

# CPAP reduces risk of death in people with COPD and sleep apnea

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A new study suggests that continuous positive airway pressure (CPAP) therapy reduces the mortality rate in people who have both chronic obstructive pulmonary disease (COPD) and obstructive sleep apnea (OSA), which the authors refer to as "the overlap syndrome."

"This study adds to the growing body of literature regarding the combined impact of OSA in [patients with COPD](#)," said lead author and principal investigator Michael L. Stanchina, MD, clinical assistant professor of medicine at the Alpert Medical School of Brown University and physician at Rhode Island Hospital in Providence, R.I. "We have shown that more time on CPAP in patients with the overlap syndrome was associated with a reduced risk of death, after controlling for common risk factors."

The study is in the Aug. 15 issue of the *Journal of Clinical Sleep Medicine*, which is published by the American Academy of Sleep Medicine. It involved a post hoc analysis of 10,272 outpatients. Stanchina's team identified a study sample of 3,396 patients from 2007-2010 who had COPD or OSA. This sample included 227 overlap syndrome patients who had both COPD and OSA. All patients in the overlap group were treated with CPAP therapy, and objective treatment compliance data were collected for the first one to three months of use. Seventeen patients with the overlap syndrome died.

Multivariate analysis revealed that hours of CPAP use at night is an [independent predictor](#) of mortality (hazard ratio = 0.71) in patients with COPD and OSA. Results show that overlap syndrome patients who use CPAP have a significantly higher survival than those who do not. Even minimal use of CPAP was associated with some reduction in the risk of death, and this benefit increased with more nightly hours of CPAP therapy.

"We were most surprised to find that any level of CPAP use in this cohort, over no use, was associated with some mortality benefit," said Stanchina.

According to the Centers for Disease Control and Prevention, [tobacco smoke](#) is the leading cause of COPD, a disease that leads to airflow blockage and makes it hard to breathe. The CDC reports that chronic lower respiratory disease, primarily COPD, is the third leading cause of death in the U.S.

The AASM reports that obstructive [sleep apnea](#) is a common sleep illness affecting up to seven percent of men and five percent of women. It involves repetitive episodes of complete or partial upper airway obstruction occurring during sleep despite an ongoing effort to breathe. The most effective treatment option for OSA is CPAP therapy, which helps keep the airway open by providing a stream of air through a mask that is worn during sleep.

**More information:** "Impact of CPAP Use and Age on Mortality in Patients with Combined COPD and Obstructive Sleep Apnea: The Overlap Syndrome," *Journal of Clinical Sleep Medicine*, 2013.

Provided by American Academy of Sleep Medicine

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