

Restricting calories may improve sleep apnea, blood pressure in obese people

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Restricting calories may improve obstructive sleep apnea and reduce high blood pressure in obese adults, according to a study presented at the American Heart Association's High Blood Pressure Research Scientific Sessions 2014.

Provided by American Heart Association

People with sleep apnea may experience pauses in breathing five to 30 times per hour or more while sleeping. It prevents restful sleep and is associated with high [blood pressure](#), arrhythmia (abnormal heart rhythm), stroke and heart failure.

In a 16-week randomized clinical trial, researchers analyzed 21 obese people 20-55 years old with a history of sleep apnea. Researchers instructed one group to reduce their calorie intake by 800 calories per day, while another group continued their current diet. Researchers found those in the calorie-restricted group had fewer pauses in breathing during sleep, lower blood pressure, higher levels of oxygen in their blood and a greater reduction in body weight. .

"This study suggests that in obese patients with [obstructive sleep apnea](#), moderate energy restriction can reduce not only body fat but also the severity of obstructive sleep apnea," said Marcia R. Klein, M.D., Ph.D., co-author of the study and adjunct professor in the Department of Applied Nutrition at Rio de Janeiro State University in Brazil. "So moderate energy restriction in these patients has the potential to reduce cardiovascular risk.

"Losing weight was most likely the key to all the benefits observed in the calorie-restricted group. A greater reduction in [systolic blood pressure](#) can be explained, at least partially, by the reduction in body weight that was associated with reduction in obstructive sleep apnea severity and sympathetic nervous system activity." Systolic blood pressure is the top number in a blood pressure reading, which measures the force of the blood in the arteries when the heart is contracted.

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