



## Hair Loss, Hair Breakage and Hair Growth

Some of the topics we will cover here are:

*Hair Structure*  
*Hair Life Cycle*  
*Hair Growth and How to Make Hair Grow Faster*  
*Hair Loss and Hair Loss Treatments*  
*Hair Breakage and Hair Breakage Prevention*

Hair loss is a complicated subject. There are many reasons why you might be experiencing hair loss (hair coming out at the roots or not growing from the root) or hair breakage (hair breaking). We will first discuss the normal hair growth process, then we'll talk about some reasons why your hair might not be growing as much as you'd like and what you can do about it.

### **Hair Structure**

Hair is made of a form of protein. Hair grows from the roots. So, the oldest part of your hair will be the part at the ends- furthest away from your scalp. Hair is essentially dead. Once it has come out of your head, there is nothing you can do to improve the structure of the hair itself. However, there is a lot you can do to damage the hair. Once the damage has been done, repairs are limited. If the structure of the hair itself has been damaged, the repair to that particular part of the hair is irreversible. You have to wait until the hair grows out more and cut off the damaged part or until the hair is replaced by a new hair (you will see soon this is a very long proposition)

### **Hair Life Cycle**

On a normal head of hair there are roughly 100,000 strands of hair, each going through its own cycle. Different hair strands will be at different phases at any given time. First, hair grows. This is called the anagen phase. This lasts from 4-6 years. Hair then rests. This is called the catagen phase. The hair follicle (the pocket in the scalp that holds the hair) actually regresses during this time. Then, hair sheds. This is called the telogen phase. Normally, about 90% of hairs are in the anagen phase at any point in time. The average person sheds about 50-60 hairs per day (the last phase of the hair cycle. These phases can be disrupted by stress, medicines, genetics (male pattern baldness) and other reasons.

## Hair Growth

On average, hair grows at a rate of about 1/2 inch per month. But, this varies by person based on genetics. Each person will have a maximum growth rate that she can attain. Nutrition, stress levels and the health of the scalp also affect the hair growth rate. Many people confuse hair growth with hair length. If your hair is growing at its maximum rate yet is breaking off, it will appear that your hair is not growing. Most people do not have hair that is not growing. Getting the proper rest, drinking enough water, treating your scalp well and the getting the proper nutrition, including supplements (hair vitamins) can help you reach your maximum potential hair growth.

## Hair Loss

Baldness or hair loss in both men and women is sometimes due to disease. Examples follow. Hair loss can be triggered by excessive weight gain or loss in a short period of time. High fever can cause hair loss. Chemotherapy drugs can cause hair loss. Lack of iron can cause anemia, leading to hair loss. An over productive or under productive thyroid can lead to hair loss.

Other reasons for hair loss include:

**Genetics**- some people have a built in trigger that causes the follicles to grow smaller and even shut down with age. This is known as male pattern baldness or female pattern baldness.

**Malnutrition**- the lack of nutrients in the diet can cause hair loss.

**Traumatic stress**- Can lead to hormone imbalances and cause hair loss.

**Autoimmune disorders** (alopecia areata)- exact causes have not been determined. Can cause hair loss from either just patches here and there to complete baldness on the whole body.

**Post pregnancy changes**- hormone imbalances triggered during pregnancy can cause hair loss.

**Mechanical**- excessive pulling or twisting of the hair (trichotillomania) can cause hair loss that can become permanent. Some people actually pull the hair or twist hair as a nervous habit. But, wearing the hair in styles like braids or pulled back, if done too often and too tight can lead to hair loss, which may even become permanent.

**Local Scalp Conditions**- Modern dermatology has concluded by hair loss is triggered by several factors. These factors include poor circulation to the scalp and sebum (natural waxy substance produced by the scalp) clogging pores. Treating these conditions, improving circulation and unclogging pores will help with this type of hair loss.

**Male-Pattern Baldness**-Male-pattern baldness, also known as androgenic

alopecia, is the most common type of baldness in men. A single, dominant gene controls this. The baldness usually starts at the temples and the hairline recedes. Often, the crown of the head will become thin or bald also. Some men only get balding in one or the other area. The hair in the balding areas starts out as long and thick and changes into fine, sprouts that grow at a slower rate. If a man begins to lose his hair during his teen years, there is a good chance he will become completely bald on the top of his head.

**Female-Pattern Baldness-** The cause of the failure to grow new hair in female pattern baldness is not well understood. Generally it genetically predisposed (passed down), occurs with aging and is associated with levels of hormones- especially androgens, the male sex hormones. Changes in the levels of androgens can affect hair production. For example, after menopause, many women find that the hair on the head is thinner, while their facial hair is coarser. Although new hair is not produced, follicles remain alive, suggesting the possibility of new hair growth.

The typical pattern of female pattern baldness is different from that of male pattern baldness. The hair thins all over the head, but the frontal hairline does not recede. There may be a moderate loss of hair on the crown (back top of the head), but this rarely progresses to total or near baldness as it often does in men. This type of balding usually begins around the age of 30 and becomes more noticeable at age 40; it can be more evident after menopause. This type of hair loss is permanent. Female pattern baldness is much more easily treated than male pattern baldness.

### **Hair Loss Treatments**

As we discussed, there are several reasons why you may be losing your hair (which we define as the hair missing from the roots). The normal aging process produces thinner and thinner hair for many people and slows down or even stops the growth phase in many of the hair follicles. Medicines, stress and improper nutrition or improper treatment of the scalp can lead to hair loss. The general term for hair loss is alopecia. There are many types of alopecia ranging from temporary alopecia to permanent alopecia. Some forms are treatable. Some are not as treatable. If you have "male pattern baldness", two treatments have been FDA approved to be effective at stopping and possibly reversing of the hair loss. Those treatments are Propecia (a tablet taken once a day). The other treatment is Minoxidil (sold under the brand name Rogaine). Propecia is for men only, leaving Minoxidil for women. Even Minoxidil and Propecia have limited ability to **regrow** hair. Their primary benefit is in stopping further hair loss. Once the treatments are started, they must be continued or the hair loss will begin to progress again. For this reason, they are called treatments, not cures. There are herbs (saw palmetto, nettle and pygeum africanum that may have similar benefits to these two drugs.

Much hair loss is attributed to hormonal imbalances, particularly an overabundance of male hormone. DHT (dihydrotestosterone) has been labeled a culprit. Many over-the-counter hair loss products target reducing the amount of DHT or decreasing its ability to become active. DHT shrinks hair follicles making it impossible for healthy hair to survive. When DHT becomes more active, it reacts with sebum and cholesterol found on and within the scalp. This DHT/sebum/cholesterol mix is shed into hair follicles, where it slowly narrows the

tiny opening, causing the follicle itself to become shorter.

If your hair loss is from less than optimal nutrition or an unhealthy scalp, there are over-the-counter products that can help. Treasured Locks offers two types. We offer hair growth supplements (vitamins, amino acids and herbs) that can help if there are deficiencies in your diet. We also offer Treasured Locks H2G Hair Growth Serum, a topical oil blend of all natural ingredients scientifically proven to promote longer, healthier hair. Made from the highest quality Emu oil (AEA food grade certified), naturally extracted carrier oils and a proprietary blend of the finest quality, steam-distilled essential oils, our serum is unlike any other on the market. Emu oil and essential oils have been independently tested and shown to reduce inflammation, increase circulation and improve the growth phase of the hair life cycle.

### **Hair Breakage and Hair Breakage Prevention**

The second variable that will affect how long your hair can be is hair breakage. Hair will break if not treated properly. You should treat your hair like fine fibers. We have tips in other documents on proper hair care. This is vitally important for kinky African hair, which tends to be both dry and fragile. Many African American women complain that they cannot "grow" hair. When, in reality, their real difficulty is keeping the hair they have grown due to breakage. Perms (relaxers), coloring, excessive styling with heat and other things can weaken otherwise healthy hair. It is important to keep this in mind if you are doing these things to your hair.

Following a good hair care regimen can help slow hair breakage. The right shampoo, conditioner and moisturizers are essential to hair growth. We have written papers on hair care for natural hair, permed hair and children's hair. These are available in the Reading Room at <http://www.treasuredlocks.com>

### **Summary**

This short paper is intended as a quick primer on the topics of hair loss, hair breakage and growing longer hair. It is important to know the basics so that you can diagnose why your hair is not growing at the rate you would like or does not have the length you would like. If you have serious hair loss, we encourage you to see a dermatologist. A few minutes and a few dollars spent with a dermatologist might save you a lot of time and money spent trying to treat serious alopecia with over-the-counter remedies.

While nothing can give you instantly longer hair, there are ways to maximize the amount of hair you have. By keeping your scalp healthy, maintaining the proper moisture and oil balance on your hair and getting the proper nutrition, you can make sure your hair grows at its maximum rate and does not break off. This is the secret to long and strong hair.