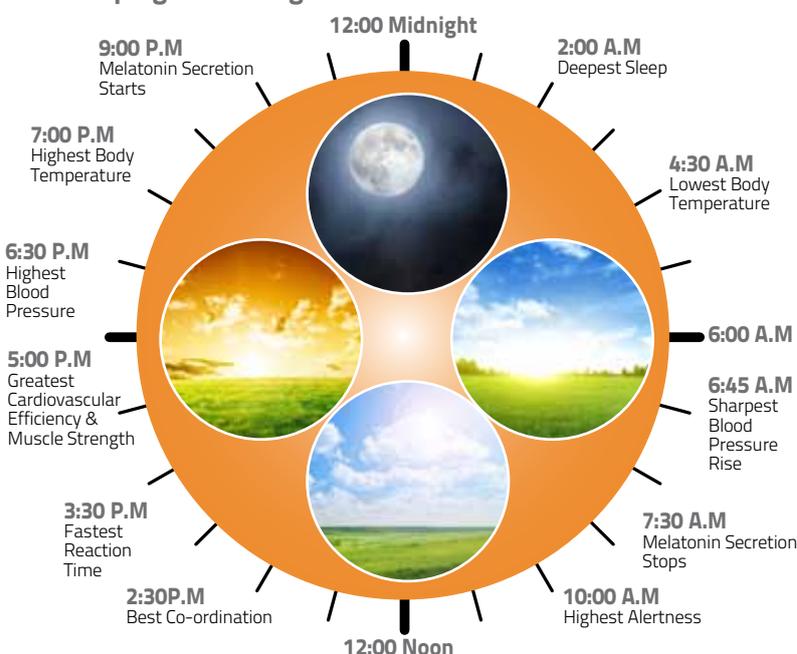


Shift workers often face challenges in relation to their sleeping patterns and eating habits. This is because our bodies have evolved to operate in a certain way - to be asleep during the night and awake during the daylight hours.

This is known as the Circadian Rhythm, which controls our sleep, body temperature, digestion, heart rate and blood pressure to keep our bodies synchronised through the day-night cycle. Working shifts can work against the body's natural programming, particularly in relation to sleeping and eating.



Why don't we sleep as well on shift?

Our bodies have evolved to require 1 hour of sleep for every 2 hours awake to provide the appropriate time for physical and psychological restorative healing, hence the average sleep time recommended is 8 hours a day.

The sleep-wake cycle has also evolved for humans to be awake during the day light hours and to sleep at night. The brain subconsciously monitors the amount of light you see, moment by moment. In the evening, when the light starts to wane, your brain notices and prompts the release of a chemical called melatonin, which gives the body the signal to fall asleep. Overnight, melatonin levels remain high to keep you asleep. They drop at daybreak to encourage you to wake up and remain low during the day, being replaced other chemicals which are designed to keep you awake during the day.

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In addition, the body's internal temperature also follows the circadian rhythm - it increases through the day reaching its maximum temperature in late afternoon. It is at its lowest level in the early hours of the morning. The tendency to fall asleep and stay asleep occurs when the body's internal temperature is decreasing which is most pronounced between midnight and 4am. We sleep best when the body temperature is lower and as the body temperature rises, it is more difficult to stay asleep. This is one of the reasons why night workers who try to go to sleep at 8am as soon as they get home off shift find it difficult to do so.

The experts believe that it takes about 10 continuous days of working night shifts for the body to fully adjust to being awake through the night. However, working split shifts, or shift rotations of less than 10 days, puts the body clock out of kilter causing potential sleep problems as levels of melatonin (the hormone regulating sleep) do not quickly synchronise to new sleep times after shift changes.

For night shift workers daytime sleep can be 1.5-2 hours shorter than sleep at night (due to the body's temperature rising during the day; external factors such as daylight; and social responsibilities/activities).

For day shift workers night time sleep may not always be as refreshing as it could be as the body likes to be asleep around 4am and early shift starts mean that many workers have to be up at 4am to accommodate breakfast and commuting.

Why don't we sleep as well on shift?

Because our bodies have evolved to be awake during daylight hours and asleep during night time hours our digestive system is pre-programmed to be relatively inactive during the night. Cortisol is a hormone produced by the body to aid the metabolism of carbohydrate (our primary food source for the production of energy)

