

# Sleep Apnea and Weight Gain: Reasons and Answers

Mar 02, 2016

Tamara Kaye Sellman, RPSGT, CCSH

sleep apnea, sleep apnea and weight gain



You may have noticed that we're big fans of healthy weight management at Sound Sleep Health, and that's no coincidence: we know first-hand how untreated sleep apnea can lead to weight gain and how being overweight can contribute to sleep apnea.

Research shows that up to 80 percent of sleep apnea sufferers are obese. But what about the 20 percent who aren't obese? They also have sleep apnea. So which comes first... Obesity or sleep apnea?

## How weight gain can cause sleep apnea

A person of healthy weight can gain pounds over a short period of time for any number of reasons: pregnancy, medications, sudden change in activity level caused by an injury, a radical shift to a less healthy diet. Some body types include extra weight around the neck which can be affected by weight gain.

As a person adds weight, they might find they don't sleep as well as they used to. They may get up several times a night to use the bathroom, or they might experience insomnia. Their sleeping partners may complain that they snore, though they didn't before. They may wake up with a sore throat or a headache. A trip to the doctor might reveal a spike in blood pressure.

Chances are good they have developed a case of sleep apnea.

## How sleep apnea works

Sleep apnea (or, specifically, obstructive sleep apnea, or OSA) refers to a condition in which the upper airway is partially or completely obstructed while you sleep.

The tissues in the area of the mouth and throat—the tongue, tonsils, uvula, even the fat pads that line the neck—are to blame for these obstructions, either because they are overlarge or swollen. Fatty areas also retain fluids in the body.

Any or all of these tissues can block the airway, which is already relaxed because you are asleep. Pauses in breathing that last at least ten seconds are considered apneas.

Apneas generally result in arousals so that your body can consciously breathe. Someone with sleep apnea wakes up dozens of times over the course of the night. What's worse, patients with untreated OSA face a vicious cycle of events that perpetuate problems with weight management.

- Their sleep apnea leads to sleep deprivation.
- Sleep deprivation leads to daytime fatigue and sleepiness as well as unhealthy food cravings.
- Daytime fatigue and sleepiness leads to low energy, sedentary living, and less exercise.
- Less exercise slows metabolism, making weight loss difficult.

It makes sense, then, that weight gain can lead to developing sleep apnea. However, the reverse cause-and-effect also occurs: Sleep apnea, it turns out, is one of the most dangerous side effects of obesity, if left untreated.

## How untreated sleep apnea can lead to obesity

Sleep apnea and obesity together share common health risks that should not be ignored. Both contribute to hypertension, heart disease, diabetes, stroke, and other chronic health conditions. And sleep apnea leads to sleep deprivation, which may be the way it connects the dots with so many other chronic health problems.

Sleep apnea can lead to obesity because of sleep deprivation. Chronic poor, insufficient sleep leads to chemistry imbalances that make it difficult for the body to maintain a healthy metabolism. Even 30 minutes of lost sleep every night can compromise your metabolism, which is critical to balancing key hormones related to weight management: insulin to balance blood sugar, and two appetite regulators, leptin and ghrelin.

### Insulin

When we don't have quality sleep, our ability to use insulin to manage blood sugar is affected. Also, when we are sleep deprived, our compromised insulin levels lead to a domino effect in which our bodies make less of the hunger-regulating hormone, leptin.

### Leptin

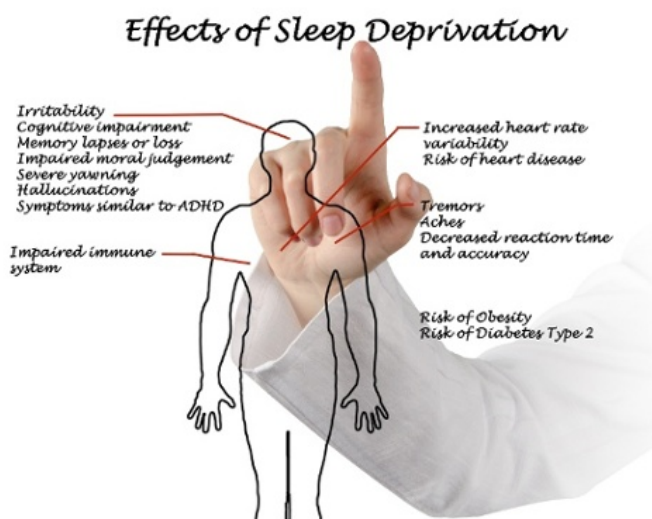
Leptin is the hormone released from our brain that tells us we are full. With fewer leptin signals, we tend to overeat. What's worse, its cousin, ghrelin, begins to be produced in higher than normal amounts.

### Ghrelin

Ghrelin is the hormone released from our brain that tells us it's time to eat. With added ghrelin signals, we are driven to eat more because our hunger drive is actually in overdrive.

## The apnea-deprivation connection

Rather than burn these calories, the sleep deprived body is stressed and decided, instead, to store them as fat. And then the waistline expands, leading to worsened sleep apnea followed by more sleep deprivation followed by more cravings and lower metabolism ...



Studies show a strong correlation between sleep apnea and weight gain based on the reality that untreated sleep apnea causes sleep deprivation.

When this happens, appetites run high, energy runs low, and high-calorie foods loaded with fat and sugar promise a burst of energy to endure low periods throughout the day.

## The REM factor

Rapid eye movement (REM) sleep is the stage of sleep when we can enjoy the rapid burning of calories. Unfortunately, people with untreated sleep apnea rarely get to enjoy good REM sleep, so this becomes yet another lost opportunity to manage good health and weight.

## Will sleep apnea disappear if I lose weight?

Weight loss can alleviate the symptoms of sleep apnea if its causes are due to obesity. In fact, obesity itself is the most treatable cause of sleep apnea, and weight loss not only improves this condition, but many others. Weight loss reverses the metabolic cycle for those who have a long-term, comprehensive plan.

A sleep apnea patient who loses as little as 5 percent of their body weight can expect to find some relief. Even greater weight loss may improve it to the point it disappears.

In one study, almost two thirds of patients showed improvements to their sleep apnea symptoms after following a calorie-restricted diet, so the odds are good that your effort to lose weight will result in healthy rewards like better breathing at night.

If weight loss is less than heroic from the start, don't give up: reduced weight, even by just a few pounds, means you might have more comfort using CPAP, with lower pressures that could make it easier to use more regularly. Regular use of CPAP can help restore the focus and energy you need during the day to keep working to lose those pounds.

Here's one easy way to informally track your progress in a weight-loss effort: measure your neckline. If men can reduce their measurement to less than 17 inches, that's a good thing. For women, 16 inches is the plateau to break.

Finally, it bears mentioning: remember that 20 percent of people who have sleep apnea but who aren't obese? Some people may still have sleep apnea despite weight loss because they have anatomical problems that directly cause their condition, such as a deviated nasal septum or a severe receded chin.

## Will I lose weight if I treat my sleep apnea?

Maybe, but CPAP is not a weight-loss therapy in and of itself. It may take some time to achieve weight loss following a sleep apnea diagnosis. Focusing on getting better sleep first by way of regular CPAP use will help you find the willpower, daytime energy, and focus necessary to achieve your weight loss goals.

At Sound Sleep Health, we work in concert with Sound Medical Weight Loss to help those struggling with [the sleep-weight connection](#). If you are challenged to lose those unwanted pounds, you may wish to consider working with a knowledgeable, trained physician who can help you lose weight and reclaim your health in a safe, healthy way.