

MALE PATTERN BALDNESS

ANDROGENIC / ANDROGENETIC ALOPECIA

Almost 96% of Caucasian men will experience some degree of male pattern baldness, and of those who do, some 50-75% will actively seek ways to help or disguise their hair loss.

It is such an enormous problem that affects men all over the globe from all socio-economic backgrounds that we in the Irena office felt it warranted further explanation.

Androgenic or Androgenetic Alopecia is characterised by progressive patterned hair loss from the scalp. Recent research has led to a much-improved understanding of why hair is lost, both in terms of the genetic make-up of the individual and the disease causing the loss, along with understanding the distress experienced by sufferers.

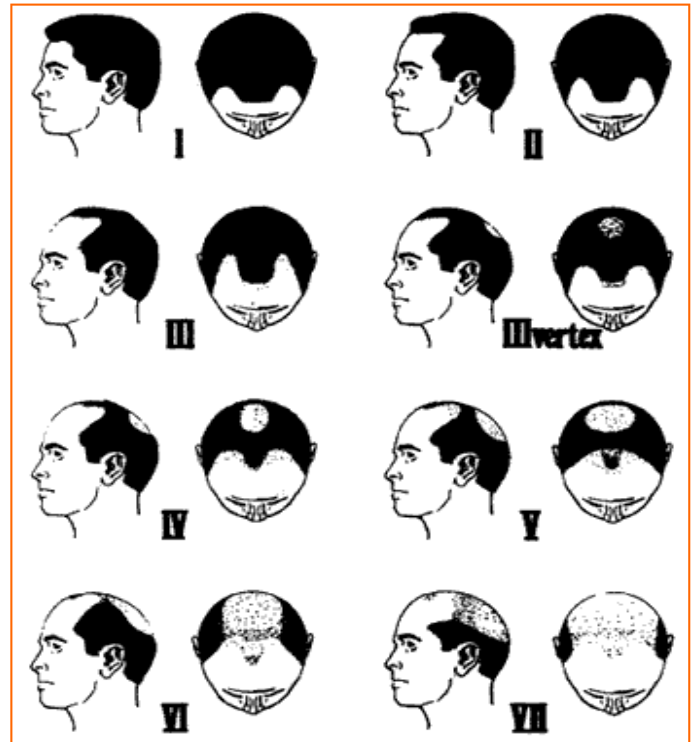
As we age, some of the hairs on our scalp (known as **terminal hairs**) change into the finer hairs (**vellus hairs**) found on the rest of the body. However, in some people this occurs earlier and to a greater extent.

Androgenic alopecia only becomes a problem when the hair loss is *subjectively* seen as excessive, premature and distressing.

Androgenic alopecia in men usually begins with hair recession at the temples and front of the hairline, followed by diffuse thinning over the crown of the head. Over time, the crown often becomes totally bald, leaving behind an island on the frontal scalp. Eventually this disappears and ultimately all the hair thins and may also be lost. (see diagram)

WHY DOES IT HAPPEN?

Interestingly, the cause of androgenic alopecia was speculated upon as long ago as 400BC, when Hippocrates (the father of modern medicine) noticed that Eunuchs (castrated men) did not go bald.



For premature androgenic alopecia to occur, the main prerequisites are:

1. A genetic predisposition, and
2. Sufficient levels of circulating androgens.

Every Caucasian man possesses the gene that causes androgenic alopecia, and 96% lose hair to some degree. By age 30, 30% of Caucasian men have androgenic alopecia; by age 50, 50% have it! In fact, white men are four times more likely than black men to experience premature hair loss.

In recent years, studies have shown that hair growth is regulated by androgens (male hormones). One in particular, **dihydroxytestosterone**, which is a breakdown product of the hormone testosterone, has been shown to cause the changes that occur in androgenetic baldness, as described below.

A Hair Information Resource from Irene Stein

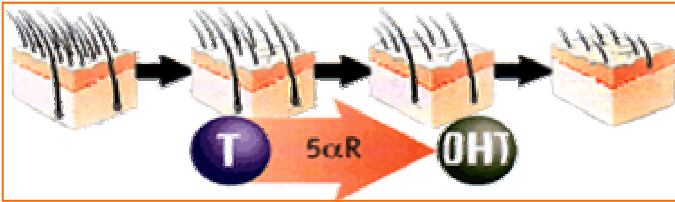


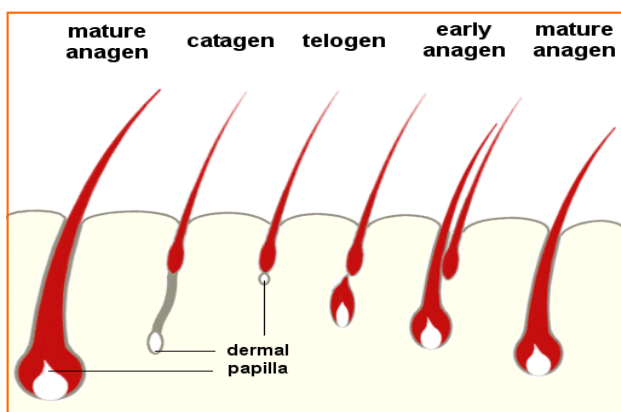
Diagram above shows effect of DHT on hair growth.
(T = testosterone; 5αR = 5 alpha reductase; DHT = dihydroxytestosterone

Terminal hairs (the thick pigmented hairs that we find on our scalps) are actually replaced with vellus hairs (the fine, non-pigmented hairs on the rest of the body).

In addition, the phases of the growth cycle change. The anagen or growth phase, which normally lasts 2-6 years, becomes progressively shorter with age, which leads to a shortening in length of the hair; eventually the duration of the anagen (growth) phase is so short that the hair does not even penetrate the skin surface before re-entering the telogen (rest) phase and being shed.

The only residual evidence of a functioning follicle is a pore. Over time, the rest period between telogen shedding and anagen re-growth becomes longer, leading to a reduction in the number of hairs present on the scalp.

Accompanying these changes the follicle itself becomes smaller and smaller with each growth cycle, and the hairs that are produced become progressively finer and finer.



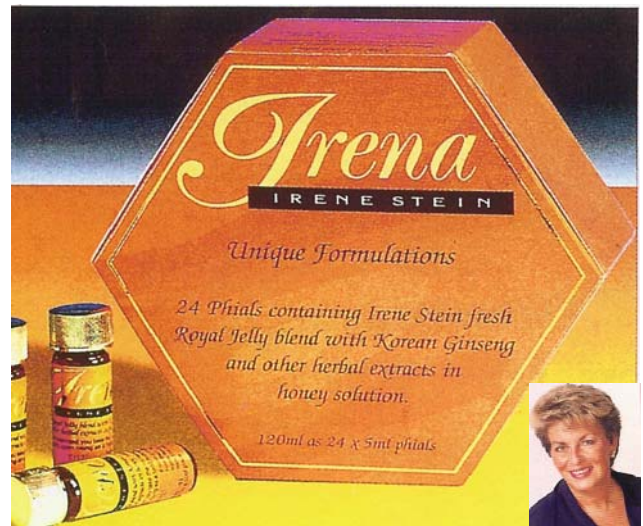
HOW CAN IRENA HELP?

Unfortunately, not even the Irena Unique Formulation can change a person's genetic make-up, but the formula does have an effect on the levels of androgens in the body.

Contained within the formula is a plant called **Saw Palmetto** or **Serrenoa Serrulata**. This completely natural substance actually inhibits the hormone **5-alpha-**

reductase that changes testosterone into the hair loss causing **dihydroxytestosterone**. Lower blood levels of dihydroxytestosterone means less damage to the follicle, and a normalising of the anagen / telogen phases of the growth cycle.

In a small study of healthy men ages 23-64, taking 200 mg. standardized Saw Palmetto twice a day for four months, a 60 percent improvement in hair growth was reported.



But the Irena formula also offers added support for maximum hair re-growth. It contains many of the vital nutrients that we require, including biotin, lysine, phosphorous, silicon, vitamin E, zinc and folic acid. The essential amino acid methionine is a primary source of sulphur, leading to healthy hair.

Biotin is thought to prevent premature baldness, and pantothenic acid (so popular in all those shampoos these days) might actually return colour to prematurely grey hair - and in Irene Stein we have living proof!

The natural oestrogen in Irena is not of a high enough level to turn you into a woman, but you will still see the beneficial effect it has on your hair, prolonging the anagen phase of the growth cycle.

Finally the folic acid, iron and other vitamins, minerals and amino acids will ensure that you are in top nutritional shape for new hair growth to occur to the maximum.

If you have any questions concerning the Irena formulation and how it can help your hair, or other health condition, please contact Irene Stein on:

09 950 9850 / 055 305 125, UK Customers - 07831 641199, Or email her at irenest@netvision.net.il