



The New Jersey Police Chief

The Official Publication of the New Jersey State Association of Chiefs of Police

Vol. 20, No. 4 • April 2014

THE MANASSAS/BULL RUN AND ARLINGTON NATIONAL CEMETERY LEADERSHIP EXPERIENCE



A Staff Ride for Law Enforcement Leaders October 10-12, 2014

More information on page 6

INSIDE THIS ISSUE:

- From the President's Desk
- 102nd Annual Training Conference Registration
- Resuscitating America: Character, Ethics, Leadership
- Creating Safer Police Departments

The ABC's of "Low T"

By Matt Brzycki, Assistant Director of Campus Recreation, Fitness, Princeton University

Testosterone is a hormone that influences secondary sexual characteristics. In men, for example, it deepens the voice and is associated with the growth of facial hair. Additionally, testosterone stimulates increases in strength and muscle mass.

The amount of testosterone in the body decreases with age. A study of 3,219 European males found that 0.1% of men in their 40s (one out of 1,000) had low testosterone or (aka "low T"). Meanwhile, 0.6% of men in their 50s (six out of 1,000) and 3.2% of men in their 60s (32 out of 1,000) had low T.

It's little surprise, then, that testosterone is widely promoted for "anti-aging" purposes. In fact, you've probably seen advertisements in magazines for hormone (or testosterone) replacement therapy.

When the testes produce a level of testosterone that's below the normal range of healthy men it's known as hypogonadism. Signs and symptoms of hypogonadism include decreased libido (sex drive), erectile dysfunction, gynecomastia (the appearance of female-like breasts), reduced muscular size and strength, increased body fat, loss of bone density and diminished energy.

The best way to assess hypogonadism is by measuring the amount of testosterone in the body. This can be done with a standard blood test. The normal range for healthy men is about 300 to 1,000 nanograms per deciliter (ng/dL) or about 10.4 to 34.7 nanomoles per liter (nmol/L).

It's important to note that testosterone fluctuates throughout the day with the highest values in the morning and the lowest values in the late evening. For this reason, measurements should be done in the morning. (Testosterone is also affected by systemic illness and excessive exercise.) Values that are below normal should be measured a second time before concluding that it's low T. Even then, several signs and symptoms of hypogonadism must be present before hormone replacement therapy is justified. (Full disclosure: In April 2012, about one week before I turned 55, my testosterone level was 270 ng/dL. However, my physician wasn't concerned since I had no signs or symptoms of hypogonadism.)

The vast majority of prescriptions for testosterone are written for men who are 46 and older. Prescriptions for younger individuals are often for the improvement of muscular size and/or strength, not the treatment of hypogonadism.

In the US, the most common ways to administer testosterone are via intramuscular injection, transdermal gel and transdermal patch. At the present time, oral administration of testosterone through a pill/tablet isn't approved for use in the US.

There are a number of contraindications for hormone replacement therapy. This includes prostate cancer, breast cancer and an abnormal prostate-specific-antigen (PSA) concentration.

Hormone replacement therapy isn't without risks. Short-term risks include prostate cancer, prostate enlargement, heart disease, testicular atrophy and sterility.

At this time, the long-term risks are unknown but one study has captured the attention of the medical community. In the Testosterone in Older Men with Mobility Limitations (TOM) trial, 209 men aged 65 years or older with mobility problems and low T (average of 243 ng/dL) were randomly assigned to receive either a testosterone gel or a placebo gel. The subjects who were given testosterone significantly improved their strength and mobility . . . but they also had a significantly greater frequency of cardiovascular events including heart attack, stroke, chest pain and hypertension. Specifically, adverse cardiovascular events were experienced by 23 subjects who received testosterone and five who received the placebo. Because of safety concerns, the study was discontinued earlier than intended.

Bottom line: Hormone replacement therapy is an option for those who have low T coupled with a few signs and symptoms of hypogonadism but it carries a risk.

Matt Brzycki is the Assistant Director of Campus Recreation, Fitness at Princeton University in Princeton, New Jersey. A former Marine Drill Instructor, he has authored, co-authored and edited 17 books including his latest, the fourth edition of A Practical Approach to Strength Training.