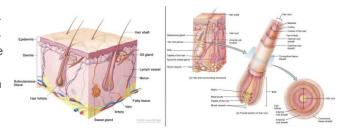
# HAIR RESTORATION

2015

## Scientific Education

#### How does hair grow?

At any one time, about 90% of the hair on a person's scalp is growing. Hair is made up of a protein called keratin that is produced in hair follicles in the outer layer of skin. As follicles produce new hair cells, old cells are being pushed out through the surface of the skin at the rate of about six inches a year. The hair you can see is actually a string of dead keratin cells. Each follicle has its own life cycle that can be influenced by age, disease, and a wide variety of other factors. This life cycle is divided into three phases:



Anagen -- active hair growth that lasts between two to six years

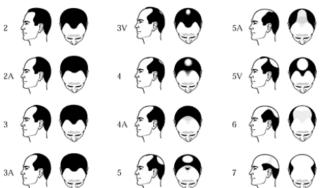
Catagen -- transitional hair growth that lasts two to three weeks

Telogen -- resting phase that lasts about two to three months; at the end of the resting phase the hair is shed and a new hair replaces it and the growing cycle starts again.

#### What is hair loss?

Everyone loses hair. It is normal to lose about 50-100 hairs every day. An average person has approximately 100,000 - 150,000 hairs grown in follicles. If you see bald patches or lots of thinning, you may be experiencing hair loss.

The Norwood Scale is used to determine your patterns.



#### What are the causes of hair loss?

There are many causes of hair loss and can affect your scalp or your entire body. It can be the result of heredity or genes, certain medications, hair grooming techniques, stress, hormones, child-birth, diet or an underlying medical condition. Aging slows down the growth cycle. Anyone — men, women and children — can experience hair loss. The most common cause of hair loss is a medical condition called hereditary hair loss. About 80 million men and women in the United States have this type of hair loss.



## Emotional effects of hair loss

This article is taken from emedexpert.com. It

is included as the emotional effects of hair loss is the main reason people seek solutions or hair restoration. "It isn't the purpose of this article to mock, depress or hit someone's sore spot. This list is intended to give a real facts and understanding of the scale of the problem. It may be interesting for both hairy and not much.

1. The end of youth: concerns about getting older. Hair loss causes both men and women to look older. Consequently, for many the advent of hair loss, (more than with any other physical aspect), dramatically signals the end of youth, vitality and desirability.

The unconscious association is: Loss of hair = Loss of youth = Inevitable aging

- 2. Inability to style the hair. Many hair loss sufferers are frustrated at the time and trouble necessary to camouflage thinning hair and the inability to style their hair as they would like.
- 3. Dissatisfaction with appearance and body-image. The loss of the hairline can change a person's appearance substantially. Hair loss changes the appearance of the face by shifting the balance of the face to the forehead, resulting in an aged appearance.

A study revealed that men who had more profound hair loss were more dissatisfied with their appearance and were more concerned with their older look than those with minimal hair loss. This effect cut across all age groups but was more prominent in the younger individuals.

The research also indicates that women tend to be more upset than men by their hair loss. A 1992 study in the Journal of the American Academy of Dermatology that compared the psychological impact of hair loss on men and women found that women had a more negative body image and were less able to adapt to the loss.

In fact, it has been scientifically proven through studies that women tend to suffer more emotionally and psychologically than men on losing hair. The results of these tests showed that women were much more worried about the way they looked than men. They tend to feel insecure about their appearance and how the world and the people around them will accept them.

- 4. Low self-esteem. Physical beauty is one of the cornerstones of self-esteem and it is one of the most vulnerable. The self-esteem levels and other measures of self-worth drop significantly when hair loss occurs.
- 5. Loss of personal attractiveness and fear of not looking attractive to others. Hair is an important determinant of physical attractiveness and a mean of expressing individuality. Hair loss affects the individual's feelings of attractiveness.

For balding women it is especially hard to live in a society that places great value on youthful appearance and attractiveness.

Because women are famous for spending a lot of time and money grooming, dying, curling, drying, and styling their hair to make it look its best, when they begin to lose their hair, it is extremely traumatic. This cosmetic setback is quite intense when a woman is used to having hair and suddenly finds herself losing it. They can have a lot of trouble dealing with the reality of hair loss.

6. Embarrassment, Loss of confidence, Shyness. Although full head of hair cannot guarantee instant confidence, studies have shown that

### **Their Stories**

**Testimonials** 

"I had recently gotten divorced and was facing the single life again. I was totally against getting the old strip hair transplant method offered by most large chain hair transplant places. AndroSmart was different. Besides offering the comfort of their Class A service. they also perform the NeoGraft surgical hair transplant technique. This was so easy! My recovery time was fast and I didn't have to get a large chunk of my scalp cut out to give excellent results." D.G



80%

WORTH IT RATINGBASED ON 199 REVIEWS

Real Self

#### **Emotional affects of hair loss continued**

And it isn't just men. Statistics regarding female hair loss are so difficult to compile mainly because of a tendency on the part of women with hair loss to camouflage and hide a condition that they feel stigmatized by.

- 7. Social teasing and humiliation. When hair loss reaches a stage of visible condition it can make the person the object of teasing or scorn. Studies show, that 60 percent of all bald men are teased at some point in their lives.
- 8. Feelings of depression and introversion. In extreme circumstances, some people really take hair loss badly and get highly distressed about it, up to the point of getting into depression.

Some people make assumptions that they are losing something about their control of their life, things they really can't reverse when they start losing their hair.

Most of the research shows that people with alopecia have higher levels of anxiety and depression.

- 9. Subconscious emotions of envy and jealousy. Those suffering from hair loss often experience feeling of jealousy of men with full, healthy heads of hair, because they desperately covet what non-bald people have.
- 10. Work-related problems. Hair loss may affect someone who is in front of the camera or who needs to be in the public in a very devastating way professionally.
- 11. Negative effects on social life. Hair plays an important role in our social lives. Upon meeting someone, one of the first things you notice is their hair. Before a social engagement, it is very important for us to look good, and a good lock of hair is what completes our appearance. Those affected by hair loss become aware of how important hair is in our social lives quickly.

Hair loss may cause the person to limit social activities. Some people avoid seeing friends and stop going out except to work.

Surveys have shown that around 40% of women with alopecia have had marital problems, and around 63% claimed to have career related problems9.

- 12. Wearing hats or caps even in warm weather. Many people begin wearing more hats or caps to try to disguise their thinning hairline.
- 13. Start exercising to improve physique. For some hair loss may spark self-improvement tactics like starting to work our more. The improvement in physique gives more confidence, thus making less worry about hair loss.
- 14. Dress nicer. Dressing better is a simple and sure way to improve appearance and self-confidence. Although stressful, balding isn't the end of the world!
- 15. Grow a beard or a mustache. For some balding men behavioral coping mechanisms include growing a beard or moustache. By growing a beard, goatee, or moustache, it will take attention away from the head and people will focus on the new "accessory".
- 16. Bald men are rated as more intelligent. In fact, bald men are perceived as being more intelligent and have an above average sense of self-worth.

Cash's 1988 study asked three groups of people - young college students, slightly older Old Dominion staffers and aging faculty members - to look at slides of bald and haired men. They was asked to rate the person in each slide for qualities such as self-assertiveness, social attractiveness, intelligence, life success, personal likability, physical attractiveness and perceived age.

Believe it or not, the bald or balding models were perceived more negatively on every dimension except intelligence."



## What to expect at initial consultation

Your hair restoration journey begins with a private complimentary consultation with Dr. Evans. You will be asked about your expectations, receive an examination of your hair and scalp, and be required to fill out a complete medical history.

Please bring information on all previous surgeries, prescriptions, over-the-counter medications, vitamins, and herbal remedies that you take.

After a detailed discussion, you will know if you are a candidate for a hair restoration. We will educate you on all of the options and combinations of therapies available to you. You will leave with a detailed cost, next steps outlined and all of your questions answered. An online consultation is also available.

How is the hair and scalp examined?

Our state of the art HairCheck device allows us to get an accurate reading as to what your Hair Mass Index is.

Hair Mass Index- or HMI is a single number that precisely and conveniently combines hair density and hair caliber for a quick, non-invasive method of tracking hair loss or hair regrowth. It gives us an accurate sign of your hair health. It also gives an accurate reading of what amount of hair loss you may be experiencing prior to your check-up. These readings are essential to knowing what treatments are working, and what may not be as effective.

How is a HairCheck measurement performed?

A tiny area of the scalp is monitored by marking four tiny, washable dots of ink. The hair within that square is carefully isolated and gathered in a bundle, which is then measured using a calibrated HairCheck device. More than one area may be measured to compare "stable" areas to areas of thinning.

How often do I need to have my HairNumber checked?

Because hair loss/hair regrowth changes can take months, HairNumber measurements are normally performed every 90 days.

I've had my initial consultation, and I am interested in treatment, what next?

Depending on the treatment recommended, the doctor may provide prescriptions for any of the medicines or creams. Before photographs will be taken with a state of the art derm-camera. Each session photos will be included in the patient's charts and emailed directly to you for your own personal documentation.

Finances & Pricing: A deposit will be required before the treatment appointment is booked and the balance will be due the day of procedure. Financing is available. Fees are paid per follicle. The average rate is \$9 per follicle. According to RealSelf.com, 127 reviews gave it a 94% Worth It rating. The average price paid is \$5,125. 500 follicles would equal the circumference of a DVD disk.

Pre and post procedure information is allocated for your review.

## **Laser Therapy for Hair Restoration**

Used extensively in Europe and the Far East for over thirty years, Low Level Laser Therapy (LLLT) has been the subject of over 2,500 scientific papers published worldwide. To date, there have been no reported adverse side effects to the therapy. Practitioners are recommending laser therapy more than ever before in response to North American patients who are increasingly willing to try less expensive and less invasive alternative treatments. Low level laser therapy is a non-invasive, non-toxic modality that has many potential benefits.

**Uses of Lasers in Medicine.** Lasers have been used in medicine since their invention for the diagnosis and treatment of various diseases and conditions. There are two types of medical lasers: high power and low power. High power lasers are most familiar to us, as they are used to cut or burn tissue (Lasik, skin resurfacing, and laser hair removal). Low level lasers, on the other hand, are used to stimulate tissue repair though a process of photobiostimulation without any associated burning, sensation, or any other sensation.

What is Low Level Laser Light? Low –level laser light is compressed light of a wavelength from the cold, red part of the visible spectrum. It is different from natural light in that it is one precise color; it is coherent (travels in straight line), monochromatic (a single wavelength) and polarized (its beam 'vibrates' in a single plane of orientation). These properties allow low level laser light to penetrate the surface of the skin with no heating effect, no damage to the skin and no known side effects. Rather, laser light directs biostimulative light energy to the body's cells, which then convert it to chemical energy, which may then have such beneficial effects as promoting natural healing as well as pain relief.

What is Low Level Laser Therapy? Low-level laser therapy is the application of red ad near infrared light over areas of the body in order to affect cellular metabolism and cellular processes. Low-level therapy uses 'cold' (non-thermal) lasers to direct biostimulative light energy into the body's cells without injuring or damaging them in any way. The therapy is precise and accurate, and offers safe and effective treatment for a wide variety of conditions. The investigation of low level laser therapy in the treatment of hair loss began in the 1960's when wounds on mice were treated with LLLT unexpectedly grew back hair that was thicker and healthier than normal.

**How Does Low Level Laser Therapy Work?** Low-level lasers supply energy to the body in the form of harmless, non-thermal protons of light. Light is transmitted through the skins layers (dermis, epidermis, and the subcutaneous tissue or tissue fat under the skin) at all wavelengths in the visible range. However, light waves in the near infrared ranges penetrate the deepest of all light waves in the spectrum. Certain wavelengths improve the energy metabolism of the treated cells, depending on treatment parameters. Generally you will treat the desired areas with LLLT for around 30 minutes, every other day to maximize cellular regrowth.

At Enfuse, we offer an in house treatment and also can provide Laser Cap to patients interested in ordering the device for at home use. Cap runs 3,000 dollars for in home use and can be purchased through us at Enfuse.

Can I use Laser Therapy in conjunction with Propecia, Minoxidil, or other treatments? Laser Therapy can be used as a standalone treatment regimen or in conjunction with FDA approved medications. Laser Therapy has also been shown to accelerate healing and decrease discomfort after hair transplant surgery.

Neograft is an FDA approved breakthrough surgical device that facilitates the harvesting of follicles during an "FUE-type" hair transplant. First described in medical literature around 2001, "F.U.E "or "Follicular Unit Extraction" is the least invasive hair transplant method available out now. FUE allows for the delicate harvesting of individual hair follicles and follicular-units from the donor area without a scalpel or stitches, and therefor leaves no scarring.

What is the main benefit of FUE over "linear" or "strip" harvesting? FUE donor areas heal faster and more comfortably than linear or strip harvest procedures. Once healing is complete, the patient has the option of wearing a very short haircut without the worry of hiding a linear scar. Without the need for stitches, downtime is more comfortable and shorter with fewer activity restrictions during healing.

What are some benefits of Neograft over other FUE techniques? In qualified hands, the highly ergonomic mechanical Neograft device allows for gentle, efficient and accurate harvesting of hair follicles. Neograft is the most precise FUE device available and the only instrument that allows for tiny customized depth adjustments for each patient- smaller than a fraction of a millimeter. Neograft patients reach their goal with less time in the procedure room or fewer transplant procedures compared to other FUE techniques.

Who is a good candidate for Neograft? Patients who would like the option of wearing a very short haircut or those who want the least amount of activity restriction after their transplant procedure like athletes or those physically active. It is also a great option for those wanting "scar camouflage" from a previous linear harvest. It is also done for hairline touch ups, and repairs. Eyebrow and facial hair transplants are also available with the Neograft device.

## How to Get the 7 Essential Anti-Balding Vitamins and Nutrients

BY K. Aleisha Fetters DETAILS MAGAZINE, AUGUST 2013

No, it's not your imagination. Your hair is thinning. According to board-certified hair-restoration physician Alan Bauman, M.D., 20% of men start to lose their hair in their twenties. While genetics play a big role, you still have some control over your hairline—and we aren't talking plugs or hair-in-a-box remedies, here. We're talking food. That's right, if your reflection shows an ever-growing forehead, put down the hat and reach for the fridge instead.

"Like any other part of the body or component of health, hair needs a variety of nutrients to grow and be healthy," says nutritionist Rania Batayneh, M.P.H., author of The One One Diet. "Because nutrients go to essential tissues first, like muscles and organs, before they go to hair, it's important to get both enough and a variety of nutrients to ensure a healthy head of hair."

Here, the nutrients you need for a full head of hair—and the foods that pack them:

Omega-3 Fatty Acids Good for more than your brain, omega-3 fatty acids nourish your whole noggin. The essential nutrient reaches both the hair shaft and the cell membranes in your scalp, nourishing the follicles and promoting healthy hair growth, according to Batayneh. Plus, they add elasticity to your hair, preventing it from breaking off and ending up in your shower drain. But get this—the body can't produce omega 3-fatty acids on its own; whatever you eat is what your body gets. So dig in!

The foods to eat: Flaxseeds, walnuts, salmon, tuna, kale, Brussels sprouts, rapeseed oil.

**Zinc** Boosting tissue growth and repair, zinc helps keep your scalp and hair stay healthy. It also regulates hormones (testosterone included) in the body and helps maintain production of oil-secreting glands on the scalp that help your hair grow. There's no need to go overboard, though. High levels of testosterone are actually linked to hair loss, Bauman says. According to the Office of Dietary Supplements, 11 mg a day is all you need. While it's not proven your body will go on a T rampage if you consume too much zinc, there's no need to tempt hair follicle fate.

The foods to eat: Chickpeas, wheat germ, oysters, beef, veal liver, roast beef.

**Protein** Quick chemistry lesson: Your hair is pretty much pure protein. So if you don't eat enough for both your muscles and hair, you'll have bulging biceps—but a bald head. And even if you do hang onto your hair, eating too little protein can turn it gray, Bauman says. Eat a diet rich in high-quality, naturally occurring protein. Wait, you're a veg or a vegan? No worries. As any good meatless eater knows, protein abounds in more than just animal sources.

The foods to eat: Greek yogurt, eggs yolks, kale, peanuts, beans, peas, lentils, tofu, chicken, turkey.

**Iron** When it comes to healthy circulation, eating enough iron is clutch. Iron helps deliver blood to the body's cells. Neglect the nutrient and your blood can't carry enough oxygen to your scalp for good hair growth, says Bauman. "Many doctors have seen a correlation between treatment for iron-deficient anemia and an increase in hair growth," Batayneh adds.

The foods to eat: Dark leafy greens, whole grains, beans, red meat, turkey, egg yolks, clams, mussels, oysters.

**Vitamins A and C** Both vitamins contribute to the production of sebum, the oily substance that your hair follicles spit out. Nature's hair conditioner, it keeps your hair from breaking off. Plus, vitamin C increases the amount of blood-boosting iron that your body can put to use, says Batayneh. While some vitamin A is good for your scalp, more than 15,000 IU a day can actually spur hair loss, says Bauman, who notes that the recommended daily allowance of the vitamin for men is 5,000 IU a day.

The foods to eat: Swiss chard, spinach, broccoli, sweet potatoes, pumpkin.

**Magnesium** Magnesium is the fourth most abundant mineral in the body and is needed for more than 300 biochemical reactions—hair growth included, according to the National Institute of Health. But research from the Medical University of South Carolina shows that 68% of U.S. adults don't get enough of the essential nutrient, contributing to increased inflammation in the body. Another result? Hair loss. Batayneh notes that magnesium deficiencies have been linked to hair loss in both men and women.

The foods to eat: Almonds, spinach, cashews, lentils, brown rice, halibut.

**Selenium** A trace element that helps the body make selenoproteins, which regulate reproduction, metabolism, DNA synthesis, and immunity, selenium also stimulates hair follicles to encourage new growth. Scrimp on selenium and your body will churn out way too much selenoproteins, leading to hair follicle abnormalities, reduced growth, and hair loss, according to one 2010 study published in PLoS ONE.

The foods to eat: Brazil nuts, tuna, halibut, shrimp sardines, ham.

## Why Enfuse MedSpa for your hair restoration procedure?

From topical medications to in facility treatments, we provide a multi-therapy approach towards your hair restoration journey. Dr. Evans has studied globally and is double board certified. We view our approach from a medical perspective thus we have patients and not clients. Listening to you and your goals is our strength.

Our technician does these procedures everyday, all day. The results are based on the expertise of the technician. The doctor oversees the procedure therefore you are in safe hands.

Our staff is known for their ability to educate. We treat your money like our money. We do not waste your time or money so feel free to call or email us with any and all questions and to find out if you are a good candidate for hair restoration.

## **Hair Loss Groups**

www.americanhairloss.org

## **Next Steps**

Call 773-904-8310 to schedule your complimentary hair loss consultation or to find out more information. Get a Free Hair Check to assess where you are in the process and the future prediction of where you will be heading.

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