

# EXCESSIVE DAYTIME SLEEPINESS

Excessive daytime sleepiness refers to the inability to stay alert during the major awake period of the day, resulting in you falling asleep at inappropriate times.

When sleepiness interferes with daily routines and activities, or reduces your ability to function, it is considered excessive.

This is a prevalent condition. In Singapore, the prevalence of excessive daytime sleepiness has been reported to be nine percent (*Ng TP et al, Sleep Medicine 2005*).



A 'sleep debt' builds until enough sleep is obtained.

## Causes of Excessive Daytime Sleepiness

Causes of excessive daytime sleepiness include the following. It is commonly caused by more than one of these causes.

### 1 Inadequate sleep

The amount of sleep needed each night varies amongst different people.

Most need seven to eight hours of uninterrupted sleep to maintain alertness the following day. A habitual sleep period of less than four to five hours daily is generally insufficient to maintain normal



daytime alertness and is likely to cause excessive daytime sleepiness.

If you do not get enough sleep even on a single night, a 'sleep debt' begins to build and increases until sufficient sleep is obtained. Excessive daytime sleepiness occurs as the debt accumulates. If you do not get enough sleep during the work week, you may tend to sleep longer on the weekends or days off to reduce your sleep debt.

### 2 Sleep disorders

Sleep disorders such as obstructive sleep apnoea, narcolepsy, restless legs syndrome and insomnia may cause excessive daytime sleepiness.

- *Obstructive sleep apnoea* is a potentially serious disorder in which your breathing is interrupted during sleep. This causes you to awaken many times during the night and experience excessive daytime sleepiness.
- *Restless legs syndrome* causes a person to experience unpleasant sensations in the legs. These sensations occur frequently in the evening, making it difficult for you to fall asleep and leading to excessive daytime sleepiness.
- *Insomnia* is the perception of poor quality sleep due to difficulty falling asleep, waking up during the night with difficulty in returning to sleep or waking up too early in the morning.
- *Narcolepsy* will cause excessive daytime sleepiness during the day, even after getting sufficient sleep at night. You may fall asleep at inappropriate times and places.



3

**Medications**

Some medications may disrupt sleep and cause sleepiness. Examples include sedating antihistamines, sedatives, antidepressants and seizure medications.



4

**Alcohol**

Alcohol is sedating and can, even in small amounts, make a person more sleepy and at greater risk of car crashes and performance problems.



5

**Caffeine**

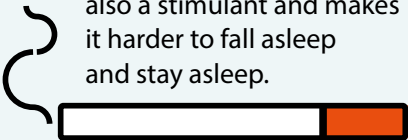
Caffeine in coffee, tea, soft drinks or medications makes it harder for many people to fall asleep and stay asleep. Caffeine stays in the body for about three to seven hours, so even when taken earlier in the day, it may cause problems in falling asleep at night.



6

**Nicotine**

Nicotine from cigarettes is also a stimulant and makes it harder to fall asleep and stay asleep.



7

**Medical conditions**

Chronic medical conditions such as asthma, heart failure, depression, rheumatoid arthritis or any other chronically painful disorder may also disrupt sleep and lead to excessive daytime sleepiness. Excessive daytime sleepiness may also occur following head injury and rarely, due to brain tumour.



8

**Sleep-wake cycle disturbance (such as shift work)**

Most shift workers get less sleep over 24 hours as compared to day workers. The human sleep-wake system is designed to facilitate the body and mind for sleep at night and wakefulness during the day. These natural rhythms make it difficult to sleep during daylight hours and to stay awake during the night hours, even in well-rested individuals.



Sleep loss is greatest for night shift workers, those who work early morning shifts and for female shift workers with children at home. Shift workers who try to sleep during the day are frequently interrupted by noise, light, the telephone, family members and other distractions.

## SYMPTOMS

Signs of excessive daytime sleepiness may include:

- Difficulty paying attention or concentrating at work, school or home
- Poor performance at work or school
- Difficulty in staying awake when inactive, such as when watching television or reading
- Difficulty remembering things
- Need to take naps on most days
- Sleepiness that is noticed by others
- Falling asleep while driving

## DIAGNOSIS

If you feel sleepy during the day despite getting enough sleep, consult your physician who will evaluate the possible causes and advise on the appropriate management. It is important to get proper diagnosis and treatment of the underlying cause of the sleepiness. Your physician may refer you to a sleep disorders clinic for a comprehensive evaluation of your problem.

## MANAGEMENT

Identifying the cause(s) of excessive daytime sleepiness is the key to its management. Treatment is directed towards the specific underlying cause.



Get help if you feel sleepy despite getting enough sleep.

## Self/Home Care

### ★ Get enough sleep

Many people do not set aside enough time for sleep on a regular basis. A first step may be to evaluate your daily activities and sleep-wake patterns to determine how much sleep is obtained. If you are getting less than eight hours of sleep, more sleep may be needed.

A good approach is to gradually move to an earlier bedtime. For example, if an extra hour of sleep is needed, try going to bed 15 minutes earlier each night for four nights, then keep to the last bedtime. This method will increase the amount of time in bed without causing a sudden change in schedule.

### ★ Avoid caffeine

Avoid beverages containing caffeine (coffee, tea and some soft drinks). Caffeine may help to reduce sleepiness and increase alertness but the effect is temporary. Caffeine can cause sleep interruptions and exacerbate sleepiness.

### ★ Avoid alcohol

While alcohol may shorten the time it takes to fall asleep, it can disrupt sleep later in the night, leading to poor quality sleep and worsened daytime sleepiness. Chronic use of larger quantities of alcohol can also lead to alcohol dependency.

For enquiries, contact SingHealth Duke-NUS Sleep Centre at:

**Singapore General Hospital** Tel: 6321 4377

**Changi General Hospital** Tel: 6850 3333

**Sengkang General Hospital** Tel: 6930 6000

**KK Women's and Children's Hospital** Tel: 6294 4050

**National Dental Centre Singapore** Tel: 6324 8802

**National Neuroscience Institute** Tel: 6321 4377