

SLEEPY HOLLOW

Mumbai Mirror | May 9, 2015, 04.00 AM IST



Mumbai Mirror Bureau

A US study found that daytime sleepiness may be a tell-tale sign of advancing obesity, depression and diabetes. City doctors on why you need to check that yawn.

Do you catch yourself yawning your head off at work? Well, stifling a gaping mouth before your seniors see you is the least of your problems. While it's normal to be drowsy the morning after a late night out, if you

start to see a pattern, even when you get your required dose of six to eight hours of sleep - you could suffer from a condition called Excessive Daytime Sleepiness (EDS).

According to a study conducted by Penn State College of Medicine, EDS could suggest underlying problems like obesity and depression. "Weight loss predicted who was going to stop experiencing daytime sleepiness, reinforcing the causal relationship," said Julio Fernandez-Mendoza, an assistant professor who conducted the study.

In the medical field, there is a widespread belief that if you feel sleepy during the day, it's because you didn't get enough sleep the night before. But Fernandez-Mendoza believes that we should abandon this idea. "This reasoning discounts the vast majority of the population. The main causes of a sleepy society are an obese society, a depressed society and, to some extent, individuals suffering from physiological disorder," he explains.

The big sleep

According to the study, the association between Body Mass Index and sleepiness was independent of sleep duration, meaning obese people may be tired during the day, no matter how much they sleep at night.

The reason? The primary underlying mechanism that makes obese people feel overly tired is likely lowgrade chronic inflammation. Fat cells, particularly from abdominal fat, produce immune compounds called cytokines that promote sleepiness, among other symptoms. "Patients who are obese can have a condition called obesity hypoventilation. When such patients breathe, their lungs don't expand sufficiently. As a result, they are unable to clear carbon dioxide from the body. This leads to high levels

of CO₂ in the blood which can leave them drowsy or excessively sleepy during the day," explains Dr Prashant Chhajed, chief pulmonologist, Lung care and sleep centre, Fortis Hospital.

Dr Manish Motwani, Bariatric Surgeon, who consults at Aastha Healthcare and Hiranandani Hospital says that 30 per cent of all morbidly obese individuals suffer from day-time sleepiness. He explains the connection between being overweight and disturbance in sleep. "When you are overweight, you accumulate fat in the area around the back of your neck. This obstructs the wind pipe and hence, affects oxygen flow to the lungs especially when sleeping. There are several occasions through the night when passage of air is blocked for a few seconds. This disturbs the sleep and leads to fatigue and excessive sleepiness the following day."

Motwani says he has noticed significant improvement in among patients who have lost 30 per cent of their body weight.

While the line of treatment differs based on the severity of the condition, 90 per cent of the cases tend to also suffer from sleep apnea which can be easily identified through a sleep test. "In cases of obesity hypoventilation syndrome, we recommend the arterial blood gas test which evaluates the carbon dioxide percentage in the body. The treatment for which is noninvasive ventilation which assists breathing, and thereby ensures the patient stays alert through the day.

Sleeping with depression

According to the study, depressed individuals also have a high incidence of EDS. Physiologic sleep disturbances, including taking longer to fall asleep and waking up in the middle of the night, explained the reason for daytime drowsiness. "People with depression tend to ruminate. They have difficulty shutting their minds off and are more likely to have elevated stress hormones," said Fernandez-Mendoza, adding, "The mechanism that we believe plays a role here is hyperarousal. Put simply, this means going to bed and being too alert. Here, people with depression feel exhausted but do not necessarily fall asleep during the day."

Researchers also found that a minority of people with EDS have a physiological sleepiness disorder of the central nervous system. "When one is depressed or feeling low, changes occur in the chemicals and neurotransmitters of the brain, leading to the condition," says Chhajed.

Long term effects to be wary of

Feeling overly tired and sleepy during the day can have obvious effects like reducing job productivity, increased chances of error and absenteeism. "It can actually be dangerous for those who drive to work, operate heavy machinery or are around sharp equipment since there is greater incidence of accidents," says Chhajed.

RED FLAGS

Feeling sleepy right after breakfast

Falling asleep during passive activities like reading the newspaper, watching TV

Feeling tired and drowsy despite getting 8 hours of sleep at night

GALLERIES

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