

Testosterone deficiency

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What is it?

Testosterone deficiency or 'hypogonadism' is when the body is unable to make enough testosterone to work normally.

How common is it?

Men are more likely to develop hypogonadism as they get older. In the UK, it is thought to affect over 8% of men aged between 50 and 79 years.


Why is it important?

Testosterone is the most important sex hormone (androgen) in men. The body starts to produce testosterone during puberty and it is essential for the development and maintenance of male characteristics. Testosterone also has effects on sexual function and most major organs including the brain, kidneys, bone, muscle and skin.

Low testosterone levels increase a man's risk of developing diseases of the heart and blood vessels (cardiovascular disease (CVD)), and increase his risk of death. A low testosterone can also significantly reduce a man's quality of life.

What causes it?

Testosterone production is controlled by both the brain and the testes. In younger men, testosterone deficiency usually results from a problem in one of these areas. From the age of about 30 years, testosterone levels start to drop naturally. However, the production of testosterone doesn't usually stop altogether and some men have higher levels than others as they age. The condition known as 'late-onset hypogonadism' is only associated with older age.



Older men are at increased risk of developing hypogonadism if they are obese or have the metabolic syndrome, diabetes, chronic obstructive pulmonary disease (COPD), inflammatory arthritis or kidney disease. It is also more likely to occur if they have had androgen deprivation therapy for prostate cancer, taken opiate drugs for a long time, have prostate disease or drink too much alcohol.

What are the symptoms?

Patients with hypogonadism often have no specific symptoms. They may lose their night time erections, find it difficult to get or keep an erection (which is known as erectile dysfunction (ED)), have low libido ('sex drive') and feel tired and/or depressed. Some men may notice they are losing muscle mass, becoming weaker and/or gaining weight. Other symptoms include hair loss from the face, armpit or pubic region, difficulty sleeping and hot flushes.

However, it is important to remember that many of these symptoms may be due to lifestyle or psychological issues (in the mind) rather than testosterone deficiency. For example, tiredness, weakness, reduced muscle mass and getting fatter may be caused by a lack of exercise and/or a poor diet. While low libido, ED, depression and difficulty sleeping may be caused by stress and/or anxiety. The lower your testosterone levels, the more likely you are to get symptoms

How is it diagnosed?


Hypogonadism is often identified when men see their doctor about, or are asked about, reduced libido and/or ED.

To diagnose hypogonadism that requires treatment, your doctor will consider your symptoms AND your testosterone levels. Men with ED, diabetes and suspected hypogonadism should always have their testosterone checked. Men who don't respond to phosphodiesterase (pronounced phos- pho- di- es- ter- ase) inhibitors (PDE5i) such as Viagra®, (which are used for treating ED), should also have their testosterone checked. To measure your testosterone level you will need a blood test, which is done in the morning and usually repeated on another day.

Hypogonadism may not be diagnosed if men ignore their symptoms or put them down to other causes such as aging.

How is it treated?

If you are found to have hypogonadism that requires treatment, you will need testosterone replacement therapy (TRT). This can be given as a gel which is rubbed into the skin every day, or as a long-acting injection which is given every 6-12 weeks depending on how you respond to it.



TRT can provide a variety of benefits in men with hypogonadism. These include improvements in CVD, mood, libido and sexual function, as well a reduction in body fat and an increase in muscle mass. Such benefits are also likely to improve quality of life.

If you have ED, TRT may have the added bonus of improving the effects of drugs like Viagra®. (For more information see our factsheet '[Oral treatment for erectile dysfunction](#)'). This may be particularly important in men who have type 2 diabetes, as many of them do not get good results with these drugs.

However, TRT is also associated with some risks and your doctor should be able to discuss these with you. When thinking about using TRT, you and your doctor need to be sure that the benefits outweigh the possible risks. TRT may not be suitable for you if you have prostate cancer.

Once a man starts TRT he should see his doctor for regular check ups to make sure it is working well and not causing any problems. If he is not at increased risk of heart problems, and the testosterone level is stable, he should have a blood test every 6 to 12 months.

Where can you get more information?

The Sexual Advice Association is here to help. We cannot give individual medical advice, but we can answer your questions on any sexual problems and put you in touch with local specialist practitioners. We also have a number of factsheets and booklets on sexual problems and related issues for men and women that can be downloaded from our website or requested. Please feel free to email us or phone our Helpline (our contact details are at the bottom of this page).

You can also visit the NHS Choices website at www.nhs.uk/ for information and advice on many different health and lifestyle topics.

What is the Take Home Message?

Hypogonadism can significantly affect a man's health and quality of life - but it can be easily treated

Further reading

Download or request our booklet '[Sex and the heart](#)' and/or our factsheet '[Erectile dysfunction](#)'

Donate

By donating to the Sexual Advice Association, you will know that you are helping improve the lives of people living with sexual problems. If you are interested in donating, please click [here](#) or contact us for more information (details at the bottom of this page).

Thinking About Sex Day: February 14th

Launched by the Sexual Advice Association, Thinking About Sex Day (TASD) is designed to encourage everyone to think about the physical and psychological issues surrounding sexual activity.

