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Sleep apnea key facts and figures

What is sleep-disordered breathing (SDB)?

SDB describes a number of nocturnal breathing disorders:

- Obstructive sleep apnea (OSA)
- Central sleep apnea (CSA)
- Nocturnal hypoventilation
- Cheyne-Stokes respiration (CSR)

What is obstructive sleep apnea (OSA)?

- The most common form of SDB
- A partial or complete collapse of the upper airway caused by relaxation of the muscles controlling the soft palate and tongue
- People may experience apneas, hypopneas and flow limitation
  - Apnea: a cessation of airflow for ≥10 seconds
  - Hypopnea: a decrease in airflow lasting ≥10 seconds with a **30% reduction** in airflow and at least a **3% oxygen desaturation** from baseline
  - Flow limitation: narrowing of the upper airway and an indication of an impending upper airway closure

Normal | **Flow limitation** (airway narrowing) | **Apnea** (airway closed)

Classification of sleep apnea

Apnea-hypopnea index (AHI)

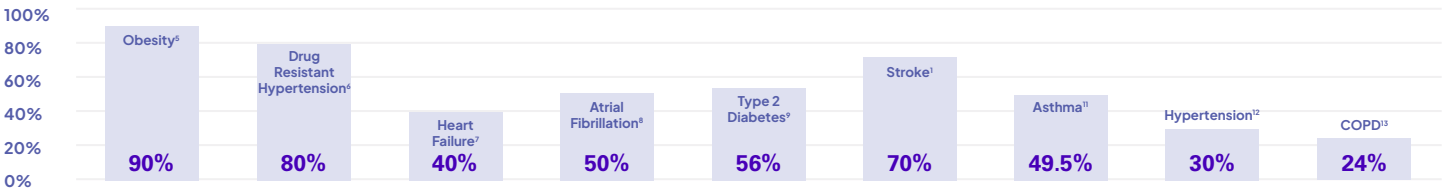
- Number of apneas and/or hypopneas per hour of sleep (or study time)
- Reflects the severity of sleep apnea

AHI: <5	Normal range
AHI: 5 to <15	Mild sleep apnea
AHI: 15 to <30	Moderate sleep apnea
AHI: ≥30	Severe sleep apnea

Prevalence of sleep apnea

- An estimated **1 billion people** have sleep apnea worldwide[1]
- Approximately **85.6 million** adults in the U.S. have obstructive sleep apnea, and about **68.5 million** are undiagnosed[2]
- In the US, about **49 million** have mild OSA, and **19 million** have moderate OSA[2]
- The prevalence of moderate-to-severe sleep disordered breathing is **23.4%** in women and **49.7%** in men[3]
- Incidence of OSA is **3.5× higher** in post-menopausal women[4]
- **More than 80%** of people living with OSA are undiagnosed and unaware they have the condition[1]

Prevalence of Sleep Apnea in Comorbidities



Signs and symptoms of sleep apnea

- Lack of energy
- Morning headaches
- Frequent nighttime urination
- Depression, irritability or anxiety
- Excessive daytime sleepiness (EDS)
- Nighttime gasping, choking or coughing
- Gastroesophageal reflux (GE reflux)
- Irregular breathing during sleep (e.g. snoring)

Increased risk factors for sleep apnea

- Obesity (BMI >30)
- Diagnosis of high blood pressure
- Large neck circumference (>17" men; 16" women)
- Excessive use of alcohol or sedatives
- Upper airway or facial abnormalities
- Smoking
- Family history of OSA
- Endocrine and metabolic disorders

Mortality links

- People with OSA who remain untreated face a significantly higher risk of death—**more than 3 times greater** than those using CPAP therapy[14]
- A 2025 meta-analysis of over 1 million patients showed that CPAP therapy **reduces all-cause mortality by 37%**[15]
- Patients who adhere to CPAP therapy experience significantly better survival outcomes—**up to a 55% reduction in cardiovascular mortality**, and a consistent reduction in major adverse cardiovascular events (MACE) with higher nightly usage[16]

Stroke risks

- OSA patients have more than **twice the risk** of suffering a stroke[17]
- **70%** of stroke patients have OSA[10]

Healthcare costs

- The estimated cost of undiagnosed OSA in the US was nearly $150 billion in 2015[18]
- The total health cost per patient declined $3,418 in year 1 of PAP usage in adherent patients and continued to decrease by $1,179 in year 2[19]
- Consistent use of PAP therapy over 2 years is associated with decreased healthcare resource utilization in patients with OSA and type 2 diabetes[19]
- Obstructive sleep apnea patients who were adherent with positive airway pressure (PAP) therapy had a 25.7% reduction in health care utilization[20]
- An estimated $2,282 USD were saved in healthcare utilization over 2 years for patients that are adherent to PAP, as compared to non-adherent patients[21]

Treatment of OSA with CPAP

- OSA patients who continue therapy throughout the first year have **39%** increased chances of survival, **25%** reduced risk of developing hypertension, and **23%** reduced risk for developing heart failure[22]
- Patients with mild OSA found significant improvements in quality of life after being treated with CPAP[23]
- OSA patients who are adherent to PAP therapy have fewer ER visits and hospitalizations 1 and 2 years after starting PAP therapy[24]
- PAP usage by patients who have OSA and COPD was associated with reduced all-cause hospitalizations and emergency room visits, severe acute exacerbations, and healthcare costs[25]
- OSA patients who use CPAP therapy for at least 2–3 hours/night saw a statistically significant benefit in hospitalization reduction[26]

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