

## UROLOGY

### Beginner's guide to testosterone

There are lots of jokes about this hormone, and how it makes a man, a "man". But many do not actually know what its function is, and how it affects the health of men.



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#### What is it?

Testosterone is a steroid hormone. It is secreted primarily by the testicles of males, with a small amount secreted by the adrenal glands. It plays an important role in the health of men, by helping to maintain muscle mass, bone density and sex drive. Testosterone production is at its highest in a man's early adulthood and drops a little bit each year thereafter.

#### How does it affect the body?

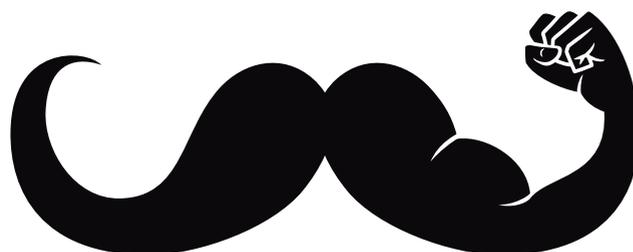
When a male is young, testosterone plays a key role in the development of male reproductive tissues such as the testes and the prostate. It also promotes secondary sexual characteristics such as increased muscle and bone mass and the growth of body hair, and the prevention of osteoporosis. It is essential in maintaining a healthy sex drive and morning erections as well as a sense of energy and general well-being. It is also important for sperm development for male fertility.

#### How does one get low testosterone?

One can get low testosterone from certain genetic diseases, mumps in childhood, excessive use of anabolic steroids, traumatic brain injury and ageing. Although testosterone levels decrease gradually with age, some men have a much faster rate of decrease compared with others.

#### What happens when you don't have enough of it?

Men with low testosterone may have decreased libido, fewer morning erections, fatigue, inability to concentrate and loss of energy. Some may also have physical symptoms like



decreased muscle mass and bone strength, or increased visceral fat with the inability to lose weight despite an adequate diet and exercise regimen. Men with low testosterone levels might also experience sleep disturbances and feel depressed. Fertility will also be affected. A simple blood test taken in the morning is all that is required in order to test for low testosterone.

#### How can testosterone production be given a boost?

Testosterone therapy is not usually recommended if testosterone levels fall within the normal age range. When it is administered, it can take the form of three monthly injections or daily skin application of a testosterone gel. Treatments last from three to six months, although certain patients may require longer-term treatment. For many men, this condition diminishes their "manhood", although it shouldn't. Sometimes, a few lifestyle changes may be all that is needed, such as getting enough sleep, losing excess weight, ensuring adequate zinc in the diet, reducing sugar consumption and exercise.

#### Are there any risks to testosterone replacement therapy?

The risks are generally minimal. You must be screened for prostate and male breast cancers, although studies have not shown an increased risk of prostate cancer for those undergoing testosterone replacement therapy. You will, however, need to have regular follow-up checks to monitor for prostate cancer symptoms.

#### Is it possible to have too much of it? What happens when you do?

Too much testosterone usually occurs because of excessive consumption of steroids or may be a symptom of testicular or adrenal tumours which are not common. Prolonged use of testosterone by athletes and body builders can lead to problems with fertility, hypogonadism (under-production of sperm or testosterone), increased risk of vascular events (interruptions to blood flow), thrombosis (formation of blood clots) and sleep apnoea (a serious disorder during which breathing stops and starts involuntarily). 