Guide to Shift Work Disorder

What is shift work disorder? Shift work disorder – also known as shift work sleep disorder – is a condition that primarily affects people who work night, early morning, and rotating shifts. The disorder may cause insomnia when workers attempt to sleep and/or excessive sleepiness while they are at work. Significant sleep loss usually occurs. The average person with shift work disorder loses one to four hours of sleep per night. Shift work is loosely defined as any shift that falls outside the hours of 6 am and 7 pm, including fixed and rotating hours.

What causes it?

- Shift work disorder specifically relates to circadian misalignment related to a work schedule that overlaps with a traditional sleep-wake cycle.
- Insomnia, excessive sleepiness while awake, and recurring sleep loss are the defining symptoms of shift work disorder. In order to receive a shift work disorder diagnosis, patients should report symptoms that occur for at least one month despite attempts to get enough sleep each day.
- Shift work disorder affects people in different ways. For example, someone who works an evening shift may not experience the same symptoms as another worker with an early morning shift.
- The degree to which daytime performance is impaired also varies by patient. Environmental factors such as marriage, family, and social pressures can add to sleep loss from shift work sleep disorder.

Light Therapy and Light Avoidance:

- Bright light boosts alertness and suppresses the release of the sleep hormone, melatonin. Exposure to bright light can keep you awake and delay when you start to feel sleepy.
- Using a bright light box before work or turning up the lights during a night shift may help you feel more awake.
- During periods when you are switching from one type of shift to another, applying bright light therapy in the morning may help you shift your circadian rhythm so you wake up and fall asleep earlier.
- Applying bright light therapy in the evening can shift your circadian rhythm later, helping you adjust to an upcoming night shift.
- Conversely, for times when you need to sleep after a shift that ends in the middle of the day, wearing dark sunglasses when you come out of work may help minimize the sunlight's alertness-promoting effects. Once home, going straight to bed in a dark environment can improve sleep.
- Light can affect your sleep even when your eyes are closed, so it's a good idea to use blackout curtains or eye shades to sleep.

Planned Napping:

- Napping before and/or during a night shift – particularly at the point of peak circadian sleepiness – can help to manage alertness and improve performance.
- Research suggests that a 20 min−30 min nap provides employees with the benefits of rest, whilst reducing the likelihood of entering deep sleep, which can lead to inertia upon awakening and compromise the subsequent sleep period).
- Nevertheless, employees may still need 15 min post-nap to regain cognitive faculties before resuming work

Caffeine consumption:

- Like napping, the stimulating effects of caffeine have been shown to decrease sleepiness, reduce the risk of errors, and facilitate cognitive performance in the workplace.
- Regular, low dose caffeine consumption throughout the night shift counteracts performance deficits associated with extended wakefulness; however, consumption too near to the planned sleep period (i.e., < 6 h before) may disrupt sleep quality and duration

Medications

- **Wakefulness Promoting:** Modafinil taken 1 hour before work can help boost alertness during shift.
- **Sleep Promoting:** Melatonin supplementation (0.5-5mg) can help shift workers sleep during the day following a shift and before another night shift.
- **Psychostimulants in ADHD:** For shift workers with ADHD, timing the stimulant to align with work shifts can be helpful. Take the first dose 30-60 minutes before starting a night shift Using extended-release formulations should provide adequate coverage for duration of work day. Avoid taking stimulants to close to planned sleep time. Consider shorter-acting formulations for shifts that end close to sleep times.