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Hair is an important part of looking and feeling good. IHRB wants you to be comfortable about the way you look and feel. With over 32 years of practical experience, we are committed to provide you with the latest and best advances in medical, surgical and other hair replacement methods.

- **1. DESCRIPTION OF HAIR:** A human scalp contains 90 to 160 thousand hair follicles. Each strand consists of three layers-cuticle, cortex and medulla. Hair is made of a fibre protein called keratin (the same substance our finger nails are made of). The hair root can be affected by many factors including poor diet, illness, drugs and medication, excessive alcohol, nicotine and imbalance of hormones. Adjacent to the hair follicles are the sebaceous glands, producing sebum, an oily substance, lubricating the skin and hair. All the other components of the scalp can directly or indirectly affect the behavior of the hair but does not cause 'common baldness'.
- **2. HAIR GROWTH:** Each hair grows through a follicle tube and has a cycle of growth, degeneration and replacement. The growth commences from the papilla or hair root, where the process of cell division is taking place constantly. Certain amino acids are absorbed through a network of capillaries to the hair root, feeding the dividing cells and allowing the formation of hair and growth. Between 90 to140 hairs can be shed by both males and females with a healthy head, which should be replaced between 2-3 months.

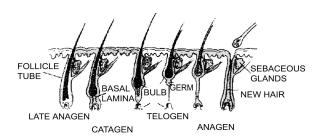
3. HAIR GROWTH CYCLE: Occurs in three stages.

Anagen: The active growing phase can last from two to six years. The longer the genetically programmed anagen phase, the longer the hair. That is why some people can grow waist- long hair and others only up to their shoulders. Shaving or cutting the hair makes no difference to the density, texture, health or speed of re-growth.

Catagen: This is a transitional phase which lasts about three weeks. The ejecting hair gradually separates from the hair root, taking a globular food sac with it. Approximately one or two percent hair is in this stage.

Telogen: The final or resting phase takes about two to three months. During this phase the ejecting hair has traveled near the tapered exit end of the follicle tube and will fall out in the normal manner, helped by brushing, washing and combing. Approximately fifteen percent of hairs are in this stage.

During this stage a new hair has commenced it's growth at the hair root and will travel up the follicle tube to take it's place- this completes the cycle and the Anagen phase recommences. Any change in one of these phases can alter the growth cycle. Baldness is caused when more hair is lost then is being replaced. Below is a diagram showing the three different stages:-





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- 4. CAUSES OF HAIR LOSS (ALOPECIA): Causes generally fall into the following categories:
 - a. Androgenic Alopecia (Male and female pattern baldness)
 - b. Anagen and Telogen Effluvium
 - c. Alopecia Areata or Totalis

Androgenic Alopecia (Male and female Pattern Baldness) The most common form of hair loss and is generally known as "Genetic Baldness", caused by a combination of hormone imbalances, genetics and age.

Androgens – Various of these hormones control the appearance and masculine characteristics. Testosterone, the most significant male hormone.

Genes – Inheriting the balding gene from either the mother or father's side.

Age – Can signal the hair follicles to produce an enzyme '5 alpha reductase', when combined with testosterone, converts to dihydrotestosterone (DHT). The roots get affected, causing the cell division to slow down, reducing the number of size of hair follicles, starting the process of male or female pattern baldness.

As the follicles become smaller, the hairs become finer, growing slower and shorter. The Anagen or growing phase is reduced and the Telogen or resting phase is lengthened.

(IHRB'S TREATMENT CAN ASSIST IN BLOCKING THE 'DHT', THEREBY STOPPING FURTHER THINNING AND REGROWING MORE HAIR - THE ANAGEN PHASE IS LENGTHENED).

The early signs of 'balding' is 'thin textured – poor quality hair'. Eventually the hair follicles shrink in size and can no longer produce normal healthy hair, causing it to disappear altogether.

Female Androgenic Alopecia or thinning hair generally occurs over the top and sides of the head. It affects approximately a third of post-menopausal women usually seen after menopause. It can also occur during puberty.

Four out of five men are affected by 'male pattern baldness' and can affect men in their early teens or up too their late forties, fifties and beyond. It may take from five to thirty years to become extremely bald. Men usually start by receding at the temples or thinning of their crown.

Over a period of years these two areas join together, producing a 'bald head'. Hair at the lower sides and back of the head are genetically resistant to the effect of DHT and usually grow for life. THIS IS WHY HAIR TRANSPLANTS GROW ON THE BALD AREA FOR LIFE.

Anagen Efflurium – Caused by drugs and/ or medication for chemotheraphy, etc,.

Telogen Effluvium – Caused by excessive number of hair follicles entering the resting stage. The most common causes are physical and emotional stress, surgery, illness and mental illness, rapid weight loss, large doses of vitamin A, pregnancy, birth control pills, menopause medication, anaemia, low blood count and thyroid abnormalities.



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Other causes for hair loss include blood pressure, gout medication, scalp disorders, exposure to toxic metals like aluminum, mercury, cadmium, lead and arsenic.

Alopecia Areata: Affects less than 1% of the population. Starts as a small circular 'bald patch', increasing in numbers and can lead to 'Alopecia Totalis' (Complete loss of scalp hair) and finally to 'Alopecia Universalis' (Complete loss of scalp and body hair). Although the cause is not clearly known, it is believed to be an auto-immune disorder.

Most types of Alopecia are difficult to treat. Over the years we have been able to treat a large number of people affected, very successfully. Most people wear a 'custom made wig or hairpiece' while hair loss is occurring.

Medication and Medical Advances: There are now impressive and significant advances for the treatment to prevent and redeem 'hair loss'. If the 'hair loss' is excessive and a person has been bald for a long time, 'hair transplantats' could be the best alternative.

DHT and 5 alpha reductase: After years of research, the enzyme 5 alpha reductase has been isolated as the main cause for converting the hormone 'testosterone' to 'dihydrotestosterone' or DHT, resulting in male and female pattern baldness.

We can now block the 'hormone receptors' that cause baldness. In doing so we can -

- i Arrest excessive hair loss.
- ii Improve the health of all the DHT affected hairs, and
- iii Commence the healthy re-growth from dormant and/ or diminishing hair follicles.

Our combination of "Specialized prescribed medical treatment', 'pharmaceutical', and 'herbal' preparations, 'organic' products and 'natural extracts' can reverse hair loss in men, women and children and re-grow most of the hair lost over the past 3 or 4 years. In fact, the treatment is more successful with women due to the nature of the female pattern baldness and consists of;

- i **'Topical Solution.**' A combination of prescription and non prescription medications, organic, herbal and other natural extracts.
- ii 'Oral'. Prescribed and/or non prescribed 'herbal tablets/capsules, minerals and vitamins.
- iii 'Hygiene Products' Dearma-clean. A pre-wash product. Organic Shampoo, and/or Conditioner.
- iv 'Follow up and Progress Reviews.'



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Once accepted on one of our programs, you will be informed about the total cost, at present and if any in the future. We will disclose full facts of every aspect of the program you require, leaving nothing hidden.

(S.F.Cohen.)
Managing Director
Institute of Hair Re-growth & Beauty

VARIOUS STAGES OF MALE PATTERN BALDNESS AND OUR RECOMMENDED OPTIONS

