise the blood pressure, heart rate and body temperature which will also prevent sleep.



Try not to exercise in the two hours before you go to bed.

There is very little reliable research that states how frequently you should change your mattress, aside from those promoting the sale of their own mattresses. Your bed could be more than 10 years old but very comfortable so there is no need to change it. If your bed is uncomfortable and the mattress is worn then it may be worth investing in a new one. The same can be said of pillows and bed linen, if they are comfortable, clean and seasonally appropriate.

The temperature in the bedroom should be comfortable. You are more likely to induce sleep in a cooler room than one that is too warm. An overheated bedroom is a common barrier to sleep. Some people find enjoying a warm bath helps them to sleep but it might be wise to allow your body to cool down a little before getting into bed to avoid lying awake in bed.

The amount of time between lying down to sleep and the onset of sleep is known as sleep latency. The average adult falls asleep within 30 minutes of going to bed. Delayed sleep phase or sleep latency type problems are defined by initiation of sleep significantly later than the desired bedtime. The shortened sleep time is often then associated with difficulty awakening in the morning.



References and resources used to write this booklet:

The Great British Bedtime Report 2017

NHS Choices UK/insomnia/2018

Hobson JA, Pace-Schott EF (September 2002). "The cognitive neuroscience of sleep: neuronal systems, consciousness and learning". Nat. Rev. Neurosci. 3 (9): 679–93. doi:10.1038/nrn915. PMID 12209117.

David R Lee (2017) Teaching the World To Sleep. Routledge

Sleep Unlimited (sleepunlimited.co.uk) 2018

Sleep Genius (sleepgenius.com) 2018

LucidDreamExplorers.com/dreamscience 2018

Carol Vivyan 2009–2015 www.get.gg 2010

Zurich Insurance Company Ltd

A public limited company incorporated in Switzerland. Registered in the Canton of Zurich, No. CHE-105.833.114, registered offices at Mythenquai 2, 8002 Zurich. UK Branch registered in England and Wales no BR000105. UK Branch Head Office: The Zurich Centre, 3000 Parkway, Whiteley, Fareham, Hampshire PO15 7JZ.

Zurich Insurance Company Ltd is authorised and regulated in Switzerland by the Swiss Financial Market Supervisory Authority FINMA. Authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Our firm reference number is 959113.

Communications may be monitored or recorded to improve our service and for security and regulatory purposes.

© Copyright – Zurich Insurance Company Ltd 2023. All rights reserved. Reproduction, adaptation or translation without prior written permission is prohibited except as allowed under copyright laws.