

A photograph of three women of different ages smiling and holding a large, light blue heart. The woman on the left is older with white hair and glasses. The woman in the middle is middle-aged with dark hair. The woman on the right is younger with blonde hair and sunglasses on her head. They are all smiling warmly at the camera.

Can testosterone really help us?

Testosterone can help alleviate some health-related issues of menopause

Testosterone is a hormone common to both women and men, although men's bodies produce much greater amounts. In women, testosterone is an essential hormone. Loss of sexual desire and satisfaction are common symptoms amongst postmenopausal women and testosterone, in a dose appropriate for women, can be very effective in improving sexual desire and satisfaction.

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Testosterone and women

Androgens are hormones produced by the ovaries and adrenal glands, with the principal androgen being testosterone. In women, the ovaries directly release testosterone into the blood stream, but testosterone can also be made from other hormones that come from the ovaries and adrenal glands such as DHEA and androstenedione. In women and men, testosterone acts directly in cells, but it is also converted to estrogen, and has vital biological effects through estrogen action. [1.]

Testosterone blood levels in men are about 10-20 fold greater than in women and result in the male features we tend to associate with testosterone, such as deeper voice, more body hair, more muscle and so forth.

Testosterone blood levels in women tend to peak during their 20s. This is followed by a gradual decline with age. By the time a woman reaches menopause, blood testosterone levels are about one quarter of what they were at their peak. [2.] However, after the age of 65-70 years, women have testosterone blood levels similar to those seen in young women. [3.]

A sudden fall in testosterone blood levels occurs when women have both of their ovaries removed (surgical menopause). Other causes of low testosterone in women include:

- Use of the oral contraceptive pill - switches off testosterone production by the ovaries and produces a liver protein (SHBG) which may reduce the effects of testosterone;
- Oral steroid therapy - suppression of testosterone production by the adrenals;
- Anti-androgen therapy for acne, hirsutism or scalp hair loss - drugs that block the actions of testosterone in body cells; and
- Complete loss of pituitary function (panhypopituitarism).

To exclude other potential causes, we recommend you talk to your healthcare professional.

What are the consequences of low testosterone in women?

The effects of low testosterone in women have been greatly debated over many years. Firstly, and most importantly there is no blood level that can be used as a cut-off to “diagnose” low testosterone in women.

Some studies have indicated that there may be an association between low sexual desire and low testosterone, but this has not been a consistent finding in all studies. [4.]



Is there any benefit of testosterone therapy?

A complete review of all the published studies published in 2019 has shown that postmenopausal women who experience a reduction in sexual desire, that causes them personal concern or distress, may benefit from testosterone therapy. This review also revealed that there is not enough evidence yet to show that premenopausal women will benefit from testosterone therapy. ^[5]

Low sexual desire with associated distress has been also termed Hypoactive Sexual Desire Disorder (HSDD). As there are many reasons why women might experience HSDD, if you are experiencing what you think is HSDD you should talk to your doctor and explore the full range of possible causes. It is only after doing so that testosterone therapy should be considered.

Some women are being treated with testosterone for reasons other than HSDD. IMS brought together a team of leading experts to review the evidence base of testosterone therapy and published our recommendations in a global Consensus Statement (2019). The review found no clear evidence that testosterone improves wellbeing or mood and should not be used only for this purpose. The Statement concluded that there is not enough evidence one-way or other to support the use of testosterone for any symptoms or medical condition other than HSDD.

How is testosterone given?

Testosterone can be taken as a tablet/ capsule, but this is not recommended for women or men as oral forms have unwanted effects on blood cholesterol levels.

If testosterone is used it should be in a non-oral form such as a skin gel, cream, patch or implant under the skin. The dose of testosterone should reproduce blood levels that are seen in young women. Levels higher than this are likely to cause side effects such as excess body hair, scalp hair loss and acne, and are considered unsafe.

There is limited availability of testosterone in a dose formulated for women. The global Position Statement (2019) recommendation is that if a formulation for women is not available, a small amount of an approved male formulation (as recommended by a doctor) can be used, with regular blood monitoring to check blood levels do not exceed those of young women. The international expert panel recommended against the use of compounded testosterone formulations. ^[6]

Top questions to ask

If you answer yes to one or more questions below you should discuss this further with your doctor, and explore what treatment might benefit you:

1. Do you have dryness, discomfort or pain during vaginal penetration?
2. Have you experienced a loss of sexual desire and sexual thoughts?
3. Have you found you are less responsive to your partner sexually?
4. Are you less responsive to sexual stimulation?
5. Do you have difficulty reaching orgasm?
6. If your answer is yes to any of the above, does this bother or distress you?
7. If your answer is yes to any of the above, would you like treatment to change things?

If you have any concerns about any of the information discussed in this leaflet, please visit your healthcare professional.



References

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