

# What's Up in Urology Journal, Winter 2013?

*Urology for People* is a section in the *Urology Journal* for providing people with a summary of what is published in this journal and describing urological entities in a simple language.

**Important Note.** The findings in medical papers are usually not directly applicable in clinical practice and patients should consult their physicians before any utilization of the results of medical studies.

## Testosterone Replacement Therapy in Men

**T**estosterone is produced by the testicles and causes proper development of male sexual characteristics. Testosterone is necessary for maintaining body muscle mass, production of red blood cells, bone health, sense of well-being, and normal sexual function and fertility. It should be noted that testosterone deficiency is not a common cause of impotence (erectile dysfunction). Low serum testosterone level can produce the following physiological changes: decrease in muscle bulk, increase in body fat (central obesity), possibly mild anemia, osteoporosis, decreased libido, impotence, and decrease in body hair.

Testosterone peaks during adolescence and early adulthood. As men get older, their blood testosterone level gradually diminishes in a rate of about 1 percent a year after age 30. Some medical conditions can also result in testosterone deficiency, such as diabetes mellitus, infection, chemotherapy, radiation, lung disease, metabolic syndrome (insulin resistance), inflammatory arthritis, advanced renal failure, liver cirrhosis, alcoholism, and some medications.

Many aging men with low testosterone report improved energy levels, muscle mass, sex drive, sleep, and mood after testosterone replacement therapy. However, inappropriate

administration of testosterone may have serious side effects. If testosterone is low, why not replace it? Not so fast. A decreased serum testosterone concentration by itself does not need treatment. The long-term risks and benefits had yet to be determined. Only men with symptoms of low testosterone and blood levels that confirm this as the cause of symptoms should consider testosterone replacement treatment. Talking with your physician is the only way to discern if testosterone therapy is right for you. Men should not consider testosterone therapy to help them feel younger and more vigorous. Testosterone supplements have various forms: Skin patch, Gels, Injections, and Implants. Oral testosterone is also available. However, oral testosterone in the form of methyl testosterone can have adverse effects on the liver. The most appropriate form of testosterone supplements is skin patch.

The most important testosterone replacement therapy side effects are: prostate growth, acceleration of prostate cancer growth, acne or oily skin, breast enlargement, worsening of sleep apnea, and decreased testicular size. Decreased testicular size with resultant infertility and sexual dysfunction are common among athletes and body builders who abuse anabolic drugs, such as testosterone.

*See page 747 for full-text article.*