



4335 Solutions
Bradenton, FL 34211
941-739-7900

Benefits of Testosterone in Men

All hormones decrease in productivity as we age. In males, testosterone is the “key” hormone for maleness. It is now being widely recognized the “Andropause” or low testosterone in men has real and profound effects on a man’s body. Most commonly the effects of low testosterone were passed off by most men and doctors as “It’s just part of growing old, or that’s the way you’re supposed to feel, you’re getting old!” We now know that it doesn’t have to be that way. You will still age and grow old, BUT you can do so feeling good about yourself and improving your quality of life.

The major benefits of testosterone replenishment:

- Enhances libido and/or ability, strength of erections
- Promotes the development of muscle mass, strength, and tone.
- Decreases body fat.
- Promotes increased bone mass/density.
- Stimulates the production of red blood cells by the bone marrow.
- Increases metabolism by enhancing the conversion of the inactive thyroid hormone, T4, to the active thyroid hormone, T3, within the cells.
- Promotes enhanced well-being, and self-confidence.
- Decreases depression, elevates mood.
- Improves mental clarity.
- Improves resistance to the development of diabetes (blood sugar control)
- Improves resistance to cardiovascular disease by lowering cholesterol levels.
- Some studies have shown that it increases longevity.
- Provides protection of the prostate.
- Helps men have less irritability
- Restores energy.

These are just some of the major benefits of testosterone replacement. There are many more and some can be patient specific. Rest assured though, that replenishment of your natural testosterone will enable you to: **Live younger. Healthier...Longer!**

DHEA

(Dehydroepiandrosterone)

DHEA is a hormone made by your adrenal glands. A small amount is also made in your brain and skin. DHEA production declines with age starting in your late twenties. By the age of 70 you only make one-fourth of the amount you made earlier. DHEA makes your other sex hormones, estrogen, progesterone and testosterone.

The function of DHEA in your body:

- ❖ Decreases cholesterol.
- ❖ Decreases formation of fatty deposits.
- ❖ Prevents blood clots.
- ❖ Increases bone growth
- ❖ Promotes weight loss.
- ❖ Increases brain function.
- ❖ Helps you deal with stress.
- ❖ Supports your immune system.
- ❖ Helps your body to repair itself and maintains integrity of tissues.
- ❖ Decreases allergic reactions.

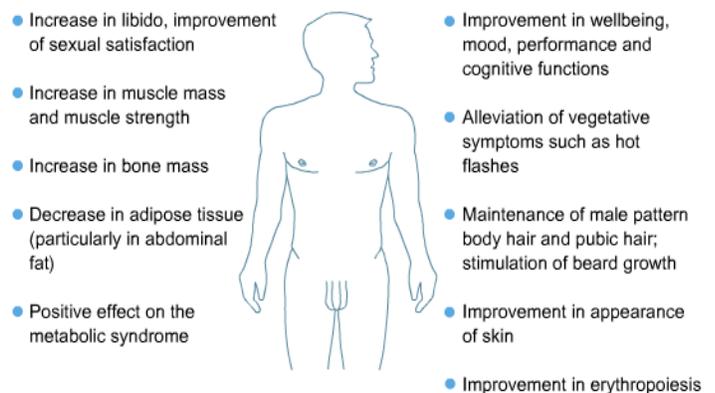
Low DHEA can be due to:

- ❖ Menopause/Andropause
- ❖ Decreased production from adrenal
- ❖ Stress- common!
- ❖ Aging
- ❖ Smoking (Nicotine inhibits the production of an enzyme, beta-hydroxylase, which is needed to make DHEA.)

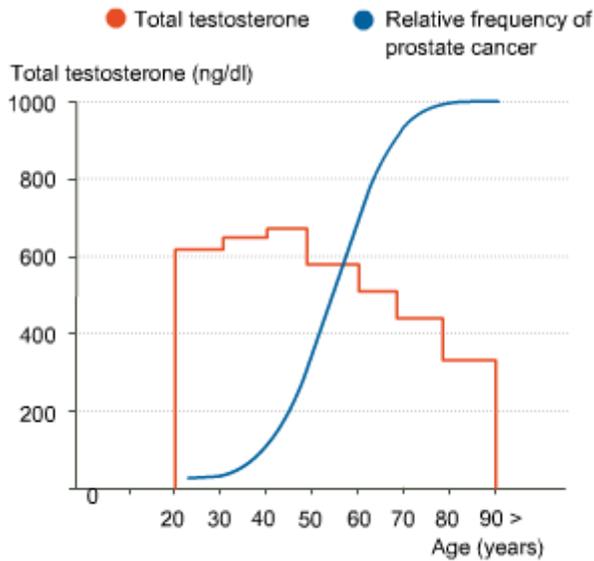
Effects of Declining Testosterone Levels during Aging and Reverse Incidence of Prostate Cancer and Declining Testosterone Levels

Low testosterone levels contributes a host of symptoms associated with aging. These range across broad categories of tissues and physiological function and include loss of bone mass leading to osteoporosis and increased abdominal obesity associated with insulin resistance.

As men age, conventional wisdom says that Prostate Specific Antigen (PSA), a tumor marker for prostate cancer, inevitably goes up. However epidemiological evidence does not support this belief. In fact, it may only be true in unhealthy populations consuming high trans fat diets.



Some of the improvements attributed to testosterone replacement therapy.



Comhaire FH Eur Urol 38: 655 (2000)

***Current evidence suggests that supplementing testosterone raises serum testosterone levels and improves bioavailable testosterone without creating an increased risk of prostate cancer. In fact, the reverse appears to be true: declining testosterone levels are associated with increased PSA and incidence of prostate cancer.**

Testosterone therapy and its influence on growth and malignancy of the prostate gland

Joel M. Kaufman, MD, Associate Clinical Professor, University Of Colorado, USA – ISSCM 2005 International Conference Presentation

“With the availability of transdermal formulations, testosterone (T) supplementation therapy is becoming more popular, especially in older males. Consequently, concerns have arisen about safety, especially regarding the prostate gland. Androgens are involved in the growth of both benign prostatic hypertrophy (BPH) and prostate cancer (PC), although causation of these conditions is unclear. Androgens are required for the growth, maintenance and functional activity of prostate cells. Males castrated before puberty and those with androgen insensitivity syndromes do not develop BPH or PC. Epidemiologic studies show no consistent relationship between serum T levels and PC. Additionally, in radical prostatectomy series, men with low serum T levels have more aggressive disease.

Precipitation of BPH by T supplementation is uncommon. Many series show only small changes in prostate volume, digital rectal exam, lower urinary tract symptoms and urinary flow rates with T replacement in older males. Further, PSA levels increase to a very small degree, even in older males followed up to 42 months. In large series, very few cases of PC have occurred in men treated with T. However, many experts have concluded that T replacement is contraindicated in the presence of PC. Older series showed that administering T to men with active PC leads to disastrous results. However, with widespread PSA screening and aggressive treatment, in the modern era men with early PC are usually cured, as shown by non-detectable PSA levels. Recent case reports show that men cured of PC who are truly hypogonadal can be treated carefully without activation of their cancer. Recently, T replacement in hypogonadal men at high risk for PC (by virtue of having PIN on prostate biopsy) was shown not to result in an increased risk of PC or PSA elevation.”