

Frequently Asked Questions About Testosterone & Andropause for Patients

Q: What is testosterone?

A: Testosterone is a male sex hormone that is important for sexual and reproductive development. It affects libido (sexual desire) as well as the ability to have sex (establish and maintain an erection). It is also important in maintaining strong bones, skin elasticity, muscle mass, heart function, and mood. The National Institute of Health regards testosterone as the most important male hormone. Women also produce testosterone, but at lower levels than men.

Q: What is Andropause?

A: Andropause is sometimes referred to as male menopause. Most men's testosterone levels peak around 35 and start to decline slowly at the rate of 1 to 2% per year. Most men experience a slow decline, and by age 50 begin to notice that they are not experiencing the same energy and vitality they once enjoyed. Unlike menopause, which usually happens within a 6-12 month period for women, Andropause occurs slowly and insidiously over many years.

Q: Why should hormones be replaced?

A: Men do not have to accept the effects of hormone decline. Natural hormone replacement therapy can help by allowing you to feel and perform at the same levels as when you were much younger. An individualized approach to hormone replacement therapy determines your exact hormone levels, and what is needed to balance your deficiencies. The differences between synthetic and natural hormone therapy is that natural hormones share the same chemical structure as the hormones created naturally in the body. The molecule shape, make-up, and structure is identical to what is made in the human body to provide the perfect "key" to unlock the body's receptor sites. Synthetic hormones, on the other hand, have been synthesized in a pharmaceutical laboratory out of chemical compounds, which would have a molecular bond not recognized by the human body and therefore are not metabolized the same as a natural substance.

ADAM (androgen deficiency of the aging male) test for testosterone deficiency

- Low sex drive
- Less strong erections
- Lack of energy
- Decrease in strength or endurance
- Loss of height
- Don't enjoy life
- Grumpy and/or sad
- Fall asleep after dinner
- Decreased work performance

If you answered **yes** to either of the first two questions or four total you may have a testosterone deficiency.

Q: In what forms is testosterone replacement available?

A: Intramuscular injections and transdermal (skin) applications of a cream or gel are readily available but require daily or weekly application and can cause peaks and troughs. Most men are eligible candidates for testosterone pellets that are inserted subcutaneously (under the fatty lining of skin), either in the lower abdomen or the upper buttocks through a very

small incision. Pellet insertion is a simple in-office procedure done using local anesthesia. The implants placed under the skin are a long acting, delivering a stable, steady dose of testosterone consistently over 3 to 6 months. This form of Testosterone replacement has been shown to have many benefits.

Q: Are there any side effects from testosterone pellets?

A: Generally, there are minimal side effects associated with the testosterone pellet implant. Complications of the procedure can include: minor bleeding, bruising, infection, and pellet extrusion. Other than slight bruising, complications are very rare. Hormone side effects vary per individual and should be discussed by your healthcare practitioner.

Q: What can I expect from testosterone replacement?

A: Once you begin your testosterone therapy, you should start feeling the effects within a few weeks. Blood tests will be ordered regularly to determine the effect of the therapy on your testosterone level. Once balanced, most men feel an improved sense of well-being, better mood, more energy, improved sexual desire and performance, and a reduction in aches and pains.

Benefits of Testosterone Pellet Therapy may include:

- Increased libido
- Improved energy
- Improved sense of well-being
- Increased muscle mass & strength and
- Increased stamina
- Decreased frequency and severity of migraine headaches
- Decrease in mood swings
- Reduced anxiety and irritability
- Decreased weight
- Decrease risk or severity of diabetes
- Decreased risk of heart disease
- Decreased risk of Alzheimer's and dementia

Supporting Information:

Pharmacokinetics and pharmacodynamics of testosterone pellets in man

David J. Handelsman, Ann J. Conway, and Lyn M. Boylan, *The Journal of Clinical Endocrinology & Metabolism*, Volume 71, Issue 1, October 23, 1989

Testosterone release rate and duration of action of testosterone pellet implants

S. Kelleher, C. Howe, A. J. Conway and D. J. Handelsman
Clinical Endocrinology, Volume 60, Issue 4, pages 420–428, April 2004

An analysis of testosterone implants for androgen replacement therapy

David J. Handelsman, Mary-Anne Mackey, Chris Howe, Leo Turner and Ann J. Conway, *Clinical Endocrinology*, Volume 47, Issue 3, pages 311–316, September 1997