

# CPAP provides relief from depression

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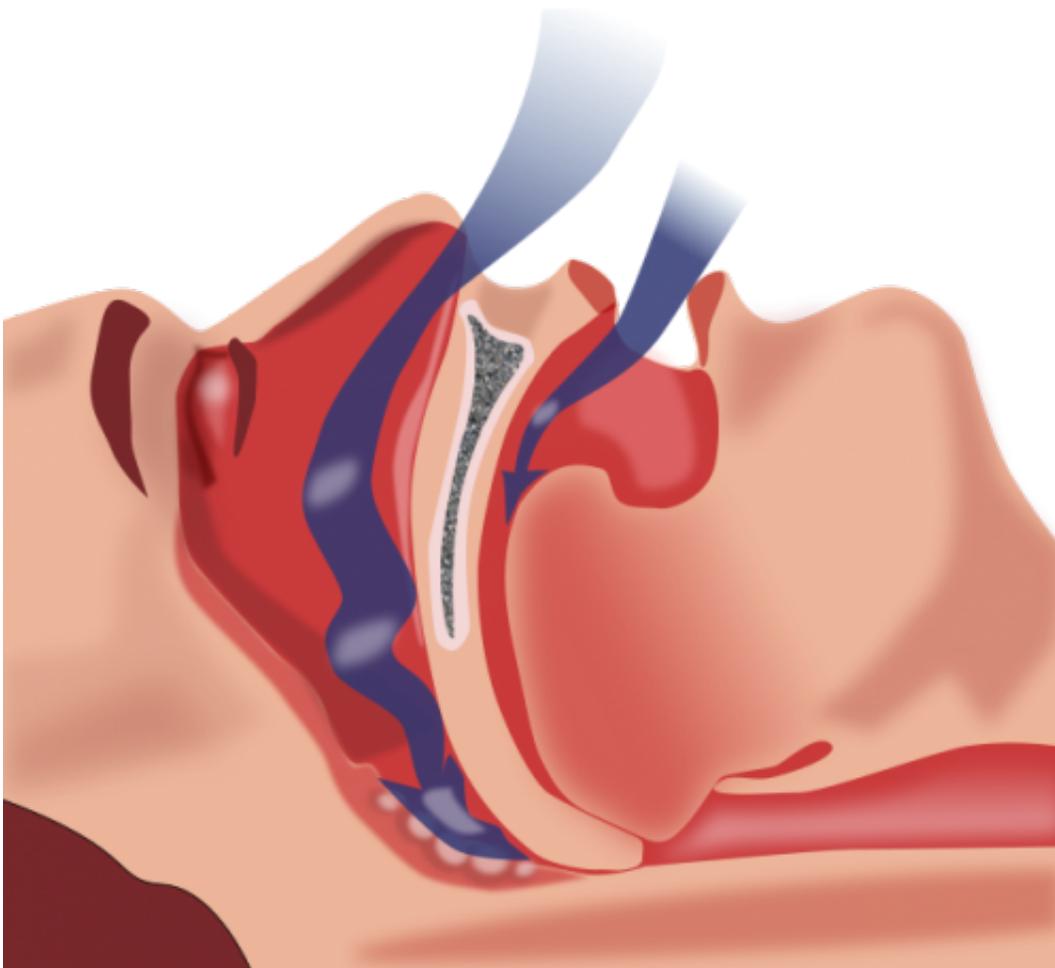


Illustration of obstruction of ventilation. Credit: Habib M'henni / public domain

Researchers have found that continuous positive airway pressure (CPAP) treatment of obstructive sleep apnea (OSA) can improve

depression symptoms in patients suffering from cardiovascular diseases.

Using data from the Sleep Apnea Cardiovascular Endpoints (SAVE) trial led by Flinders University, the new study has found a [significant decrease](#) in cases of [depression](#) after patients received CPAP treatment for their [sleep apnea](#).

This is by far the largest trial of its type and one of very few studies reporting such an effect, says Professor Doug McEvoy from Flinders University.

From detailed analysis of the SAVE data, Flinders University experts and collaborators at the George Institute have found that CPAP for moderate-severe OSA in patients with cardiovascular disease has broader benefits in terms of preventing depression, independent of improved sleepiness.

Prior studies investigating the effect of CPAP on mood with various experimental designs and length of follow-up periods have yielded heterogenous results.

"Patients who have had a stroke or [heart attack](#) are prone to suffer from low mood and are 2 to 3 times more likely to develop [clinical depression](#), which then further elevates their risk of future heart attacks and strokes," says SAVE principal investigator Professor McEvoy, a senior author in the paper just published by The Lancet in *EClinicalMedicine*.

With up to 50% of patients with CV disease likely to have OSA, the study is "welcome news that treatment of OSA substantially relieves cardiovascular patients' depressive symptoms and improves their wellbeing".

The paper's first author, Dr. Danni Zheng, from the George Institute for

Global Health (UNSW), says the 2687 OSA patients enrolled in the SAVE trial were based solely on their history of cardiovascular disease and not on their current mood status.

"After following them for an average of 3.7 years, we found that CPAP provided significant reductions in [depression symptoms](#) compared with those who were not treated for OSA. The improvement for depression was apparent within six months and was sustained."

As expected, those with lower mood scores to start with appeared to get the greatest benefit.

"Our additional systematic review which combined the SAVE study findings with previous work provided further support of the treatment effect of CPAP for depression," Dr. Zheng says.

**More information:** Danni Zheng et al. Effects of continuous positive airway pressure on depression and anxiety symptoms in patients with obstructive sleep apnoea: results from the sleep apnoea cardiovascular Endpoint randomised trial and meta-analysis, *EClinicalMedicine* (2019). [DOI: 10.1016/j.eclinm.2019.05.012](https://doi.org/10.1016/j.eclinm.2019.05.012)

Provided by Flinders University

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