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Neurology Care 7 days a Week. Because Your Brain Matters.

Sleep Apnea (Obstructive and Central)

Patient education guide · Sleep Disorders · Madison Neurology LLC

What is it?

Sleep apnea is repeated interruption of breathing during sleep — dozens to hundreds of times per night — fragmenting sleep and starving the body of oxygen. Obstructive sleep apnea (OSA), the common form, is caused by collapse of the upper airway; central sleep apnea involves the brain failing to signal breathing. Untreated, it raises the risk of stroke, heart disease, high blood pressure, diabetes, accidents, and cognitive decline — and treating it is one of the highest-value interventions in all of neurology and medicine.

How does it happen?

OSA results from airway anatomy (crowded throat, large tongue, recessed jaw) plus muscle relaxation in sleep; obesity, age, male sex, alcohol, and sedatives worsen it. Central apnea accompanies heart failure, stroke, opioid use, or high altitude. Snoring with witnessed pauses and gasping is the cardinal clue.

Common symptoms

- Loud snoring with witnessed breathing pauses, gasping, or choking
- Unrefreshing sleep and excessive daytime sleepiness
- Morning headaches and dry mouth
- Poor concentration, memory problems, irritability
- Nighttime urination, insomnia-like awakenings; bed partner reports the pauses

How is it diagnosed?

A sleep study — home sleep apnea testing for straightforward cases, or in-lab polysomnography for complex ones — measures the apnea-hypopnea index (AHI) and distinguishes obstructive from central apnea.

How is it treated?

CPAP (continuous positive airway pressure) is the gold standard: a bedside machine gently splints the airway open — modern masks are far more comfortable than their reputation, and benefits (energy, blood pressure, cognition) are often felt within days. Alternatives include custom oral appliances (advance the jaw — good for mild-moderate OSA), weight loss (substantially improves or even resolves OSA), positional therapy, and newer options: hypoglossal nerve stimulation (an implanted 'pacemaker for the tongue') for CPAP-intolerant patients, and tirzepatide (approved for OSA with obesity). Central apnea is treated by addressing the cause plus specialized devices.

What does the future hold?

Sleep apnea is extremely treatable, and treatment reverses much of the cardiovascular and cognitive risk. The key is finding a comfortable, sustainable therapy — with modern mask options, oral appliances, nerve stimulation, and weight-loss medications, virtually every patient can be treated successfully. Follow-up confirms the therapy is working.

Questions patients commonly ask

Q: I can't tolerate CPAP — am I out of options?

A: Not at all — oral appliances, hypoglossal nerve stimulation, positional therapy, and weight-loss treatment (including tirzepatide) are real alternatives; the goal is finding your workable therapy.

Q: Does sleep apnea really affect the brain?

A: Yes — untreated apnea is linked to stroke, memory decline, and possibly accelerated cognitive aging; treatment improves alertness, mood, and cognition measurably.

Q: If I lose weight, can I stop CPAP?

A: Sometimes — significant weight loss can substantially reduce or resolve OSA; a repeat sleep study answers it definitively.

National support groups & resources

- **American Sleep Apnea Association** — sleephealth.org
- **American Academy of Sleep Medicine — Sleep Education** — sleepeducation.org
- **American Academy of Neurology — Brain & Life patient resources** — brainandlife.org

(Organization contact details were current at the time of compilation; please verify online.)

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