



A Primer on Sleep

Sleep deprivation is one of the most commonly reported areas of dissatisfaction for many working adults. Not getting enough sleep impacts multiple areas of our life: energy levels, mood, appetite, motivation, concentration and efficiency. When we are sleep deprived we are more likely to feel stressed and feel emotional. Our work is likely to be affected, as is our ability to respond effectively to distressed workers and negative emotions in the workplace in general.

The Sleep Cycle

It is useful to have an understanding of general information about sleep and the sleep cycle.

- The average adult needs approximately 6-9 hours of sleep. Consistently sleeping less than 6 hours per night can lead to a range of health consequences, and consistently sleeping more than 9 hours can create excessive lethargy and fatigue.
- We have 2 main types of sleep: (1) REM (rapid eye movement) sleep is characterized by dreaming and is the state in which restoration of our brain and body functions occurs, including energy conservation and memory consolidation; and (2) non-REM sleep is characterized by 4 stages that progressively deepen from light to restful to deep sleep. We cycle through Stages 1, 2, 3, 4 and REM throughout the night. Each complete cycle takes approximately 90 minutes, and throughout the night we increasingly spend a longer period of time in REM sleep (which leads to sleep feeling “restorative” or restful).
- Sleep patterns may be impacted by a range of factors, including stress levels, low mood and depression, anxiety, physical health conditions, medications, and worry about sleep.
- The good news is that our bodies are very resilient and can recover from chronic sleep debt within a few days to a week.

Common Sleep Problems

The following are the most common sleep problems. If you experience any of the following symptoms, speaking to your family doctor to seek assistance is recommended.

- **Insomnia** is characterized by difficulty falling asleep, difficulty staying asleep and/or early-morning awakenings. Individuals with insomnia feel unrefreshed upon awakening and fatigued during the day. The most effective treatment for insomnia is cognitive-behavioural therapy (CBT) that focuses on thoughts/worries about sleep and behavioural sleep patterns (and their impact on emotional state).



- **Restless leg syndrome** is a sensory disorder characterized by an irresistible urge to move one's legs (and sometimes arms) due to uncomfortable, tingling or "creeping" sensations. Treatment includes reduced intake of caffeine, nicotine and alcohol; iron replacement; exercise and stretching; and warm baths or cold packs.
- **Narcolepsy** is a rare sleep disorder characterized by frequent periods of sleepiness (both gradual and sudden sleep attacks), sometimes associated with cataplexy (muscle weakness). Treatment includes stimulant pharmacotherapy and stress management.
- **Obstructive sleep apnea** is a common but underdiagnosed, possibly life-threatening sleep disorder that primarily impacts men who are overweight, have a thick neck girth, and are heavy snorers. The primary feature of obstructive sleep apnea is a partial blockage of airways causing abnormal breathing patterns and sleep disruptions (e.g., repeatedly stopping breathing in the night). Treatment includes weight loss, minimization of alcohol intake and use of a *continuous positive airway pressure* (CPAP) machine while sleeping.

Mood, Worry & Sleep

Excessive worry is one of the largest contributors to poor sleep. Targeting worry (and other mood issues) can lead to significant sleep improvements.

- If you are having trouble identifying contributors to your sleep problems, it can be helpful to keep a sleep diary for 1-2 weeks (e.g., track your diet, work and leisure activities, level of stress, and bed/wake times). A sleep diary can help reveal patterns and factors that are impacting sleep.
- Depression and anxiety are the most common psychological health conditions, and estimates indicate that anywhere from 25% to 50% of adults will be impacted at some point in their life. Untreated depression and anxiety both impact sleep significantly.
- Cognitive-behavioural therapy (CBT) is the most effective treatment for sleep problems, as well as associated mood and worry issues.
 - Worry and anxiety are a normal part of life, but are among the strongest factors that impact sleep. If you find worries are preventing you from sleeping, it can be helpful to keep a "worry log" – get out of bed, write down your worries, and ask yourself 3 key questions ("What is the evidence for this worry?"; "What is the problem to be solved?"; and, "What can I do about it right now?").
 - Relaxation strategies (e.g., breathing from your diaphragm, visual imagery, progressive muscle relaxation) can help with sleep onset and maintenance.



Effective Sleep Habits

Good sleep habits go a long way toward promoting restful sleep. Here are some tips to consider:

- Having a consistent, fixed wake-up time (even on days off!) is one of the most important factors in building a consistent sleep pattern. Expose yourself to outside light (e.g., open curtains or blinds) upon waking to encourage your body to adjust quickly to wakefulness.
- If you are having sleep problems, do not nap! Naps can interfere with the restorative value of night-time sleep. A good strategy can be to avoid a nap and get into bed earlier that evening.
- Do not have caffeine after 12pm or 1pm (the half-life of caffeine is 5 hours – 5 hours after having caffeine, 50% of the caffeine is still left in your body; it takes another 5 hours to again reduce the caffeine by half, to 25%).
- Do not smoke or exercise 2-3 hours before bedtime.
- Even one drink with alcohol can interfere with sleep quality and make sleep less restorative.
- Create a relaxing bedtime routine; drink decaffeinated tea or warm milk or take a warm bath. Make a clear distinction between daytime (alert) activities and bedtime (relaxing) activities.
- Make your bedroom environment comfortable and conducive to sleep (e.g., use a comfortable pillow and bedding; keep the room temperature moderate; darken the room).
- Restrict use of your bed to 2 activities – sleep and sex. Do not watch TV, eat, talk on the phone, argue, or use your computer while in bed.
- If you can't fall asleep within 15-20 minutes, get out of bed and do not get back into bed until you are *sleepy* (not just tired).

Melatonin, Jet Lag & Medications

- Sleeping medications (prescription and non-prescription) are typically recommended to only be used intermittently, for a short duration (5-10 days). Extended use may lead to drug tolerance, dependence, withdrawal effects, side effects, and rebound insomnia (where sleep problems after ceasing medication become worse than they were prior to taking the medication). Never mix sleep medications with alcohol, and always ensure you have allowed for at least 7-8 hours to sleep after taking medication.



- Melatonin is the key hormone that increases sleepiness (melatonin secretion is higher in the dark, and decreases with light exposure). Some people with sleep problems can benefit from taking melatonin 30 minutes to 1 hour before bedtime. You may want to speak to your physician about whether taking melatonin may be helpful for you.
- Jet lag refers to disruptions in the body's internal biological clock (circadian rhythms) due to crossing time zones. Some strategies for minimizing jet lag include:
 - Adjust to the new time zone 2-3 days before travel (e.g., shift bedtime, wake-time and mealtimes).
 - Ensure you are getting adequate sleep before travel (as a pre-existing "sleep debt" makes jet lag worse).
 - Minimize alcohol.
 - Adjust meals and bedtime to the new time zone as soon as possible.
 - Due to the gastrointestinal impact of jet lag, it can be helpful to drink plenty of water and eat small, frequent, healthy meals when travelling.

Please note that this information is not intended to be a substitute for medical advice. You should seek the advice of your physician or other appropriate medical professional if you have questions or concerns about your particular situation.