

Sleep

The need for sleep cannot be overstated. It is when body and mind are repaired and rejuvenated. Most people sleep 7 to 8 hours a day. Anything from 6 to 9 hours is ideal. Too much, or too little or disrupted sleep can cause problems such as irritability, exhaustion and decreased concentration or reaction time. Alarmingly, it has now be found that people with chronic sleep deprivation may also lose the ability to *even recognise* that their decision making capacity is impaired, so your competency may have reduced without you even knowing it.

Research has indicated that sleep deprived individuals perform at just 9% of their well-rested peers¹. This is alarming, particularly when less than 30% of college students typically achieve the minimum sleep requirement (8hrs) for their age bracket².

It has also been found³ that the average college student's sleep pattern (i.e. going to bed late and rising late) has a direct impact on GPAs – in fact, for each hour of delayed rising, college students were found to reduce their GPA by up to 0.13!

It is worthwhile, then, to consider how you can use sleep as an aid to maximise your university performance.

Memory

Contrary to popular belief, our brains do not “switch off” when we go to sleep; in fact they enter a complex and largely not yet understood stage of recovery and repair. This process is critical in the formation of memories.

Studies now show that the acquisition, consolidation and recall of information is significantly impacted by sleep. Whilst asleep, our brains are able to most efficiently filter through new information and consolidate this to long-term memory. In light of this, you can help improve your memory by:

- Avoiding last minute cramming immediately before a test or exam;
- Not skipping sleep to maximise your study time, as this information will likely only be retained in short-term or working memory; and
- Having a 90minute nap which is shown to improve performance by 10%.

So consider how you can use sleep as a study tool.

Health

The benefits of sleep on our physical health are widely researched. Sleep has been found to:

- Improve blood pressure
- Suppress appetite hormones and support weight loss
- Reduce chances of diabetes
- Reduce the risk of inflammation (such as arthritis and heart disease)
- Improve the immune system
- Increase pain threshold
- And overall, increase life longevity.

Consider how you can help your body relax into sleep by:

- Eating to sleep! Our bodies convert the amino acid tryptophan into the hormones serotonin and

melatonin (key sleep hormones). Tryptophan can be found in foods containing calcium (such as milk, yoghurt or cheese) and protein/complex carbs (oats, peanut butter sandwiches and almonds). Conversely, avoid spicy foods, alcohol, high fat/sugar and caffeinated drinks a few hours before bed.

- Consider warm milk or herbal tea instead, but do empty your bladder before going to bed!
- Whilst feeling warm and snug can make us feel sleepy, it is actually the process of our core body temperature cooling down that allows us to transition to a deep sleep cycle. Incorporating a relaxing shower or bath into your bed routine is a great idea, however, consider doing this at least an hour before bed in order to cool down sufficiently.
- Allow at least 3hrs (ideally 6hrs) between exercising and going to bed. Whilst exercising is a helpful way to promote better sleep, doing it too close to bed risks raising your body temperature and producing endorphins which can make it difficult to switch off.
- Make sure your room is well ventilated and cool – around 16°C is ideal.
- Consider using ear plugs if you are disturbed by external noise, or using a relaxing audio track if the silence is distracting.
- Don't habitually take sleeping tablets as this can impair your body's natural circadian rhythm.
- Rather than a harsh, bright light, switch to subdued soft lighting in the evening to induce sleep as this mirrors a normal day/night cycle. Avoid blue and white light from computer screens, phones or tablets.
- An afternoon nap may be very tempting, however this can interrupt your circadian rhythm, making it harder to fall into a deep, restorative sleep overnight.

Attention/Learning

Academic performance has been found to be significantly impaired by poor sleep. These impairments have been found to affect learnings from both lecture-based and practical experiences. Research has indicated that sleep deprivation can produce ADHD-like symptoms, and also impair creativity and processing speeds. Students who achieve good quality sleep are 3 times more likely to attend classes regularly and fall asleep less often whilst in class².

Enhance your chance of getting to class on time by establishing a good sleep routine; aim to go to bed and get up at a similar each day.

Make a written list of the things you need to get done the next day so you don't have to spend time in bed worrying about them.

Protect your right to sleep and practice reframing it in your head as a tool to help you study/be a good friend, rather than seeing sleep as something that takes time away from other aspects of your life.

Try to use your bed for sleep rather than study, to create a clear distinction in your mind. Set up your study area to be neatly organised and therefore more enticing for study.

Mental Health

Poor quality or inadequate sleep has been found to contribute to experiences of depression and anxiety – particularly amongst medical students. It has also been associated with feelings of anger, confusion, fatigue, stress and tension. Good sleep, on the other hand, has a positive impact on our stress hormones (i.e. the reduction of cortisol and adrenaline).

Consider how the following can support your mental wellbeing:

- Help yourself switch off before bed by having “sleep cues”; have a shower, use a lavender or chamomile hand wash, drink herbal tea, do some light reading and limit use of social media. Stop doing study related tasks at least 30 minutes before getting into bed.
- Place clocks/phone outside arm’s reach to avoid ruminating on your lack of sleep!
- If you have been lying awake for more than 20 minutes, get up and go to the toilet/have a drink of water/read something light for 5 mins and then try again. This process will help “reset” your mind and help cool your core temperature.
- Read something light while sitting up in bed. Avoid “page-turners” that make you more alert.
- Practice mindfulness before bed to help quieten your thoughts. If you are feeling particularly stressed, a mindfulness activity using your senses (rather than your thoughts) might be easier. For example, engage fully in your sensory feedback whilst having a shower: can you feel the individual drops of water on your skin, does the water gurgle loudly or quietly as it goes down the drain, what does your body wash smell like, how does the steam feel as it opens up your air-ways? etc.
- Schedule “worry time” during the day to avoid having to ruminate on this when you are trying to sleep. If these thoughts keep popping up, keep a pen and notebook near your bed so you can write them down and then ideally let them go. Talk about your worries to a friend, family member or counsellor instead of keeping them to yourself.

Sleep Mantra

When you want to sleep, say the following to yourself over and over again in time with every four breath cycles: “Go to sleep, completely at peace, the whole night through”.

Go to <i>Breathe in</i>	sleep <i>Breathe out</i>	completely <i>Breathe in</i>	at peace <i>Breathe out</i>
the whole <i>Breathe in</i>	night <i>Breathe out</i>	through <i>Breathe in</i>	(silence) <i>Breathe out</i>

If you would like more assistance to improve your quality of sleep, make an appointment with a psychologist from UNE Student Counselling and Psychological Services (CAPS) (Ph: 02 6773 2897).

References:

¹Pilcher JJ, Huffcut AI. Effects of sleep deprivation on performance: a meta analysis. *Sleep* 1996; **19**:318-26.

²Lund HG, Reider BD, Whiting AB & Prichard JR. Sleep patterns and predictors of disturbed sleep in a large population of college students. *Journal of Adolescent Health* 2010; **46**:124-132.

³Trockel MT, Barnes MS, Egget DL. Health-related variables and academic performance among first-year college students: implications for sleep and other behaviours. *J Am Coll Health* 2000; **49**:125-30.