

Testosterone Therapy: A Patient Guide



Table of Contents

Testosterone Therapy Patient Education Panel	2
INTRODUCTION	2
GET THE FACTS	3
What is testosterone?	3
What are the symptoms of low testosterone?	3
Other symptoms	3
What causes low testosterone?	3
GET DIAGNOSED	4
How does my doctor diagnose testosterone deficiency?	4
GET TREATED	4
Do I need testosterone therapy?	4
How will my doctor treat my testosterone deficiency?	4
AFTER TREATMENT	5
What should I expect after treatment?	5
QUESTIONS TO ASK YOUR DOCTOR	5
GLOSSARY	5
About the Urology Care Foundation	[back cover]

Testosterone Therapy Patient Education Panel

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Introduction

Over the past 5 years, many more men have been getting testosterone therapy. Between 2009 and 2013, one million men filled prescriptions for testosterone. Most men who take testosterone are 40 to 64 years old.

Having testosterone therapy may sound like a great plan. But is this the right treatment for you? We have some possible answers in this guide. Read it and then talk to your doctor about what is going on with you. Together, you can decide on the next step.

GET THE FACTS

What is testosterone?

Testosterone is the male sex hormone. It is made in the testicles. Hormones are important for physical and mental health. Testosterone is needed for:

- Normal male sexual development and functions
- Growing boys to develop facial hair and deeper voice
- Muscle strength
- Men to make sperm
- Male sex drive

What are the symptoms of low testosterone?

Symptoms more likely to be or directly linked to **testosterone deficiency** (TD) are:

- Lower sex drive
- Loss of body hair
- Less beard growth
- Loss of **lean muscle mass**
- Feeling very tired all the time (fatigue)
- **Obesity** (being overweight)

Other symptoms

Some symptoms that may or may not be linked to TD are:

- Lower energy, endurance, and physical strength
- Poor memory
- Trouble with finding words to say
- Poor focus
- Symptoms of depression
- Not doing well at work
- Erectile dysfunction

What causes low testosterone?

Sometimes testosterone blood levels are low. This is called testosterone deficiency or TD. About 2 in every 100 men may have TD. In general, testosterone levels get lower with age. In younger men, TD occurs in about 1 in every 100 men, it becomes more common as men age. Low testosterone is a blood level lower than 300 ng/dl in combination with any of the symptoms already listed.

Basically, if your testicles make less testosterone than normal, your testosterone level will fall. Your TD may be linked to:

- Aging
- Obesity (overweight)
- Harm to testicles by accident
- Removal of testicles (because of cancer or other reasons)
- Chemotherapy or radiation
- Opioid or antidepressant use
- Medical conditions you may be born with
- Diabetes
- Infection
- **Pituitary gland** disease leading to low hormone production
- Autoimmune disease (when your body attacks its own cells)

GET DIAGNOSED

How does my doctor diagnose testosterone deficiency (TD)?

The most important test for TD is your total blood testosterone level.

If you are worried, you should see your doctor to talk about your symptoms and find out if you have TD. During your physical exam, your doctor will check the following:

- Blood tests for testosterone level, other hormone levels, and red blood cell level (Blood tests may be taken more than once to confirm the findings)
- Your full medical history, including diseases and medications

- **BMI** or waist circumference for obesity
- **Metabolic syndrome** (high blood pressure, high blood sugar, too much body fat around the waist, and high cholesterol levels)
- Hair pattern, amount, and location
- Enlarged breasts
- Whether testicles are present and their size
- **Prostate** size and any abnormalities

GET TREATED

Do I need testosterone therapy (TT)?

You may need TT if you have TD. Like all medication therapy you should know that TT has side effects. You should not take testosterone without seeing your doctor.

Treatment is recommended for:

- Persons born with TD due to diseases such as Klinefelter syndrome
- Persons with sex organs that do not develop as usual
- Damaged testicles
- Blood testosterone level less than 300 ng/dl in combination with symptoms of TD

How will my doctor treat my testosterone deficiency (TD)?

Health changes such as losing weight and exercising more will likely raise your testosterone levels. You may also need to take the testosterone hormone. There are five different ways to take testosterone:

- **Transdermal** (liquid, gel or patch to the skin)
- Injection (short or long-acting)
- Intranasal (through your nose)
- Pellets under your skin
- Oral/buccal (by mouth)

Your doctor will help you make the best choice for you.

During treatment, you should be on the lookout for side effects of TT. Ask your doctor or pharmacist what signs to look for.

AFTER TREATMENT

What should I expect after treatment?

You will need routine health exams to see that your testosterone level has changed and stays normal. If you are stable on TT, total testosterone and certain other lab tests should be checked every 6-12 months.

You may notice that testosterone drug labels warn there is risk of heart disease and stroke. There is no strong evidence

that TT either increases or decreases your risk of these events. But, out of caution, your doctor will check for heart disease and stroke before and sometimes while on TT.

TT may help some symptoms such as low sex drive, lower lean body mass, and/or symptoms of depression. But, there is no strong evidence that TT will help memory recall, diabetes, energy, tiredness, lipid profiles, or quality of life.

QUESTIONS TO ASK YOUR DOCTOR

- Are the symptoms I am having related to TD?
- How common is TD for men of my age?
- What tests will I need to take if I have TD?
- How safe is testosterone therapy (TT)?
- Is TT the best choice for me?
- What side effects should I look for when I am on TT?
- Will over-the-counter medications for TD help me?

GLOSSARY

BMI

Body mass index (BMI) is how we measure body fat based on height and weight.

LEAN MUSCLE MASS

Lean muscle mass relates to the amount of muscle in the body as compared to fat.

METABOLIC SYNDROME

Metabolic syndrome means a group of symptoms seen together (high blood pressure, high blood sugar, high cholesterol and triglyceride levels, and belly fat around the waist).

OBESITY

Obesity is having too much body fat.

PITUITARY GLAND

The pituitary is an important gland in the body. It is often called the “master gland” because it controls many of the other hormone glands. It is located in the head, at the base of the brain.

PROSTATE

The prostate is the male gland that sits between the bladder and the penis.

TESTOSTERONE DEFICIENCY

TD means the body is not making enough of the testosterone hormone.

TESTOSTERONE THERAPY

Testosterone therapy is treatment where medication is given for a low testosterone blood level (usually, if TD is combined with other symptoms). The medication is given by injection, by mouth, by gel through the nose, by pellets under the skin or directly on the skin by cream, patch, or gel.

TRANSDERMAL MEDICATION

Transdermal medication is medication that is put on the skin. Testosterone therapy can be given through the skin by gel, cream or patch.

ABOUT THE UROLOGY CARE FOUNDATION

The Urology Care Foundation is the world's leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts.

To learn more, visit the Urology Care Foundation's website, **UrologyHealth.org/UrologicConditions** or go to **UrologyHealth.org/FindAUrologist** to find a doctor near you.

DISCLAIMER

This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologists or health care provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications.

For copies of printed materials about Bladder Cancer and other urologic conditions, visit **UrologyHealth.org/Order** or call 800-828-7866.

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