

## Testosterone and Women

### What is testosterone?

Testosterone is one of the androgen hormones (predominantly male hormones), which plays an important role in women's health and wellbeing. In women, testosterone is mostly produced by the ovaries but it is also produced in other parts of the body.

Androgens are important for muscle and bone strength and for the growth of normal body hair. Androgens may also have important positive effects on mood, wellbeing, energy and vitality in women.

### Testosterone levels

Women's testosterone levels start to drop in their younger reproductive years. A woman in her forties has on average only half as much testosterone circulating in her bloodstream compared to a woman in her twenties. Generally, a woman in her 20s will have a testosterone level that is a tenth of the level in males. However, this can vary between individual women.

There is almost no change in testosterone at the time of natural menopause and there is only a very gradual decline after a woman enters her sixties. When a woman has her ovaries removed by surgery, testosterone levels can fall suddenly, by 50 per cent on average. Testosterone levels can also be reduced by some medical treatments, including the oral contraceptive pill.

### Impact on libido

Testosterone, along with lifestyle and relationship issues, can impact on libido or sexual desire, and other aspects of sexual function. A proposed *'female androgen insufficiency syndrome'* has linked low testosterone levels in women with symptoms such as lowered libido, unexplained fatigue, lowered energy levels, flat mood and reduced motivation. However, whether this is an actual medical syndrome in women remains highly controversial.

### What is testosterone therapy?

Testosterone treatment in women aims to restore levels to the typical range seen in a young woman in her early 20s. Some studies have shown that women who experience a loss of sexual interest at menopause may benefit from testosterone therapy when it is used in conjunction with oestrogen (predominantly female sex hormone).

Some research also indicates that testosterone therapy can improve sexual interest and wellbeing in women who are premenopausal with low libido. However, further research is needed. Note; if you are a woman of childbearing age who is considering testosterone use, make sure to use reliable contraception, as serious adverse effects on a developing foetus may result if pregnancy is achieved whilst on testosterone treatment.

A study of Australian women recruited from the community who had no complaint about their sexual function, has shown that low sexual desire, arousal, responsiveness and other aspects of female sexuality are not significantly related to low testosterone levels. On the other hand, women seeking help from health professionals because they are concerned about their diminished sexual function frequently have low testosterone levels.

### **What are the risks?**

Testosterone treatment in women has been associated with an increased risk of developing oily skin, acne, excess facial and body hair growth, scalp hair loss, irritability and aggression. Serious potential side effects include lowering of the voice and enlargement of the clitoris, both of which are irreversible. One study of testosterone only treatment in postmenopausal women reported an increased risk of breast cancer compared to women who had received a placebo, or dummy treatment.

### **What to consider**

If you are considering testosterone therapy, talk to your general practitioner to gain a clear understanding of what is currently known about this therapy. It is essential that women undergoing testosterone treatment are supervised by practitioners with expertise in this area. **Note: there are further research questions to be answered on the use of testosterone therapy in women. Currently no form of testosterone therapy for women is officially approved in Australia by the Therapeutic Goods Administration (TGA).** The TGA is a government body that assesses and monitors activities to ensure that therapeutic goods available in Australia are of an acceptable standard.

### **Where can I get more information?**

[www.jeanhailes.org.au](http://www.jeanhailes.org.au)

[www.managingmenopause.org.au](http://www.managingmenopause.org.au)

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This fact sheet is designed to be informative and educational. It is not intended to provide specific medical advice or replace advice from your health practitioner.

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