

Impact of Night Shift Work on Sleep and Health

Individuals who work regular night shifts such as 11 PM to 7 AM must adapt to sleeping during the day and be awake and alert during the night hours. The night shift workers make up 20% of the urban global workforce. Almost half of the night shift workers report falling asleep at work. Even when they want to sleep during the daytime to catch up on sleep debt, they are unable to sleep for long hours. The night shift workers, therefore, remain in a perpetual state of sleep deprivation and as a result, suffer significant health consequences.

A study of workers in Japan in 1997 drew attention to the adverse effects of night shift work. The long-term disruption of the natural sleep-wake cycle causes metabolic diseases such as obesity, type 2 diabetes, high blood pressure, and heart disease. These diseases are becoming an epidemic amongst the urban adults who have work and social life schedule similar to that of night shift workers.

Sleep deprivation affects alertness, judgment, and performance. There is an increased rate of motor vehicle accidents amongst night shift workers. Many epidemiological studies also show that night shift workers have a high incidence of breast, colon, and prostate cancer. The sleep hormone melatonin, which controls the circadian sleep cycle, is a powerful antioxidant that inhibits cancer cell growth.

Strategies which can minimize the health risks of night shift work:

- ***Change in lighting.*** Studies have demonstrated that increasing the intensity of light and wavelength towards the blue end of the spectrum mimicking the sunlight makes it easier for workers to adapt to working at night. That may even enhance the ability of workers to sleep better during the daytime.
- ***Strategic use of caffeine.*** It is sensible to consume small doses of caffeine frequently early in the night shift rather than the fewer but more substantial doses of caffeine. The caffeine consumption should discontinue halfway through the night, allowing 5-6 hours between the last caffeine intake and the desired sleep time in the morning.
- ***Sleep hygiene.*** Protect sleep time and pay close attention to the sleep environment, creating a dark, comfortable, and quiet sleep environment at home. Eliminate anything that could disrupt sleep like turning off phones, disconnecting the doorbell, and other physical disrupters.