Erectile dysfunction and quality of life improved with replacement testosterone hormone

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When men don't produce enough of their own sex hormones, they can develop erection problems and other health issues. These men might benefit from a supplemental hormone.

Using testosterone undecanoate replacement therapy improved men's erectile dysfunction symptoms and their quality of life, a new study found.

According to researchers, the findings suggest that men be screened for hypogonadism, a condition in which men produce little or no sex hormones on their own. Particular

attention should be paid to men with erectile and sexual dysfunction, researchers said.

"Get your testosterone levels checked out."

Geoffrey Hackett, MD, from the Good Hope Hospital in Sutton Coldfield, UK, and colleagues looked at how testosterone undecanoate affected sexual function, mood and quality of life in men with type 2 diabetes and hypogonadism. Both hypogonadism and sexual dysfunction are prevalent in men with diabetes, according to the researchers.

The study included 199 men attending a routine diabetes care visit at seven general practices. Participants either had low total testosterone levels of 12 nmol/L or less or free testosterone levels of 250 pmol/L or less.

A little more than a third of the participants had had no sexual activity in the year prior to the study. Half the men were given either 1,000 milligrams of the replacement hormone or a placebo, or fake

hormone, for 30 weeks. After that time, both groups were given open-label medication for a year.

Open-label means both the researchers and patients knew which medicine the patients were receiving. The participants answered questions on their level of erectile dysfunction, aging symptoms, depression, anxiety and quality of life.

The researchers found that testosterone replacement therapy improved all domains of sexual function at 30 weeks, with the first signs of improvement starting as early as week six.

Specifically, therapy significantly improved overall satisfaction, orgasm, intercourse satisfaction and sexual desire. Patients who were older and less obese responded better to the therapy.

About 46 percent of the patients on active therapy felt that the treatment improved their health after 30 weeks, compared to 17 percent of patients on the placebo. The proportion of satisfied patients in the replacement



hormone group increased to 70 percent during the open-label part of treatment.

The improvements in each domain continued up to a year and a half after starting treatment. The researchers found no significant adverse effects.

"These findings suggest that testosterone-related benefits in type 2 diabetic patients may take many months to reach maximum effect and that previous published studies may have used too short duration of therapy," the researchers wrote in their report.

"The presence of depression reduced the response to testosterone in terms of sexual function and [aging male symptoms], but modest improvement in depression was seen with testosterone therapy beyond 12 months," they wrote.

Long-acting testosterone undecanoate has not yet been approved by the FDA though it has frequently been used across Europe, according to Parviz Kavoussi, MD, from the Austin Fertility & Reproductive Medicine and dailyRx Contributing Expert.

"The available testosterone injections are the shorter acting testosterone cypionate and testosterone enanthate," said Dr. Kavoussi, who was not involved in the study.

"A longer acting injectable such as testosterone undecanoate holds a lot of promise with less frequent treatments required and less erratic levels without as much of a roller coaster effect with symptomatic responses," he said.

The researchers noted that patients in the active therapy group could have been more obese with milder cases of erectile dysfunction than patients who received placebo.

Testosterone measurements were also taken immediately before participants had their next treatment. At that point, levels of the sex hormone were probably low to begin with, which could mean the full effects of the therapy were underestimated, the researchers said.

The study, which was supported by Bayer, was published online April 3 in the *Journal of Sexual Medicine*. One of the authors occasionally speaks for Bayer and Lilly.



