

Shift Work and Sleep Health

Impact of shift work

- Shift workers experience misalignment between their body-clock (circadian) pacemaker and the timing of sleep, wake, work and other activities.
- Shift work disorder is common with insomnia, reduced sleep and excessive sleepiness.
- These abnormalities impair cognitive function, alertness and mood and increase accident risk.
- Metabolic syndrome is also common in shift workers, resulting in increased cardiovascular risk.

Practical tips for night-time shift workers

- Optimal shift schedule is important, allowing adequate time for recovery sleep and minimising extended duration shifts.
- Aim to have at least 7 hours of sleep per 24 hours.
- Initiate your main sleep episode as soon as practicable after evening or night shift.
- Nap for 30 minutes to 2 hours before evening or night shifts to supplement main sleep episode.
- Nap for 20–30 minutes during night shift to help maintain wakefulness, particularly for high-risk occupations (eg, driving).
- Keep your bedroom quiet and dark, use earplugs and eye masks if necessary.
- Increase your exposure to bright light during evening/first half of a night shift.
- After a night shift, avoid exposure to bright light; eg, use sunglasses or blue-light blocking glasses.
- Melatonin (1–2mg) is effective in promoting daytime sleep.
- Caffeine can be used to promote alertness. High-frequency (eg, hourly) low-dose caffeine administration (eg, 30–40mg - about one cup of tea or half a cup of instant coffee) is effective. High doses should be avoided close to daytime sleep.

Medical support

- Prescribed alertness-enhancing medications may be beneficial in managing shift work disorder – consult your doctor and avoid non-prescribed drugs
- Sleep and mood disorders (eg, shift work disorder, sleep apnoea, insomnia, depression) occur more often for shift-workers. See your doctor to discuss management and possible treatment if you have sleep problems or notice changes in your mood or functioning.
- Health and wellbeing factors should also be addressed as a part of a clinical management plan with particular attention to cardiovascular (heart) and metabolic (diabetes) health.

Facts about sleep

How much sleep do we need?

Sleep to some extent adapts to an individual's circumstances and needs. Sleep needs vary from person to person. The average amount of sleep for an adult is about seven to eight hours, but sleep needs can range from five to ten hours per day. The need for sleep declines by about an hour and a half in people aged from their twenties to their seventies.

Judgement on whether we are getting enough sleep depends on how well we feel and function during waking. If we do not feel sleepy and fatigued, then our sleep is adequate, even if it is not the average length of time.

Most of the restorative effects of a night's sleep come during the first three to five hours when most deep sleep occurs. Some researchers have called this core sleep. Research shows it is possible to function normally during the day if you obtain this type of sleep. Research also shows that people with insomnia typically obtain their core sleep every night despite believing they have obtained much less sleep.

No-one functions at peak levels everyday and within a day, we all have variations in performance and mood. For example, it usually takes 20-30 minutes after waking to feel reasonably alert. It is also normal to feel drowsy after lunch-time. Even after a sleepless night, people normally cope quite well even while feeling tired. A good sleep period usually puts us right back on track.

Consequences of losing sleep

Most people assume that loss of sleep causes their mental and physical abilities to decline. Although sleep loss can temporarily reduce our performance and feelings, our abilities are unchanged. Research on sleep deprivation shows that the body has a remarkable tolerance for sleep loss and can restore our feelings and best performance following recovery sleep.

Reduction of sleep results in:

- fatigue, exhaustion, lack of energy
- daytime drowsiness mainly during mundane activities
- tendency to become irritable
- impaired memory and concentration.

Sleep can tolerate being denied or reduced over several days. Sleep pressure will inevitably build up and increase the chances and ease of falling asleep. It is this increased sleep pressure that interferes with our motivation to do anything other than sleep and interferes with tasks we try to complete in competition with this sleep pressure.