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Hair Loss for Women Information

Hair loss is relatively common in women with about 30% experiencing at least some degree of thinning in their lifetime. Because female hair loss tends to be diffuse (less hair all over), rather than showing the characteristic "patterned alopecia" of men, and the fact that the frontal hairline in women is often maintained, there is a misconception that hair loss in women is rare – but it is not.

The psychological effects of hair loss can be significant, and many women are emotionally affected even when thinning is in its very early stages. This is, in part, due to the assumption that few women lose their hair and that, in contrast to men, where it is "OK to be bald," any hair loss in women is socially unacceptable. Both of these erroneous perceptions make dealing with hair loss particularly difficult for women.

To add to the problem, the widely used medication, Propecia, is not indicated for women, so there is a perception that medical progress in treating female hair loss is not as advanced, or that the medical community does not take the treatment of female hair loss as seriously. Lastly, because hair loss in women can so often be disguised with existing hair, many women choose to hide their hair loss from others. Not sharing their problem tends to isolate them and makes the ability to deal with their hair loss more difficult.

Hair loss in women is generally very gradual, with the rate accelerating during pregnancy and at menopause. It is more often cyclical than in men, with seasonal changes that reverse themselves, and it is more easily affected by hormonal changes, medical conditions, and external factors.

Fortunately, since most of the time women's hair loss is relatively mild and progresses very slowly, it is rare for women to lose so much hair that they can't hide the thinning with creative styling techniques and it is extremely uncommon for women to develop an area that is totally devoid of hair.

The most common pattern of hair loss in women is diffuse and since a diffuse pattern can be caused by a number of medical conditions other than common genetic hair loss, a thorough evaluation is particularly important. If an underlying medical cause can be found and treated, the hair loss can often be reversed.

The development of new surgical techniques, particularly Follicular Unit Hair Transplantation, allow many women who are losing their hair to have a completely natural restoration. When performed on a good candidate, this female hair transplant procedure can produce a dramatic change in a woman's appearance. (See photos of female hair restoration and a female hair transplant patient video.)

It is particularly important, however, for any women considering a surgical solution, to have a careful physical examination to make sure that the diagnosis is correct and to determine that they have an adequate donor hair supply. For those women in whom surgical hair restoration is indicated, special surgical skills are required to achieve optimal results. It is a mistake for a surgeon to assume that hair loss in women can be treated the same way as in men.

The sub-sections under hair loss in women explain what actually causes female hair loss, how it is classified, and how the diagnosis is made. (Cause, Classification, Diagnosis). Medical and surgical treatments are discussed in detail in other parts of this site (Medical Treatments, Hair Transplantation).

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The Classification of Hair Loss in Women

As discussed in the section on Causes, women's hair loss can be classified into diffuse hair loss, localized hair loss, or patterned hair loss. It can also be divided into scarring and non-scarring types. Since the diffuse, non-scarring female hair loss caused by hereditary is so common, it has its own special classification that is based upon the degree of thinning called the Ludwig classification.

The Ludwig Classification uses three stages to describe female pattern genetic hair loss: Type I (mild), Type II (moderate) and Type III (extensive). In all three Ludwig stages, there is hair loss on the front and top of the scalp with relative preservation of the frontal hairline. The back and sides may or may not be involved. Regardless of the extent of hair loss, only women with stable hair on the back and sides of the scalp are candidates for hair transplant surgery.
Type I. Early thinning that can be easily camouflaged with proper grooming. Type I patients have too little hair loss to consider surgical hair restoration.

Type II. Significant widening of the midline part and noticeably decreased volume. Hair transplantation may be indicated if the donor area in the back and sides of the scalp is stable.

Type III. A thin, see-through look on the top of the scalp. This is often associated with generalized thinning.
it is important for all women experiencing hair loss that an accurate diagnosis is made. This is particularly true when the hair loss is diffuse, as underlying medical conditions may be a contributing factor.

The Diagnosis of Hair Loss in Women

The diagnosis of "female pattern" hair loss is relatively straightforward when there is a history of gradually thinning in the front and/or top of the scalp, relative preservation of the frontal hairline, a positive family history of hair loss, and the presence of miniaturization in the thinning areas.

Miniaturization is the progressive decrease of the hair shaft's diameter and length in response to hormones. It can be observed using a densitometer, a hand-held instrument that magnifies a small area of the scalp where the hair has been clipped to about 1mm in length. With this instrument miniaturization is easily apparent.

Normally follicular units (natural hair groups) are made of predominately of full-thickness, healthy terminal hair. With miniaturization one or more hairs within each group begin to thin. Eventually these hairs are lost.
If the hair loss is diffuse (thin all over) rather than in the typical female pattern on the front and top, the diagnosis can be more difficult. The presence of miniaturization in the areas of thinning usually confirms the diagnosis of androgenetic alopecia, however, if the diagnosis is still unclear, a number of other conditions must be ruled out. These have been listed in the section on Causes.

Besides densitometry, two other common diagnostic tests that can be performed in the physician's office are the hair-pull and hair pluck. In the hair pull, the physician grabs on to 20-30 hairs with his fingers and gently pulls on them. If five or more come out in the pull then this is suggestive of the increased shedding associated with telogen effluvium, a reversible type of female hair loss seen with stress, pregnancy, drug reactions and a variety of other conditions. Telogen effluvium generally occurs 2-3 months after a stressful event and affects 35-50% of one's hair. Over 300 club hairs (telogen hairs that have rounded ends) can be shed per day shed. (See Causes)
In the hair pluck, 20 to 30 hairs are forcibly plucked from the scalp with a small clamp. The hair bulbs are then examined under a microscope to determine the ratio of anagen (growing) hairs to telogen (resting) hairs. Normally, at least 80% of

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the follicles should be in the anagen stage. A lower ratio would suggest telogen effluvium. With the hair pluck, various abnormalities of the hair shaft may be observed that can contribute to hair breakage and poor growth.
Anagen effluvium occurs when hair is shed in its growing phase and is characterized by large numbers of tapered or broken hairs (>80%). It can be caused by chemotherapy or radiation and can result in extensive hair loss in women.

Chronic Telogen Effluvium is a condition whose diagnosis is often missed, so it is worth mentioning briefly. Chronic TE affects women age 30-60. It starts abruptly with or without an initiating factor. Chronic TE presents with diffuse thinning with accentuation at the temples – often more apparent to the patient than to others. It has a long fluctuating course and patients can lose up to 50-400 hairs/day. There is increased shedding of telogen (club) hairs with a positive hair pull.

Fortunately, the condition does not lead to complete baldness. Chronic TE can be expected to resolve spontaneously in 6 months to 6-7 years.

When the cause of the hair loss is still uncertain, further diagnostic information can be obtained from a scraping and culture for fungus and a scalp biopsy (sent for regular and special tissue stains and examined under both horizontal and vertical sections. A dermatologic consultation is warranted whenever the cause of hair loss is unclear.
Laboratory Evaluation for Androgen Excess

Occasionally, when a woman presents with female pattern hair loss, increased androgen production may be a contributing factor. The following signs and symptoms suggest that specific blood tests might be appropriate to rule out underlying sources of excess androgen:
1. Irregular periods - for an extended period of time
2. Cystic acne - severe acne which usually leaves scars
3. Hirsuitism - increased body hair that doesn't normally run in your family
4. Virilization - appearance of secondary male sex characteristics such as a deepened voice
5. Infertility - inability to become pregnant
6. Galactorrahea - breast secretions when not pregnant (this is due to prolactin which is not actually an androgen)

It is important that when any of these symptoms are present, or these conditions are being considered, that you are under the care of a physician, to receive a proper evaluations and correct treatment if needed. Generally a gynecologist is the specialist most helpful for these problems.

Some of the tests that your doctor might order when considering androgen excess include:
• Total and Free Testosterone - the hormone that is mainly responsible for male secondary sex characteristics
• DHEA-Sulfate - a precursor to testosterone
• Prolactin - the hormone that enables the breast to secrete milk

<u>Diagnostic Tests for Other Medical Conditions:</u> Other tests that are commonly ordered to screen for underlying medical conditions include:
• CBC (complete blood count) - for anemia, blood loss and certain vitamin deficiencies
• Serum iron and iron binding capacity - for anemia
• T3, T4, TSH - for thyroid disease
• ANA - for Lupus
• STS - for Syphilis

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Localized Hair Loss

Localized hair loss in women is distinct from the diffuse thinning seen in female pattern alopecia. The following are the more common causes of local alopecia. A dermatologist should be consulted if any of these conditions are suspected. Note: the term alopecia is synonymous with hair loss).
Alopecia areata is recognized by the sudden appearance of discrete, round patches that are completely devoid of hair.

Occasionally, the entire scalp may be involved (alopecia totalis) and even the entire body hair including the eyebrows and eyelashes (alopecia universalis). When localized, the lesions respond well to injections of cortisone. Generalized alopecia is more difficult to treat. The prognosis is better the older the age of onset. Alopecia areata can occasionally be associated with other conditions such as thyroid disease.
Hairstyles that exert constant pull on the hair, such as "corn rows" or tightly woven braids produce a characteristic pattern called "Traction Alopecia" that can be identified by a rim of thinning or baldness along the frontal hairline and at the temples. This is easily prevented by changing one's daily hair-care habits, but once the hair loss occurs, it may be permanent. Fortunately, this condition is easily amenable to surgery if the cause can be eliminated.

Trichotillomania is a condition seen more commonly in young females, where the person twists, tugs or pulls out her hair. This can be scalp hair, eyebrows or eyelashes. The diagnosis is made by observing short, broken hairs in the area of hair loss. The patient may deny having this habit.

Face-lift and brow-lift procedures can result in local hair loss in the vicinity of the incision. This may present as hair loss along the frontal hairline, in the temples, or adjacent to a surgical scar. If female patients do not have genetic hair loss, and have a good donor supply, they may make excellent candidates for a hair transplant.

Tinea Capitis is a fungal infection of the scalp. It presents as irregular, red and scaly patches and/or small bald patches with broken hairs. The diagnosis is made by scraping a small piece of scale from the scalp and obtaining a bit of hair for testing. The specimens are sent for special fungal stains and cultures.

Pseudopalade is a non-specific scarring alopecia that generally starts on the top of the scalp and extends into the surrounding hair bearing areas with finger-like extensions. The areas look smooth and white due to the scarring and loss of hair follicles.

Lichen Plano-pilaris is an inflammatory condition of the scalp that presents with redness, scale and localized areas of hair loss. There is a characteristic scaling at the edge of each balding patch.

Discoid Lupus Erythematosus (DLE) is the localized form of Systemic Lupus Erythematosus (SLE), a potentially serious autoimmune disease. The localized form presents with red, scaly, pigmented patches of scarred skin. The localized form of the disease is mostly a cosmetic problem, but patients must be evaluated for the systemic disease as well with specific blood tests such as an ANA. SLE can cause diffuse (generalized) hair loss and both the local and systemic forms of the disease may cause sensitivity to the sun.