KERRY SKIN CLINIC
SKIN, HAIR + NAILS SPECIALISTS

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Hair loss

Dermatologists comment that scalp hair loss seems to provoke more distress than many severe skin conditions. Unfortunately, hair loss may not be easy to remedy.

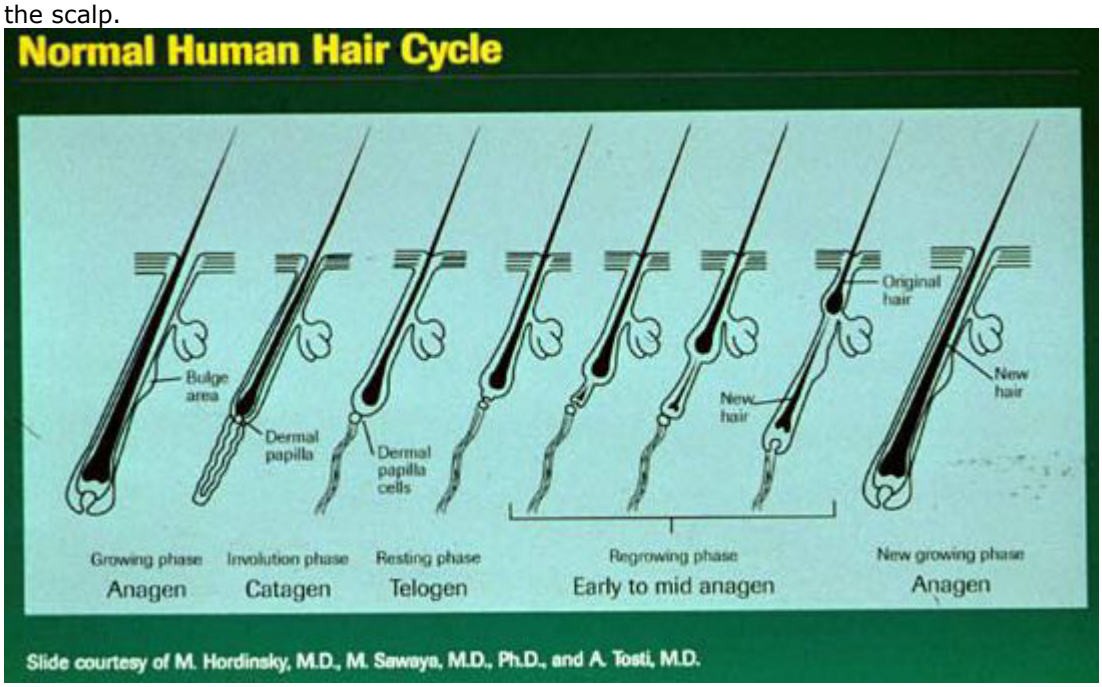
What causes hair loss?

Hair loss can be due to:

- Decreased growth of the hair
- Increased shedding of the hair
- Breakage of hairs
- Conversion of thick terminal hairs to thin vellus hairs

Hair cycle

Hair grows in a cycle: anagen (living growing hair), catagen (in-between phase) and telogen (resting or falling-out phase). Recently a new phase, ketogen, has been recognised; this is when the follicle is empty, after the telogen hair has fallen out and before the anagen hair is visible on the scalp.



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Anagen hair loss

Anagen normally lasts two to seven years. Hair loss occurs when anagen is interrupted by certain medications (e.g. anti-cancer drugs), or by the 'autoimmune' disease, alopecia areata. Anagen hair is tapered or broken-off.

Anagen hair loss

Hair shedding during chemotherapy

Hair lost through chemotherapy

Alopecia areata

Telogen hair loss

Telogen lasts a few months and is terminated by a new anagen hair. The result is shedding a hair with a bulb at the end (club hair). It is normal to lose 50 or more telogen hairs a day, rather more in autumn and winter. Excessive shedding results in telogen effluvium, often a couple of months after an event such as child-bearing, fever, an operation, weight loss or certain medications. Sometimes there appears to be no recognisable cause, and the shortened hair cycle can continue for years (chronic telogen effluvium).
New growth can be seen at the hairline as a sign of recovery.

Telogen effluvium

Pattern hair loss (androgenetic alopecia)

Genetic and hormonal influences result in gradual thinning of scalp hair with age as male or female pattern (androgenetic) hair loss. In some families this type results in male pattern alopecia and in others, considerable thinning in females (female pattern alopecia). It is apparent in about 50% of individuals by the age of 50 years.

Pattern balding

Male pattern balding | Female pattern balding | Severe female pattern balding

Internal conditions

Other causes of hair loss are associated with poor quality hair:

- Iron deficiency
- Deficiency of thyroid hormone

Replacement of iron or thyroid hormone respectively may result in prompt regrowth.

Hair shaft abnormality

If hair loss first occurs in childhood, it may be due to a genetic hair shaft abnormality. These are diagnosed by microscopic examination of the hair, and sometimes by scanning electron microscopy. A large number of different types of hair shaft abnormaility have been described, including:

- Fractures: trichorrhexis nodosa, trichoschisis, trichoclasis (trichothiodystrophy)
- Irregularities: trichorrhexis invaginata (seen with ichthyosis in Netherton's syndrome), Marie-Unna hypotrichosis (uncombable hair), pili bifurcati, pili annulati, pseudopili annulati, monilethrix (beaded hair), pseudomonilethrix
- Coiling and twisting: pili torti (twisted hair), wooly hair, trichonodosis (knotted hair)

Anagen hair loss in a child may be due to 'loose anagen syndrome'. Clumps of hair come out with combing. The hair loss gradually becomes less as the child becomes an adult.

Scarring alopecia

Trauma, infection and various skin diseases may injure the hair follicle resulting in localised areas of scarring and bald patches in which there are no visible follicles; this is called 'cicatricial alopecia'.
Infections that may cause cicatricial alopecia include *Staphylococcal* folliculitis or boils, and animal ringworm infection (tinea capitis).

Skin diseases that may cause cicatricial alopecia include folliculitis decalvans, lichen planopilaris, frontal fibrosing alopecia, alopecia mucinosa, discoid lupus erythematosus and scleroderma. Scarring hair loss of unknown cause is known as pseudopelade.

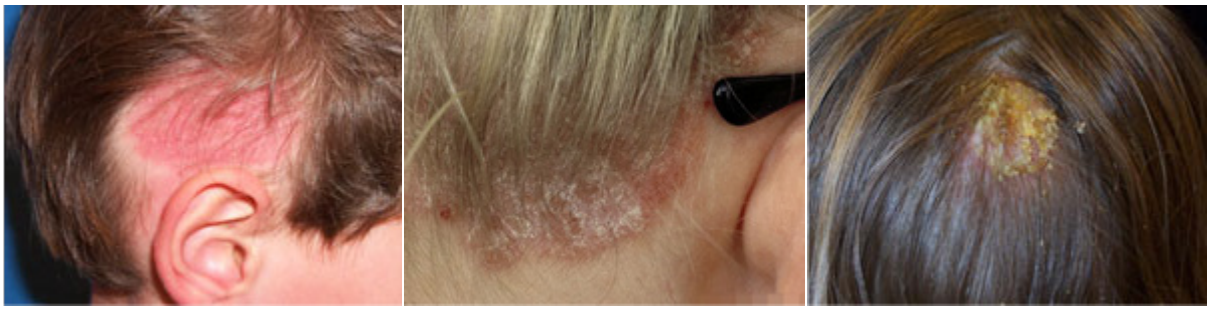
Scarring alopecia

Discoid lupus erythematosus | Folliculitis decalvans | Lichen planopilaris

Scalp conditions

Although they may cause permanent balding if neglected, early treatment of scalp infections such as tinea capitis prevents permanent baldness.
Hair loss caused by psoriasis, in which there are thick plaques of scale, recovers once the skin condition is controlled. Seborrhoeic dermatitis or atopic dermatitis can sometimes also cause hair loss temporarily.

Hair loss due to scalp conditions



Tinea capitis | Psoriasis © R Suhonen | Seborrhoeic dermatitis

Trauma

Hair can be pulled out by tight curlers or certain hair styles, sometimes resulting in permanently thinned areas (traction alopecia). The hair shafts can be broken by heat (hair dryer), or chemicals (perming solution or bleach) or brushing too often.
Trichotillomania is a form of alopecia resulting from repetitive pulling, plucking and breaking of one's own hair.

Traumatic forms of alopecia

Trichotillomania

Trichotillomania

Traction alopecia

Image supplied by Dr John Adams

Related information

On Dermnet:

- Alopecia areata
- Male pattern hair loss
- Female pattern hair loss
- Telogen effluvium
- Alopecia mucinosa
- Hair replacement

For more information:

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