**Obesity and Low-T: What's the Connection?**

Of all the things about your body that change as you age, a significant concern to many men is low testosterone (Low-T).

While it’s true that testosterone tends to decline naturally in all men as they age, in some men, Low-T can contribute to fatigue, loss of muscle mass, low sex drive, ED, and even depression, according to the Urology Care Foundation.

**Several things can contribute to Low-T, including:**

- certain underlying medical conditions
- injuries
- infections
- autoimmune disease
- some medications or treatments, such as chemotherapy or antidepressants

One other significant risk factor for Low-T that has become more evident with recent research is being overweight or obese.

**How is obesity tied to Low-T?**

The connection between obesity and low-T presents a bit of a “chicken and egg” situation. Having Low-T can indeed cause a loss of muscle mass, which contributes to being overweight or obese in some men. However, studies have also clearly shown that being obese contributes to low testosterone levels in men. According to Harvard Health Publishing, waist circumference is the strongest individual predictor of testosterone deficiency.
“Studies suggest there is a bidirectional relationship between hypogonadism (low testosterone) and metabolic disorders like obesity,” says Michelle Pearlman, M.D., gastroenterology expert at the University of Miami Health System. “Some research has shown an inverse relationship between waist circumference and testosterone levels (i.e., the larger the waist, the lower the testosterone). Others have shown that low testosterone is associated with increased central obesity, as well, and that testosterone treatment may reduce waist circumference in those with low testosterone.”

**What do the studies say?**

When you look closely at the study results, the relationship between obesity and Low-T becomes even more evident. In a 2007 study of almost 1,700 men aged 40 and over, every one-point increase in the men’s BMI was accompanied by a 2% lower testosterone level. In a similar 2004 study of more than 1,500 men aged 25 to 84, the researchers noted that waist circumference, rather than BMI, seemed to be tied to lower testosterone levels. The link was so strong that the researchers recommended using waist circumference as the preferred measurement for predicting testosterone levels before conducting lab tests.

Testosterone therapy in men with Low-T consistently leads to:

- sustained weight loss
- decreased fat mass
- increased lean mass
• better overall body composition

This was discussed in a 2014 review article that looked at several studies on testosterone therapy. The researchers noted that only bariatric surgery produced sustained and long-lasting weight loss on a level similar to testosterone therapy.

Healthy testosterone levels: An incentive for weight loss?

According to Dr. Pearlman, the jury is still out on whether simply losing weight can produce higher testosterone levels all on its own. Obesity is associated with a number of serious medical conditions. So its role in Low-T is another reason to commit to healthier lifestyle choices and weight reduction. “With obesity, particularly metabolic syndrome, men are at higher risk of developing other serious chronic medical conditions like heart disease, sleep apnea, type 2 diabetes, and certain cancers,” she says.

If you already have Low-T, it can be even more challenging to lose weight without treatment. Concerned about your symptoms? Dr. Pearlman recommends that men who suspect that they might have Low-T reach out to their health care providers. “Regardless of whether they qualify for medication or not, it’s important that men have a health care provider that they can discuss these concerns with,” says Dr. Pearlman. “This will help them determine if or when certain treatments are appropriate, as well as which lifestyle habits they need to focus on improving to reduce their symptoms related to Low-T.”

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Does a plant-based diet affect your testosterone?

Recent years have seen a dramatic uptick in public interest in plant-based diets. This is measured in different ways, including Google search trends for the terms “vegan,” “vegetarian,” and “plant-based”. “Sales of plant-based foods rose 20% in 2018 compared to the year prior,” the authors wrote. Read more.

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