

THE WELLNESS HUB

SLEEP

Mental wellness every day



SLEEP

Sleep is an evolutionary enigma and not completely understood by scientists. It is known to be a vital function for our endocrine, immune and metabolic system, but it mostly benefits the brain (1). Every day we are exposed to billions of thoughts and sensory information, processing 120 pieces of information every second. Mostly, it is insignificant and filtered out (can you remember what you had for lunch 3 weeks ago?). Anything useful requires processing in a different way in order to create a memory or a neural pathway forming a habit. This takes place during slow-wave sleep or deep sleep. Another important cycle is REM sleep, which allows us to process our emotions. This is an important stage otherwise we would be dwelling on EVERY argument- that's some heavy baggage to manage on a daily basis! (2)

The combination of the phases of sleep helps us to awake feeling relaxed and mentally refreshed. In other words, emptying the bucket to have perspective and be productive. There are other stages of sleep, but there is little to be gained from understanding them in this context.

Sleep patterns vary according to your age and gender. Inevitably, children require substantial sleep because they are constantly learning, making sense of the world and growing. Just 40 minutes less than required sleep can affect behaviour and learning (3).

During the adolescent years, more sleep is required and there is a shift to sleeping and waking later. Approximately every 7 years until the age of 25 our brains have a major reset, clearing out unwanted memories and learning (do you need to remember how to walk?). Such behaviours no longer require conscious deliberate thoughts as they become as natural as breathing (4).

Difficulty sleeping is a primary indicator of deteriorating mental wellness. This could be a combination of small irritations or dwelling on bigger events. Either way, you toss and turn as sleep evades you finally drifting off only to be abruptly awoken for no apparent reason. Does this sound familiar?

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Sleep becomes fixed at approximately 25 years old. However, the amount of sleep YOU need is as unique as you are. In terms of gender, men begin to lose slow-wave sleep at approximately the age of 34 and women, at 53. This contributes to the earlier demise of men than women. It is thought that evolution has ensured women survive longer to nurture the young. This might explain why men struggle to remember information (slow-wave sleep creates memory). However, this does not mean the quality of life for women is any better. On the contrary, women are more likely to suffer from dementia and Alzheimer's (5).

Lack of sleep not only reduces cognitive function but also increases the likelihood of early death (6).

To improve sleep it is helpful to evaluate actions before sleep, during sleep and upon waking to maximise the quality of sleep. This is often referred to as *sleep hygiene*. The following guidelines should not be used verbatim but applied to your personal circumstances. It is advisable to do this for 2 weeks to ensure you have addressed any anomalies and identify patterns.

If your sleep is disrupted due to external factors (babies, unexpected loud bang etc) it is possible to gain up to 50% of the lost REM sleep the following night. The following guidance is often referred to as sleep hygiene and can assist with improving the quality of sleep. Some are obvious but worth mentioning as poor sleep can be a result of a combination of factors.

Following that, there is a sleep diary. It is recommended that you record your sleep patterns in the diary for a minimum of 2 weeks and make 1 incremental change every week. This will help to establish what improves your sleep and what prevents it.

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Sleep Hygiene

- 1) The bedroom should be dark; even a small amount of light can be disruptive.
- 2) Sleep cycles are usually 90 mins long and consist of light sleep (nodding off), deep sleep (healing/growth) and REM sleep (mental processing). A fixed wake-up time can help the body and brain to prepare to wake up approximately 90 minutes before doing so. This can help you feel refreshed when you awake (7).
- 3) 'Quieten your mind' to achieve good sleep prior to bed. Do not engage your mind in problem-solving or negative media. Instead, listen to guided hypnosis/ meditation. 20 minutes of self-hypnosis or relaxation helps to activate the parasympathetic nervous system and also increase deep and REM sleep (8).
- 4) Disengage from all devices approximately 45 minutes prior to bed. No laptops, tablets, e-reader, smartphones, helping to reduce blue light exposure. This also supports the above (9).
- 5) Many experts say the ideal temperature is 16-18C (dependent on personal preference). During sleep, the body needs to lose heat- if the room is too hot or you are too hot under the duvet it can cause a night of disturbed sleep. The same is also true if you are too cold (10).
- 6) Are you a 'lark' or an 'owl'? Waking up refreshed is important. If you are an evening person and you awake before your natural propensity to, you then may experience 'sleep inertia (grogginess), for between 15 minutes and 2 hours after waking.
- 7) Avoid excessive alcohol before bed. It causes drowsiness, dehydration and reduces REM sleep, therefore, disrupting sleep (11).
- 8) Get the right amount of sleep for you - if you function at a high level during the day, you are probably getting enough sleep, but if you feel sleepy the next day then you are not getting enough sleep.
- 9) If your sleep disturbance is caused by your partner (snoring or fidgeting), you may want to consider separate beds or even separate bedrooms. Not sleeping together (if mutually agreed) is a mature pragmatic solution to a problem.

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Sleep Hygiene Cont'd

10) Don't try to fall asleep- the harder you try, the more it will evade you. If you are awake for more than 30 minutes at the start of the night or 20 minutes during the night, it may be helpful to get up and return to bed when sleepy.

11) Being physically and/or mentally active during the day aids sleep.

12) Ensure adequate exposure to sunlight during the day- sunlight exposure helps maintain a healthy sleep-wake cycle (12).

13) Avoid napping during the day. it can affect your ability to sleep at night. If you are going to nap, a 20-minute nap mid-afternoon will help boost your mental performance (13).

14) Minimise disruptions (parents, unfortunately, I can't help with children!).

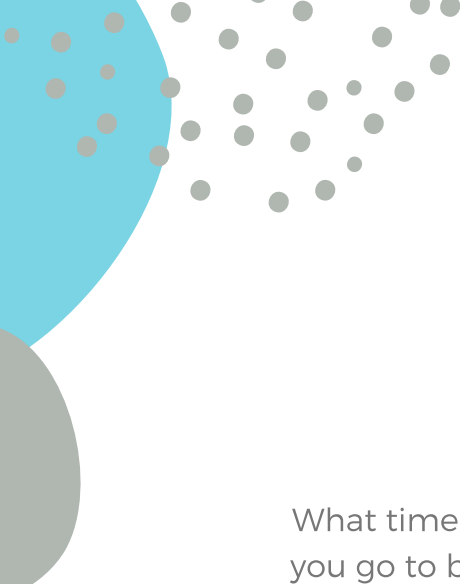
15) Caffeine is a stimulant, but we all have different sensitivities to its effects. If you have problems falling asleep or your sleep isn't restful, it may be useful to avoid caffeinated drinks and see if your sleep improves. Consume a caffeinated drink an hour earlier each time to assess the difference it makes.

16) Exercising in the morning or early afternoon can be helpful to promote sleep. However, invigorating exercise too close to bedtime reactivates 'awake' chemicals.

17) Establish a regular bedtime schedule. Having a 'wind-down routine' can help- there is no hard and fast rule that will work. Creating this habit prepares the mind for sleep and associates the routine with slowing down.

18) Consuming a large meal prior to bed can disturb sleep as can large quantities of fluid. Furthermore, a diet high in saturated fats was found to be linked to reduced REM sleep (14).

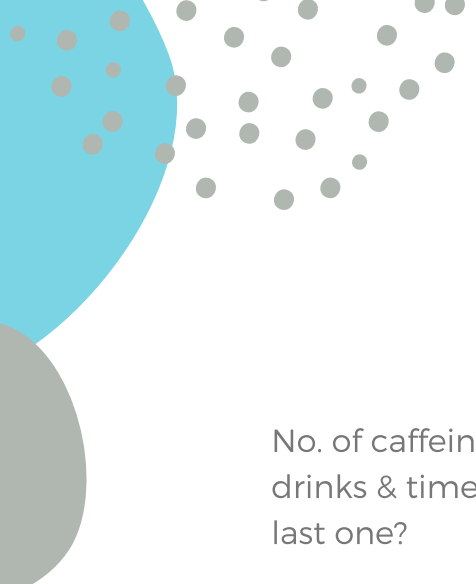
Below is a weekly diary - the aim of completing the diary is to help identify settling behaviours and the impact of those that may require change. It should be completed in 2 stages - when you awake and when you go to bed. It is recommended that you complete this for 2 weeks to identify patterns including environmental triggers.



WORKSHEET

SLEEP HYGIENE-MORNING

	What time did you go to bed?	What time did you wake up?	How many hours slept in total?	No. of times awoken during sleep?
MON				
TUES				
WED				
THUR				
FRI				
SAT				
SUN				



WORKSHEET

SLEEP HYGIENE-EVENING

	No. of caffeinated drinks & time of last one?	Exercise/ movement today? (No. of mins)	Activity an hour before sleep?	Mood today? 0=awful 10=great
MON				
TUES				
WED				
THUR				
FRI				
SAT				
SUN				

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References

- 1) <https://www.sleephealth.org/sleep-health/importance-of-sleep-understanding-sleep-stages/>
- 2) <https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Understanding-Sleep#5>
- 3) <https://www.ncbi.nlm.nih.gov/books/NBK19956/>
- 4) <https://doi.org/10.1542/peds.2014-1696>
- 5) https://journals.lww.com/psychosomaticmedicine/Abstract/2008/10000/Impairment_Associated_With_Sleep_Problems_in_the.11.aspx
- 6) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2864873/>
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