

# Androgen Deficiency

(Hypoactive sexual desire disorder or HSDD)

**Before and after the menopause women can suffer due to androgen (male hormone) deficiency. This is characterised by the loss of androgen hormones in a woman of which the most well-known is testosterone. Testosterone is essential for both men's and women's health, though each sex requires different levels. Insufficient research has been undertaken into this (in comparison to research into androgen deficiency in men) and some doctors will not recognise this as a medical condition. Although a universal definition of androgen deficiency is lacking, treatment is becoming available.**

## Update 13 October 2010

The German pharmaceutical company Boehringer Ingelheim announced it is halting development of flibanserin (Girosa), a pill to treat female HSDD. This follows a ruling in the USA by the FDA (Food and Drug Administration) advisory committee that "the benefits of flibanserin do not outweigh the risks, which include fainting, accidental injury, insomnia and fatigue."

HSDD is defined as the persistent or recurrent deficiency or absence of sexual thoughts, fantasies, and/or desire for sexual activity, which causes marked distress or interpersonal difficulty and may be associated with low sexual activity, sexual arousal problems, or orgasm difficulty.

## Causes

Androgen deficiency will develop to some degree in all women at some point in their lives, and age is the predominate cause. Research has shown that a 40-year-old woman has approximately half the amount of circulating testosterone in her body as that of a 20-year-old, and this continues to decrease as she gets older. Addison's disease<sup>1</sup>, hypopituitarism (a deficiency of hormones in the pituitary gland) and bilateral oophorectomy (the surgical removal of a woman's ovaries) can result in severe androgen deficiency. However, a natural menopause may also lead to androgen deficiency.

## Symptoms

Androgen deficiency is often difficult to identify, as many women will think the symptoms result from psychological or lifestyle issues rather than a biological disorder. These symptoms can be inexplicable tiredness, lack of energy, disturbed sleep, low motivation levels, low self esteem and a complete lack of sexual desire (libido). A low level of androgens can also result in reduced bone density that can predispose to osteoporosis.

## Diagnosis

To confirm that a woman is suffering from androgen deficiency, the levels of testosterone and sex hormone binding globulin (SHBG) need to be evaluated. Research has shown that if a woman's level of "free" testosterone (calculated from the total testosterone level and the SHBG) is low, this produces symptoms of androgen deficiency even if levels of total testosterone alone appear "normal."



## Treatment

Testosterone will be effective in any woman with androgen deficiency. At present in the UK, treatment, in the form of testosterone replacement by skin patch, is only licensed for women who have had a bilateral oophorectomy. Research has shown that testosterone taken in conjunction with hormone replacement therapy (oestrogen with or without progestogen) at menopause can benefit women suffering from low libido. Other studies reveal the relief of the symptoms outlined above with testosterone replacement in peri-menopausal and post-menopausal women. If testosterone replacement is appropriately used in the correct dosage there are rarely any adverse side effects. Nevertheless, testosterone replacement is not suitable for all women either for medical (pregnant women, those suffering severe acne, excessive body hair growth or balding should not take testosterone) or personal reasons. Testosterone replacement comes as a gel, an injection, an implant or a patch.

<sup>1</sup> Addison's disease is a condition where the adrenal glands fail to produce sufficient amounts of the hormone cortisol, essential to healthy bodily function, and also aldosterone that helps maintain blood pressure and water salt balance in the body.

## Useful contacts

### **The Society for the Study of Androgen Deficiency**

Website: [www.andropause.org.uk](http://www.andropause.org.uk)

Phone: 020 7636 8283

## Sources

### **National Endocrine and Metabolic Diseases Information Service**

<http://endocrine.niddk.nih.gov/pubs/addison/addison.htm>

### **Hormone Therapy 2005**

[www.jeanhailles.org.au/images/stories/Education/Documents/info/2005hormone\\_therapy.pdf](http://www.jeanhailles.org.au/images/stories/Education/Documents/info/2005hormone_therapy.pdf)

### **Testosterone 2005**

[www.jeanhailles.org.au/images/stories/Education/Documents/info/2005testosterone.pdf](http://www.jeanhailles.org.au/images/stories/Education/Documents/info/2005testosterone.pdf)

### **Medscape & eMedicine**

[www.medscape.com/viewarticle/408940](http://www.medscape.com/viewarticle/408940)

### **Androgen Deficiency**

[www.pharmhealthinfusion.com/Articles/AndrodenDeficiency1.pdf](http://www.pharmhealthinfusion.com/Articles/AndrodenDeficiency1.pdf)

### **Androgens by Ray Sahelian, M.D.**

[www.raysahelian.com/androgens.html](http://www.raysahelian.com/androgens.html)

### **eMJA: Davis, Androgen treatment in women**

[www.mja.com.au/public/issues/jun7/davis/davis.html#box1](http://www.mja.com.au/public/issues/jun7/davis/davis.html#box1)

This factsheet has been produced by Women's Health Concern and reviewed by members of our Medical Advisory Panel.

It is for your information and advice and should be used in consultation with your own medical practitioner. **Updated: October 2010.**

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