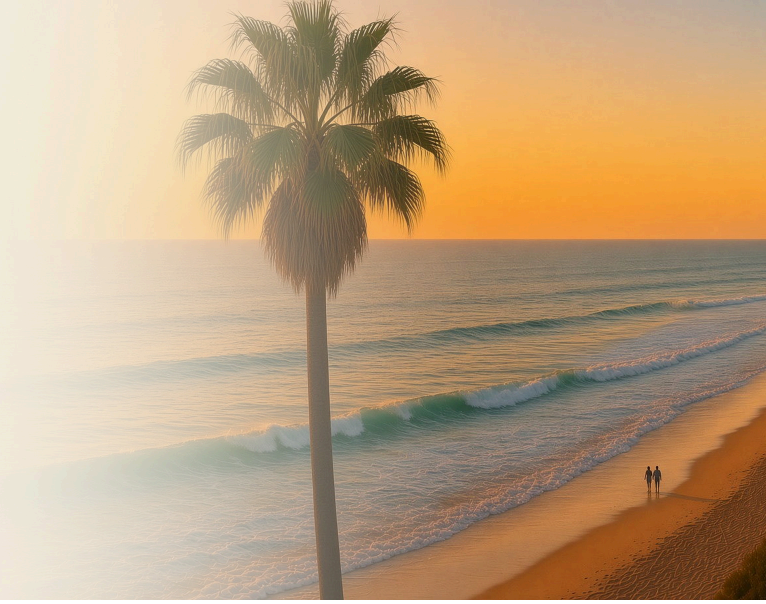
DAMIANRASCH.COM

DAMIAN RASCH, D.O.

ENCINITAS · LA JOLLA, CALIFORNIA



Sleep Apnea and Heart Failure

Why your cardiologist asks about your nights, what a sleep study shows and how treatment helps your heart.

~½ to ¾

of people with heart failure have disordered breathing in sleep, and most don't know it

~2 to 4×

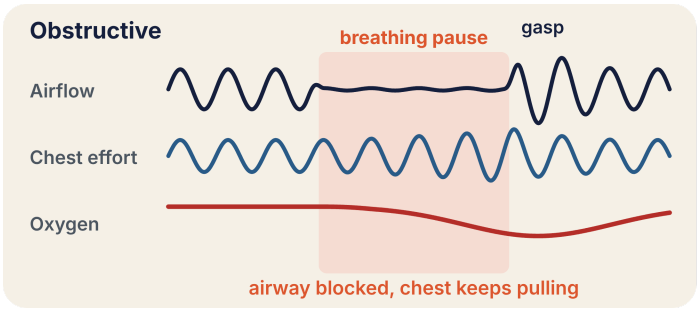
higher chance of developing AFib with severe obstructive sleep apnea

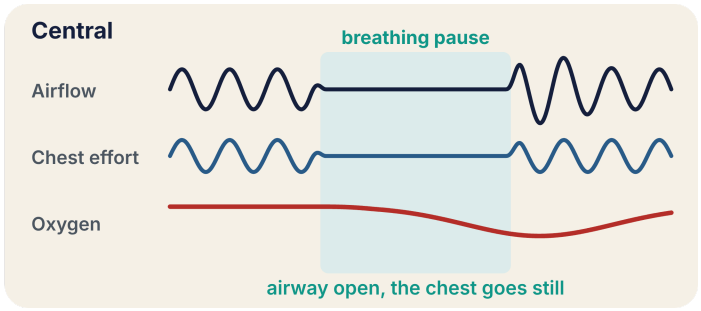
~50%

chance AFib returns within a year of ablation if apnea goes untreated, vs about 25 to 30% when treated

TWO KINDS

Obstructive and central sleep apnea

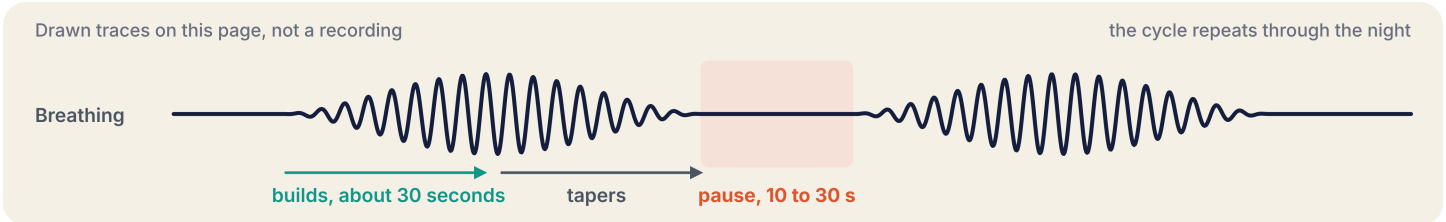




In obstructive sleep apnea (OSA), the airway at the back of the throat collapses as the muscles relax in sleep. Your chest keeps working against it, oxygen drops, and your brain wakes you just enough to take a noisy breath. This can happen dozens or hundreds of times a night. In central sleep apnea (CSA), the airway stays open but the brain stops sending the signal to breathe for a stretch. Many people with heart failure have both, and the two are treated differently.

WHAT A PARTNER MIGHT NOTICE

Breathing that comes in waves



Cheyne-Stokes breathing is a form of central apnea seen often in heart failure. A weak heart moves blood slowly between the lungs and the brain, so the brain gets a late reading of the carbon dioxide level and overcorrects, then undercorrects. People who have it do worse on average. If someone has seen your breathing do this, tell your cardiologist, because it changes which sleep study you need.

Sleep is heart care

Untreated sleep apnea makes heart failure worse, makes blood pressure harder to control and makes AFib more likely to come back. Treating it takes a wrench out of the gears.

TESTING AND TREATMENT

Your sleep study and your options

5 to 14	15 to 29	30 or more
pauses an hour	pauses an hour	pauses an hour
Mild	Moderate	Severe

The study counts full and shallow breathing pauses for each hour of sleep, a number called the AHI. With heart failure, an AHI above 15 usually needs treatment, and a sleep-lab study is more often the right first test, since a home test can miss central apnea or count it as obstructive.

CPAP

the main treatment for obstructive apnea

What it does	A mask delivers a steady column of air that holds the airway open. The pauses go away, oxygen swings smooth out and your sleep stops getting broken up.
What improves	Daytime energy, blood pressure (it tends to drop a few points) and AFib control. Some people with a weak pump gain a little strength over months, and hospital stays tend to fall in users.
When you'll feel it	Some people within a few days of nightly use, most within two to four weeks. Energy and morning headaches respond first, blood pressure and heart measures over months.
Making it stick	It only works while you wear it, and the first two weeks are usually the hardest. If the mask leaks or hurts, push your sleep clinic to fix the fit, pressure, humidity or ramp settings.
Central apnea	CPAP helps some people whose events are mostly central, and many it doesn't. Treating the heart failure itself often reduces central apnea over months.

OTHER OPTIONS FOR OBSTRUCTIVE APNEA

Weight loss	A 10 percent weight drop can lower the AHI by 20 to 30 percent in many people, and a healthy weight sometimes resolves apnea. The drug tirzepatide (Zepbound) is approved for moderate to severe obstructive apnea with obesity. Repeat the sleep study before stopping CPAP.
Sleep position	If apnea happens only on your back, a device that buzzes when you roll over or a wedge pillow can be enough in mild to moderate cases.
Dental device	A custom appliance from a dentist trained in sleep medicine moves the lower jaw forward. Best for mild to moderate OSA or when CPAP isn't tolerated.
Nerve stimulator	An implant, a bit like a pacemaker, that moves the tongue in step with breathing. For selected people with moderate to severe OSA who can't use CPAP.

ASV, A DIFFERENT MACHINE

Who should avoid it	Adaptive servo-ventilation (ASV) varies pressure breath by breath. It should not be used if you have heart failure symptoms with an ejection fraction (pumping strength) at or below 45 percent and mostly central apnea. In that group a major trial found higher rates of death from any cause and of cardiovascular death on ASV, mostly sudden death. Ask which type of heart failure and apnea you have.

ASK ABOUT A SLEEP STUDY

Heart failure plus unexplained tiredness, pauses in breathing someone has seen at night, AFib or blood pressure that won't come down is enough reason for a study. Questionnaires such as STOP-BANG and Epworth often miss central apnea, and you can have apnea without snoring.

READ THE FULL ARTICLE

damianrasch.com/
sleep-apnea-heart-failure

For education only, and not a substitute for advice from your own physician. Sources include the 2022 AHA/ACC/HFSA heart failure guideline, the 2021 AHA statement on obstructive sleep apnea, the 2023 ACC/AHA/ACCP/HRS AFib guideline, AASM guidelines (2017, 2019), SERVE-HF (NEJM 2015) and ADVENT-HF (2024).

DR. DAMIAN RASCH, D.O. · BOARD-CERTIFIED INVASIVE CARDIOLOGIST · ENCINITAS AND LA JOLLA, CA

MADE IN CALIFORNIA