Obstructive Sleep Apnea: CPAP Adherence Matters

Nonadherence to continuous positive airway pressure (CPAP) therapy is a common barrier to treatment of obstructive sleep apnea (OSA). Proper adherence promotes healthy sleep and may prevent costly comorbidities.
**Prevalence of CPAP nonadherence**

The most widely accepted benchmark for adherence to CPAP therapy is use for more than four hours per night on at least 70% of nights.\(^1\) Based on this standard, approximately 46 to 83% of people are nonadherent to their treatment regimen.\(^2\) One study revealed that as many as 31% of people with OSA never begin CPAP therapy at all.\(^3\) High prevalence of nonadherence and undertreatment suggests that there are unmet needs for patients with OSA.

- **Up to 83%**
  - Of people are nonadherent to CPAP therapy.\(^2\)

- **31%**
  - Of people never even begin CPAP therapy.\(^3\)

**Consequences of CPAP nonadherence**

Obstructive sleep apnea is associated with numerous negative outcomes including neuropsychiatric dysfunction, cardiovascular disease, hypertension, liver disease, and fatigue related accidents.\(^4-7\) Most notably, untreated OSA significantly increases the likelihood of cardiovascular events such as heart attack and stroke.\(^8\) Moreover, people who are nonadherent to their CPAP therapy are 2.3 times more likely to experience cardiovascular or pulmonary related 30-day hospital readmission.\(^9\) These factors significantly affect quality of life and may inflate healthcare costs.

- **OSA Related Morbidities**\(^4-7\)
  - Neuropsychiatric dysfunction
  - Cardiovascular disease
  - Hypertension
  - Liver disease

- **2.3x**
  - Increase in cardiovascular and pulmonary related 30-day readmission rate caused by CPAP nonadherence.\(^9\)
CPAP adherence promotes good health

Adherence to CPAP therapy significantly reduces the occurrence of OSA related morbidities. People who are adherent to CPAP therapy see more than a 60% reduction in their daytime sleepiness. Additionally, adherent individuals reduce their systolic and diastolic blood pressure by approximately 2 mmHg, which is associated with a 4 to 8% decrease in stroke and coronary heart disease.

Causes of CPAP nonadherence

Although most patients have a positive outlook on CPAP therapy and its health effects, nonadherence is still widespread. Nonadherence is caused by barriers that prevent patients from initiating or continuing therapy. Some chief barriers are nasal stuffiness, claustrophobia, mask tightness, skin irritation, and fear of disturbing a sleeping partner. Claustrophobia is especially important; one study revealed that 85% of full facemask users felt claustrophobic during CPAP therapy. These data suggest that adherence is affected by factors beyond the patient’s motivation to feel better. Adherence may be promoted by CPAP devices and masks that take these barriers into account.
References


