



## **ANDROGENETIC ALOPECIA**

### **What are the aims of this leaflet?**

This leaflet has been written to help you understand more about androgenetic alopecia. It tells you what androgenetic alopecia is, what causes it, what it looks like, how it is diagnosed, what treatments are available, and where you can get more information about it.

### **What is androgenetic alopecia?**

Androgenetic alopecia is the most common type of progressive hair loss. It is also known as male-pattern baldness, female-pattern baldness, or just common baldness. It affects about 50% of men over the age of 50, and about 50% of women over the age of 65. In women the severity varies, it may present as widespread hair thinning but in some cases it can lead to complete baldness.

### **What causes androgenetic alopecia?**

Androgenetic alopecia is caused by a combination of genetic and hormonal factors. Dihydrotestosterone (DHT) is the main hormone responsible for androgenetic alopecia in genetically susceptible individuals. DHT causes scalp hair loss by inducing a change in the hair follicles on the scalp. The hairs produced by the affected follicles become progressively smaller in diameter, shorter in length and lighter in colour until eventually the follicles shrink completely and stop producing hair.

### **Is androgenetic alopecia hereditary?**

Yes. It is believed that genetic susceptibility to this condition can be inherited from either or both parents.

## **What are the symptoms of androgenetic alopecia?**

Androgenetic alopecia affects men earlier, and more commonly, than women. Males typically become aware of scalp hair loss or a receding hairline, beginning at any time after puberty.

In women, the age of onset is later compared to men, usually occurring in the 50s or 60s. Occasionally, androgenetic alopecia in women may start earlier than this, in the 30s or 40s. In some women, this condition can be associated with an excess of male hormones such as in polycystic ovary syndrome (PCOS). Acne, increased facial hair, irregular periods and infertility are all signs of PCOS.

## **What does androgenetic alopecia look like?**

Androgenetic alopecia looks different in males and females. Hairs in the affected areas are initially smaller in diameter, and shorter compared to hairs in unaffected areas, before they become absent.

In men, the usual pattern of hair loss is a receding hairline, and loss of hair from the top and the front of the head.

In women, hair loss or thinning typically occurs at the crown of the scalp, with complete or nearly complete preservation of the frontal hairline.

## **How is androgenetic alopecia diagnosed?**

The diagnosis is usually based on the history, pattern of hair loss and family history of a similar pattern of hair loss. The skin on the scalp looks normal on examination. Occasionally blood tests may be carried out.

## **Can androgenetic alopecia be cured?**

No, there is no cure for androgenetic alopecia. However, the progression of this condition in both men and women tends to be very slow, spanning several years to decades. An earlier age of onset may predict a quicker rate of progression.

## How can androgenetic alopecia be treated?

### Licensed topical and oral treatments:

- Applying 2% or 5% minoxidil solution to the scalp may help to slow down the progression and partially restore hair in a small proportion of males and females. However, this product is expensive and seldom produces a worthwhile long-term improvement. In those who respond, the benefit is only maintained for as long as the treatment is used. Minoxidil has been known to cause irritant or allergic reactions at the site of application.
- For men, finasteride tablets reduce levels of dihydrotestosterone which may slow hair loss and possibly help regrowth of hair. Continuous use for 3 to 6 months is required before a benefit is usually seen. Decreased libido and erectile dysfunction are recognised side-effects of this treatment. Any beneficial effects on hair growth will be lost within 6 to 12 months of discontinuing treatment.

### Unlicensed treatments:

- For women, medications such as spironolactone, ciproterone acetate, flutamide and cimetidine can block the action of dihydrotestosterone on the scalp which may result in some improvement in hair loss. Spironolactone and ciproterone acetate however should be avoided in pregnancy since they can cause feminisation of a male fetus; both should be avoided during breast feeding. Flutamide carries a risk of damaging the liver.

It is important to note that all of the topical and oral treatments only work for as long as the treatment is continued. Furthermore, none of these treatments are particularly effective.

### Wigs and hair pieces:

- Some affected individuals find wigs, toupees and even hair extensions very helpful in disguising androgenetic alopecia. There are two types of postiche (false hairpiece) available to individuals; these can be either synthetic or made from real hair. Synthetic wigs, and hairpieces, such as a toupee, usually last about 6 to 9 months, are easy to wash and maintain but can be susceptible to heat damage and may be hot to wear. Real hair wigs or hairpieces can look more natural and can be styled with low heat.

### Cosmetic camouflage:

- Spray preparations containing small pigmented fibres are available from the internet and may help to disguise the condition in some individuals. These preparations however may wash away if the hair gets wet (.e. rain, swimming, perspiration), and they only tend to last between brushing/shampooing.

### Surgical treatments:

Surgical treatment is not offered under the NHS. This can be sought privately and includes (i) hair transplantation, which is a procedure whereby hair follicles are taken from the back and sides of the scalp and transplanted onto the bald areas, and (ii) scalp reduction which involves the removal of an ellipse from the bald area with closure by stretching of the hair bearing scalp. Tissue expanders may be used to stretch the skin in some cases, and in addition the scars from a scalp reduction may be too evident.

### **Self care (What can I do?)**

An important function of hair is to protect the scalp from sunlight; it is therefore important to protect any bald areas of your scalp from the sun to prevent sunburn and to reduce the chances of developing long-term sun damage.

You should cover any bald patches with sun block, your wig or a hat if you are going to be exposed to sunlight.

### **Where can I get more information about androgenetic alopecia?**

#### *Web links to detailed leaflets:*

[www.dermnetnz.org/hair-nails-sweat/pattern-balding.html](http://www.dermnetnz.org/hair-nails-sweat/pattern-balding.html)

<http://dermnetnz.org/hair-nails-sweat/female-pattern-hairloss.html>

<http://emedicine.medscape.com/article/1070167-overview>

#### *Links to patient support groups:*

[www alopecia-awareness.org.uk](http://www alopecia-awareness.org.uk)

[www alopecia.org.uk](http://www alopecia.org.uk)

[www alopeciaworld.com](http://www alopeciaworld.com)

For details of source materials used please contact the Clinical Standards Unit ([clinicalstandards@bad.org.uk](mailto:clinicalstandards@bad.org.uk)).

**This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: its contents, however, may occasionally differ from the advice given to you by your doctor.**

*This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel*

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