



Urological Associates, P.C.

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Testosterone Therapy

In this handout you will find important information on testosterone therapy (TT).

According to the Urology Care Foundation, over the past five years, the number of men receiving testosterone replacement therapy has increased. During 2009-2013, a million men filled a script for testosterone injections. Most men who receive TT are between the ages of 40 to 64.

What is Testosterone?

It is a male sex hormone made by the testicles. A number of hormones contribute to a man's physical and mental-health well-being with testosterone playing a big role. Specifically, testosterone is needed for:

- Sexual development
- Sexual functions
- Sperm production
- Muscle strength
- Sex drive
- Deeper voice
- Facial hair growth

What is Testosterone Deficiency Syndrome (TD)?

TD is a blood level of testosterone less than 300ng/dL with any of the below symptoms.

What are the symptoms of Testosterone Deficiency Syndrome?

Some symptoms are more directly linked to low testosterone levels than others.

Stronger connection:

- Lower sex drive
- Loss of body hair
- Less beard growth

- Loss of lean muscle mass
- Continued feelings of tiredness or chronic fatigue
- Obesity
- Erectile Dysfunction (ED)

May or may not be linked to low testosterone:

- Lower energy, endurance, and/or physical strength
- Memory loss
- Decreased ability to focus
- Depression
- Erectile dysfunction

Causes of TD?

It is important to remember that testosterone levels naturally decrease with age. However, about 2 in 100 men have clinically significant low testosterone levels. The following list contains common causes for lower testosterone levels:

- Increased age
- Obesity
- Testicular injury
- Removal of testicles - usually done due to another underlying medical condition
- Chemotherapy
- Radiation
- Congenital (born with) diseases
- Diabetes, especially men with poor control
- Infection
- Pituitary gland dysfunction
- Autoimmune disease
- Uncontrolled high blood pressure

How to determine if you have testosterone deficiency (TD)?

Along with the standard complete medical history and physical, your provider will need to know your total blood testosterone level, this is the most important value. Usually a complete blood count (CBC) is

needed as well. Your provider may run other blood tests depending on your history.

****Additionally, most insurance companies require your labs to be drawn more than once and typically in the AM (before 10:00 AM) prior to covering testosterone replacement therapy**

Treatment Options:

If you and your provider decide to treat your TD, a number of replacement options are available. Pros and cons exist with each replacement route. Talk to your provider!

UAPC offers the following options for testosterone replacement:

- Transdermal (patch on the skin or application of a gel)
- Injection, Intramuscular (IM)
- Oral

Side Effects:

Common side effects of replacement therapy, no matter the route, include:

- Headaches
- Worsening urinary symptoms – such as weak stream, increase in frequency, urgency, nocturia (getting up at night to void)
- Acne
- Enlargement of breasts
- Tenderness of breasts
- Decrease sperm production
- Fatigue
- Irritability or mood swings
- Increased PSA level
- Worsening Sleep Apnea
- With IM injections: pain at injection site

If your side effects are severe or cause significant interference with your daily life, please call the office.

Side effects specific to route of administration will depend in part on your chosen replacement therapy. Talk to your provider and/or nursing staff for more information.

No evidence links TT with an increased risk of prostate cancer.

In addition, no evidence suggests that TT causes clots in your veins, especially in your legs.

The evidence for increase or decrease cardiovascular risk during and after TT is inconclusive. It is important to monitor your overall health, get regular check-ups especially with your primary care provider (PCP), and seek immediate emergency medical care if you are having signs or symptoms of a heart attack or stroke.

Follow-up Needs:

You will need to regularly follow-up with your urological provider along with blood work to monitor your testosterone levels, CBC, and Prostate Specific Antigen (PSA). The provider will direct you on your specific follow-up needs.