

Reproductive Facts

Patient fact sheet developed by the
American Society for Reproductive Medicine



Testosterone Use and Male Infertility

Testosterone (also referred to as "T") is a hormone produced in men by the testicles. It is involved in muscle and bone development, hair growth, and development of the sex organs such as the penis and prostate. It also contributes to a man's sense of overall well-being and sexual function. Testosterone is required for sperm production as well.

How do you test for low testosterone and what problems does it cause?

Low testosterone is also called hypogonadism. It can lead to problems with erections, low sex drive, mood changes and problems with sperm health and sperm counts. Testosterone can be measured by a simple blood test and are usually measured in the morning, since that is when levels are highest in men.

Can low testosterone be treated?

Men with low testosterone can be treated! Testosterone replacement comes in many forms, including shots, gels, patches, or implantable pellets. However, it is important to know that testosterone treatment usually leads to either low sperm counts, or no sperm seen whatsoever in the semen.

Can low testosterone lead to infertility?

Low testosterone does not directly cause infertility. Sperm production is stimulated by hormones other than testosterone. Testosterone is required for sperm production, but the level in the testes where sperm is produced is many times higher than in the blood. Even men with low or borderline T levels may have sufficient T levels for sperm production, but it may contribute to lower counts or less healthy sperm.

If a man is taking testosterone and wants to have children, how can low testosterone be treated to help with fertility?

There are some medications that can lower estrogen levels in your body. All men have estrogen in them but lowering it may help with sperm production. These meds include clomiphene citrate, letrozole or anastrozole and are pills. There are also injectable drugs that act like the hormones sent down from glands in your brain that will increase sperm production. Fertility specialists for males will prescribe these drugs, because sometimes they can act to lower sperm counts if they are used incorrectly.

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Once the testosterone is stopped, the sperm should return to the semen within about 3 months, and no permanent damage is seen.