

## Sleep-disordered breathing and heart failure

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### ABSTRACT

Chronic heart failure is an important health problem associated with a high mortality and morbidity. Sleep disordered breathing (SDB) comprises obstructive sleep apnea, when upper airway instability causes mechanical obstruction to breathing; and central sleep apnea, characterized by an absence of ventilatory effort. SDB is common and under-diagnosed in patients with heart failure. Sleep studies of patients with heart failure suggest that sleep disordered breathing is experienced in 50% of patients and is a powerful predictor of poor prognosis. Patients who have heart failure and SDB can be asymptomatic or symptomatic. Symptoms include snoring, excessive daytime sleepiness, and fatigue. The evaluation of patients with heart failure should include questions about potential SDB symptoms. Polysomnography in a sleep laboratory or out-of-center sleep testing is indicated in patients with heart failure who report snoring, excessive daytime somnolence, or poor sleep quality. Diagnostic sleep testing is indicated in patients with nocturnal angina, recurrent arrhythmias, refractory heart failure symptoms, or repetitive oxygen desaturations during sleep. SDB is important to recognize because it is associated with adverse cardiovascular outcomes and mortality, and because treatment of SDB can improve heart failure-related outcomes and quality of life. Heart failure accompanied by SDB is associated with a worse prognosis than heart failure in the absence of SDB. Therapy for patients whose heart failure is complicated by SDB is optimization of the medical management of heart failure because it improves both heart failure-related and SDB-related outcomes. For patients with persistent SDB despite optimal heart failure therapy, continuous positive airway pressure (CPAP) may also improve both heart failure-related and SDB-related outcomes.

### BIOGRAPHY

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