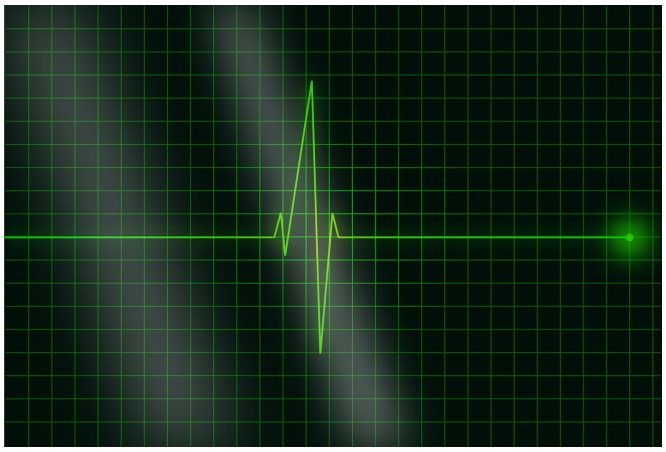
Sleep apnea worsens heart disease, yet often untreated

21 June 2021



Credit: Pixabay/CC0 Public Domain

Health care experts urge increased awareness of obstructive sleep apnea among people with cardiovascular disease or risk factors such as high blood pressure, according to a new scientific statement from the American Heart Association, published today in *Circulation*.

Obstructive sleep apnea (OSA) occurs in 40% to 80% of people with cardiovascular disease, yet it is under-recognized and undertreated, according to the statement. OSA occurs when an upper airway obstruction causes repeated episodes of disrupted breathing during sleep. Symptoms include snoring, lapses in breathing, fragmented sleep and daytime sleepiness. In general, about 34% of middle-aged men and 17% of middle-aged women meet the criteria for OSA.

"Obstructive sleep apnea can negatively impact patients' health and increase the risk of cardiovascular events and death. This statement is to encourage increased awareness, screening and treatment as appropriate for sleep apnea," said Chair of the scientific statement writing group Yerem Yeghiazarians, M.D., FAHA, professor of medicine and the Leone-Perkins Family Endowed Chair in Cardiology at the University of California, San Francisco.

Risk factors for OSA include obesity, large neck circumference, craniofacial abnormalities, smoking, family history and nighttime nasal congestion. OSA is associated with several cardiovascular complications, as detailed in Figure 2 of the statement:

- high blood pressure—OSA is present in 30-50% of people with high blood pressure, and up to 80% of those who have resistant, or hard-to-treat high blood pressure;
- heart rhythm disorders such as atrial fibrillation and sudden cardiac death;
- Stroke;
- worsening heart failure;
- worsening coronary artery disease and risk of heart attack;
- Pulmonary hypertension (PH) – as many as 80% of people with PH have OSA; and
- Metabolic syndrome and Type 2 diabetes.

While there's no consensus that screening for OSA alters clinical outcomes, the high prevalence of OSA among people with cardiovascular disease, along with evidence that OSA treatment improves patient quality of life, are reasons to screen and provide treatment, according to the statement writing group.

"Patients report better mood, less snoring, less daytime sleepiness, improved quality of life and work productivity with OSA treatment," Yeghiazarians said. "In addition, screening advances have changed how we diagnose and treat obstructive sleep apnea. For example, many patients do not have to go to an overnight sleep study center anymore. There are now sleep devices approved by the FDA that patients use at home and send back to their doctor for

assessment. And, while a continuous positive airway pressure (CPAP) machine is one form of treatment, there are numerous therapeutic options—from positional therapy and weight loss to oral appliances and surgery—depending on the cause and severity of someone's OSA."

The authors suggest:

- Screening for OSA in patients with resistant or difficult to control hypertension, pulmonary hypertension and atrial fibrillation that recurs despite treatment.
- Screening for OSA via a sleep study for some patients with heart failure, especially if sleep-disordered breathing or excessive daytime sleepiness are suspected.
- Treating patients diagnosed with OSA with available therapies, potentially including lifestyle and behavior modifications and weight loss.
- When possible, treating patients with severe OSA with a CPAP machine.
- Treating mild to moderate OSA cases with oral appliances that adjust the jaw and tongue placement during sleep to prevent obstructed breathing.
- Routine follow-up including overnight sleep testing to confirm if treatment is effective.

"Improvements in home diagnostic tools and more research on ways to identify cardiovascular risk in people with OSA are needed," Yeghiazarians said. "Still, the overall message is clear: we need to increase awareness about screening for and treating OSA, especially in patients with existing cardiovascular risk factors."

This scientific statement was prepared by the volunteer writing group on behalf of the American Heart Association's Council on Clinical Cardiology; the Council on Peripheral Vascular Disease; the Council on Arteriosclerosis, Thrombosis and Vascular Biology; the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation; the Stroke Council; and the Council on Cardiovascular Surgery and Anesthesia.

More information: *Circulation* (2021). DOI: 10.1161/CIR.0000000000000988