

When Snoring Becomes Serious

Know The Facts on OSA

It has been reported that one fourth of the world's population snores, a common problem depending on one's physiological condition. However some snorers may be at risk of a more severe sleep-related disorder known as **Obstructive Sleep Apnoea (OSA)**. Recent studies suggest that OSA has a strong association to heart disease, primarily **Coronary Artery Disease (CAD)**. Serious OSA may also contribute to hypertension, pulmonary hypertension, strokes, cardiovascular disease and irregularities in glucose metabolism.

What is Sleep Apnoea?

The American Academy of Sleep Medicine (AASM) defines apnoea as the absence of airflow in the nose and mouth for more than 10 seconds during sleep. Further investigation can be carried out in a sleep laboratory, where a patient will undergo an overnight study or at least more than 4 hours to differentiate the types of apnoea they have, and the severity of the patient's condition.

Common Symptoms of OSA



Daytime sleepiness



Loud snoring



Abruptly waking up with gasping and choking



Waking up with a dry mouth or sore throat



Morning headache



Difficulty concentrating



Experiencing depression and irritability



High blood pressure



Sweating at night

Risk factor of OSA



Obesity

An increase in weight of >10kg is linked to increasing severity of OSA because of how fat deposition changes the mouth and throat area.



Being male

Research has consistently shown that OSA is more common in men than women.



Existing upper airway disease

OSA is characterised by repetitive collapse of the upper airway, so existing vulnerabilities can make the disorder more severe.



Being elderly

Bodily changes due to aging can affect the upper airway anatomy and muscle function, causing more obstructions while asleep.



Smoking

The higher risk is related to inflammation of the airway mucosal layers, which can predisposes upper airway collapse.

Cardiac surgical patients

Physical weight changes are a main identified factor of OSA. Research by University Malaya in 2017 investigated the prevalence of OSA in cardiac surgical patients with a larger waistline and shorter distance between their upper and lower teeth when their mouth is open.

61.4% moderate OSA

43.5% severe OSA

79% Male predominance of OSA

60 years old

Average age of male OSA sufferers

61% of elective open heart surgery patients may have unrecognised OSA

Diagnosis

Home Sleep Apnoea Testing (HSAT) has the ability to detect OSA in

82% of adult surgical patients

According to the American Academy of Sleep Medicine (AASM), diagnosis of OSA is confirmed if over 5 obstructive events (apnoeas, hypopneas + respiratory event related arousals) occur in 1 hour in the absence of associated symptoms.

The STOP-Bang questionnaire and portable monitoring device is used to screen and diagnose OSA when patients are admitted to the ward before operation.

Pregnant women

As they also experience increased weight and body mass, pregnant women suffer similar risks as obese people.



The Berlin Questionnaire

which scores the risk level of a patient's apnoea - has a specificity of 86% and sensitivity of 77% in identifying patients with OSA. It has become an accepted form of screening of pregnant women in the second trimester. As pregnancy progresses, symptoms of OSA changes, hence performances of OSA screening questionnaires differ in each trimester.

The prevalence of OSA among women of reproductive age is approximately 0.7% to 5% but remains under diagnosed and understudied.

Studies have shown that the incidence of snoring range from 11.9% in the 1st trimester to 49% in the 3rd trimester of pregnancy.

Low oxygen intake due to episodes of sleep apnoea during pregnancy can compromise foetal oxygenation



leading to chronic hypoxia and diminished foetal growth