## **How Even Borderline Low T Might Affect Your Health**

## Low testosterone at borderline levels tied to depression, obesity and physical inactivity in men

Author: Morgan Jones | Reviewed by: Joseph V. Madia MD, and Beth Bolt, RPh

## Parviz Kavoussi, MD



Parviz Kavoussi, MD is an expert in erectile dysfunction, sexual medicine and male infertility. He is in practice with his infertility specialist father and brother where they pride themselves in being a family that helps others start their families.

www.dailyrx.com/people/parviz-kavoussi-md

(dailyRx News) Even if you're close to having low testosterone but not quite there, you still might encounter some related health problems.

A new study found that men with borderline testosterone levels had high rates of depression and other health problems.

"In clinical practice we certainly see an association with low testosterone and depression. In fact, a lot of psychiatrists have started checking testosterone levels in their patients with depression to find that they have low levels," said Parviz Kavoussi, MD, of Austin Center for Men's Health, a Division of Austin Fertility & Reproductive Medicine.

"I have personally seen significant improvement in mood with testosterone treatments," said Dr. Kavoussi, who was not involved in this study. "This does not necessarily mean that every man with low testosterone and depression will only need testosterone treatment to treat his depression, but it certainly appears to help. Further studies on testosterone replacement's impact on depression are needed."

Low levels of the male sex hormone testosterone have been tied to a number of issues, such as changes in sexual function, physical appearance and emotions.

However, according to the authors of this study, led by Michael S. Irwig, MD, of George Washington University in Washington, DC, there is little research concerning the common issue of "borderline" testosterone levels. In these cases, levels of the hormone are nearing those considered low but are not guite low enough to gualify.

"Over half of men referred for borderline testosterone levels have depression," Dr. Irwig said in a press release. "This study found that men seeking management for borderline testosterone have a very high rate of depression, depressive symptoms, obesity and physical inactivity. Clinicians need to be aware of the clinical characteristics of this sample population and manage their [other health problems] such as depression and obesity."

To explore this topic, Dr. Irwig and team looked at 200 men between the ages of 20 and 77 who had been referred by a doctor as having borderline testosterone levels.

The patients' testosterone levels were measured twice to confirm the borderline status. To measure their depression, the men answered a survey called the Patient Health Questionnaire 9 (PHQ9).

These men were considered depressed if the results of this survey indicated depression — or if they had been diagnosed as depressed or prescribed an antidepressant medication in the past.

Dr. Irwig and team found that 56 percent of the men with borderline testosterone levels had signs of depressive symptoms, had been diagnosed with depression or were prescribed an antidepressant.

These researchers compared this rate of depression to results from different studies that also used the PHQ9 and found it to be significantly higher among the borderline testosterone patients than others.

In one study of primary care patients, the average rate of depression was found to be between 15 and 22 percent. In another study looking at overweight and obese adults, this rate was 5.6 percent.

The borderline testosterone patients were also found to have high rates of some physical health risk factors. Among the patients, 39 percent were overweight, 40 percent were obese and 51 percent reported no regular exercise beyond walking.

The most common testosterone-related symptoms men reported were erectile dysfunction (78 percent of the patients), low sex drive (69 percent) and low energy levels (52 percent).

Dr. Irwig and team stressed that doctors should make appropriate referrals to experts who are able to assess and treat depression in men with borderline testosterone.

Testosterone levels tend to lower with age. Some symptoms of low testosterone may actually be caused by other issues.

This study was presented March 6 at the Endocrine Society's annual meeting in San Diego. Research presented at conferences may not have been peer-reviewed.

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