



## More on Fatigue: Body Clock Factor

As part of Safety Day: Do the Right Thing in Managing Fatigue, we are presenting a series of short articles to raise your awareness of fatigue and fatigue-related risks as well to give you some ideas and tips as to avoid these hazards and keep you and your family safe.

### Causes of general fatigue

Generally, fatigue is caused mainly due to inadequate "good quality" sleep, sustained physical stress, and/or mental stress. These in turn are caused by two distinct factors:

- Body Clock Factors and
- Work Factors.

If we consider **Body Clock Factors**: human beings are regulated by a 24-hour biological rhythm or circadian rhythm, commonly known as the "body clock". The Body Clock primes us for activity during the day and sleep at night. Thus the human alertness and the physical/mental capability vary with the time of the day.

Most humans need around 7½ to 9 hours of good quality sleep; i.e., undisturbed sleep at night for every 24 hours. Six hours of undisturbed sleep is considered an absolute minimum per day. Although human beings can function with as little as 4 to 5 hours of sleep, they will not be capable of optimal performance.

People who continually get less sleep than that their body requires will accumulate a sleep debt. For example, if a person who requires eight hours of sleep only has six hours of sleep, then this person is deprived of two hours of sleep. If this occurs over four consecutive nights, the person will have an accumulated sleep debt of eight hours. Sleep debt leads to increased levels of fatigue.

Working against the Body Clock will lead to sleep deprivation. Sleep deprivation can also be caused by sleep disorders such as obstructive sleep apnoea (characterized by pauses in breathing during sleep) and insomnia (difficulty in initiating and/or maintaining sleep), which could be due to work-related causes and/or non-work related causes.

### What PDO is doing to manage fatigue caused by body clock factors...

Through Safety Day, the Occupational Health Conference and the many Occupational Health roadshows, PDO is raising awareness among the staff and contractors on the importance of adequate sleep for maintaining and restoring full physical and mental functioning.



### What you can do in managing general fatigue?

- You are discouraged from excessive use of stimulants, such as coffee, tea and energy drinks, which provide only limited short-term relief from the effects of fatigue, but may lead to insomnia.
- Maintain a healthy lifestyle through various strategies including:
  - \* Regular exercise.
  - \* Good nutritional diet.
  - \* Avoidance of alcohol and smoking.

You are also encouraged to seek medical advice for any underlying medical conditions.