

# Long-term testosterone treatment for men results in reduced weight and waist size

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In testosterone-deficient men, major weight loss was an added benefit of testosterone replacement therapy for most of the patients who participated in a new study. The results will be presented Saturday at The Endocrine Society's 94th Annual Meeting in Houston.

"The substantial weight loss found in our study—an average of 36 pounds—was a surprise," said the study's lead author, Farid Saad, PhD, of Berlin-headquartered Bayer Pharma.

Although prior studies using [testosterone](#) therapy in testosterone-deficient men consistently show changes in body composition, such as increased lean mass and decreased fat mass, Saad said the net effect on weight seemed unchanged in those studies. However, Saad said their study, which took place in Germany, had a longer follow-up by at least two years and used long-acting injections of testosterone.

The investigators restored testosterone to normal levels in 255 testosterone-deficient ("hypogonadal") men, whose average age was nearly 61 (range, 38 to 83 years). Treatment lasted for up to five years, with injections given at day 1, after 6 weeks and then every 12 weeks after that. Patients did not follow a controlled diet or standard exercise program but received advice to improve their lifestyle habits.

On average, the men weighed 236 pounds before beginning testosterone treatment and 200 pounds after treatment (106.2 versus 90 kilograms), the authors reported. Weight loss was reportedly continuous, with an average reduction in body weight ranging from about 4 percent after one year of treatment to more than 13 percent after five years.

In addition, men lost an average of nearly 3.5 inches (8.8 centimeters) around their waist.

"These results are encouraging because studies show that [weight loss](#) drugs and lifestyle interventions have been largely unsuccessful, especially long term," Saad said.

Testosterone deficiency becomes more common with age. Saad said many middle-aged men with testosterone deficiency are obese, explaining that there is "a vicious circle" in obesity and low testosterone.

"Obesity is associated with reduced testosterone, and low testosterone induces weight gain," Saad wrote in the study abstract.

Testosterone replacement is the standard treatment for most [men](#) with symptomatic testosterone deficiency, according to The Endocrine Society guidelines.

In the study by Saad and colleagues, treatment used a slow-release, injectable form of the male hormone (testosterone undecanoate) that is not yet available in the United States. It is marketed in Europe, Latin America, Australia and parts of Asia and Africa.

Provided by The Endocrine Society

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