



### **How do you diagnose low Testosterone in men?**

Low Testosterone can be diagnosed if you have 3 or more of the following symptoms:

- lack of libido
- fatigue
- insomnia
- erectile dysfunction (ED)
- depression
- loss of muscle mass
- loss of stamina
- hot flashes
- osteoporosis
- migraines
- decrease in mental acuity
- loss of motivation
- osteoporosis
- loss of balance
- irritability

Along with the symptoms, we look for a low total testosterone blood level, such as something below 300mg/ml, or a low free testosterone blood level of less than 129.

### **What Symptoms Do testosterone injections treat?**

When men age, testosterone production declines. This decline has systemic effects on their body. Some of the effects are; low energy, low life drive, slowed cognitive function, brain energy, increased anxiety, increased stress, development of the diseases associated with aging; obesity, high blood pressure, heart disease, increased inflammation, diabetes, osteoporosis, joint damage, autoimmune disease. In order to maintain youthful energy and health you must replace testosterone as it declines with age or disease.

**Where are the injections given?**

They are given in the upper outer hip.

**How long will it take for the injections to work?**

If your total testosterone is below 500ng/dl then it can take 4 to 6 weeks for you to feel your best. If they are above 500ng/dl you may feel better in two weeks. Injections must continue to prevent symptoms from returning.

**Does testosterone cause prostate cancer?**

No. The metabolites of testosterone, dihydrotestosterone and estrone, cause prostate enlargement but the expert in prostate cancer, Dr. Morgantaler has proven that low testosterone levels contribute to prostate cancer and not normal young healthy levels of testosterone.

**Should a man who has had prostate cancer take bioidentical testosterone injections?**

Once prostate cancer has been diagnosed, the cancer cells in the prostate are completely different from the benign prostate cells that were there before, so it is recommended that men refrain from replacing testosterone if there is prostate cancer present. However, if a man has had prostate cancer that is completely removed surgically and has negative nodes (does not have any more prostate cancer cells) Dr. Morgantaler of Harvard feels that it is then a choice to be made by the patient and his doctor. If cancer is metastasized, we don't advise replacement of testosterone, in any form.

**Does testosterone improve depression and anxiety?**

Yes. It often can replace the need for antidepressants which decreases in libido.

**How do cholesterol-lowering drugs affect testosterone?**

Testosterone is derived from the substrate of cholesterol. When you take cholesterol-lowering drugs, you decrease the primary ingredient that testosterone is made of so you then lower your testosterone levels. This is why side effects are weight gain and low libido.

**If I have a genetic reason that causes me to convert testosterone to dihydrotestosterone (DHT) and estrone, how is that monitored and managed?**

We follow blood levels of your estrone and DHT, before and after treatment, and then once a year. If they are elevated, we treat with medications and/or herbal supplements to decrease DHT and Estrone. DHT is lowered by using the herb Saw Palmetto, or the medications Avodart, Propecia or Proscar. We recommend Saw Palmetto we do not recommend Propecia or Proscar. We provide Arimidex for all our male patients so that they won't aromatize (convert testosterone to estrogen). DIM is also a good supplement to take in order to inhibit testosterone to estrogen conversion.

**What if I have prostate enlargement already?**

Testosterone will usually help shrink the prostate. There are exceptions to this rule, but this is the typical experience.

**Will my testicles shrink while I take the testosterone?**

Yes, they will to some extent. Testicles shrink normally with age, as the Leydig cells that are responsible for testosterone age and become dysfunctional. When the Leydig cells aren't productive the testicles shrink some. So as the injections take over the supply of testosterone, the testicles are not producing as much as usual, so they get smaller. This is not a permanent change, and there are medical methods to stimulate the testicular size, but it is cosmetic and not necessary to be healthy.

**How long will it take for my body to get back to my lean normal self?**

That depends on how obese you are at the beginning of treatment as well as how much you exercise, your diet, and how often you work out with weights. Without testosterone replacement this transformation would not be possible even with the perfect diet and exercise.

**If I have used alcohol to excess or drugs like marijuana, will my effect be the same as other men?**

No. You will use up the testosterone more quickly because your liver is activated to metabolize testosterone with the same enzymes that metabolize alcohol and drugs. Marijuana increases prolactin, the hormone that increases breast size in men and women. Prolactin not only decreases your testosterone level but decreases your sex drive, ejaculatory function and sexual stamina. It is expected that if you take testosterone, you will stop using marijuana altogether and decrease or stop alcohol consumption.

**If I have diabetes will testosterone help me with my sexual response?**

Yes, in most cases it will. It also increases insulin sensitivity which will decrease triglycerides and stabilize blood glucose. It will improve the overall status of your diabetes. In men who have had many years of diabetes—especially without good control—the vessels in the pelvis are damaged and cannot dilate anymore to get enough blood to the penis for an erection. In these cases, the only medication that consistently works are injections into the penis at the time of intercourse.

### **Do present and former athletes need testosterone replacement at an earlier age than other men?**

In general, that is accurate however the physiology behind it is not clear. Testosterone tends to improve the joint function and cartilage thickness and muscle tone necessary to relieve the pain from damage to the joints from years of sports. It also replaces the testosterone that decreases because of head injuries in contact sports.

### **Why are testosterone injections better than Viagra?**

Testosterone fixes the real problem—lack of testosterone that decreases libido and sexual response. Viagra does not fix the sexual desire issues. Viagra is only treating the symptom of ED not the other symptoms of low testosterone, and it has many side effects.

### **What treatment will I need if I want to receive testosterone injections because I have Andropause and also have high levels of red blood cells?**

This is a concern for men who take testosterone, because the addition of testosterone can increase the red blood count in anyone. If there is an underlying condition that also elevates the blood count, then it is prudent to diagnose and treat that condition early on in the treatment with testosterone. The reason it is important is that elevated concentrations of red blood cells cause thickening of the blood and could cause clots to form, so it is important that this is diagnosed and treated prior to, or early in the replacement. Evaluation of elevated hemoglobin and hematocrit determines whether you have Hemochromatosis, a benign elevation of red blood cells, and a Jak 2 genetic defect which has other far-reaching consequences with or without testosterone replacement. We can also determine whether your situation requires a specialist such as a hematologist/oncologist.

### **Do Testosterone injections increase my risk of blood clots?**

No, because we evaluate and treat men with an increase in blood count, discussed above. They do not increase the risk of clotting for other reasons either.

### **Should I try another form of testosterone before I come in for testosterone injections?**

No. There is no reason for you to try a method that will not bring you back to health completely before you try injections. s.

### **Will I still need my E.D. medicine after I get injections?**

Maybe. Most men find that they do not. However, if there is vascular compromise from arteriosclerosis or diabetes, then it is still possible that ED medicine in one form or another may be needed. Often we find that a patient's blood pressure medicine is contributing to the problem and we advise our patients to switch to the blood pressure medication that is least likely to cause ED. In any case, if ED meds are needed, they are generally used at a lower dose.