

# The TRUTH about Hair Loss Treatments

This research paper is intended to cover the broad picture of each type of hair loss treatment and solution.

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## Hair Loss Statistics

35 Million	Number of U.S. men experiencing hair loss
21 Million	Number of U.S. women experiencing hair loss
40%	Percent of men with noticeable hair loss by age 35
33%	Percent of women with noticeable hair loss by age 35
65%	Percent of men with noticeable hair loss by age 60
85%	Percent of women with noticeable hair loss by age 60

## Get the Facts

If you are one of the many men and women who suffer from hair loss of any kind, then you know how many treatments there are out there that claim to “cure” your condition.

Perhaps you’ve even tried some of them thinking that they would work, lulled by the claims of past users or “scientifically proved data,” only to be disappointed by the results. Before you spend your money on the next treatment, start your research on which hair loss solutions would be right for you and your lifestyle.

A simple Internet search for “hair loss solutions” reveals hundreds of thousands of results that could take hours to sift through. We have compiled the most popular treatments in one, easy-to-read document for those who want the straight facts with no sell - just answers to your questions about hair loss treatments, what they do, and the advantages of disadvantage of each treatment.

This paper is intended to cover the broad picture of treatments and solutions. Remember to discuss all these options with your hair professional.



## Is Hair Loss a Normal Condition?

Normal hair loss is considered to be 100 hairs per day, based on the average scalp containing 100,000 hair follicles. Male pattern baldness and female pattern baldness are the common conditions of excessive hair loss.



## Products Containing Minoxidil

Classified as a “Potassium Channel Opener,” Minoxidil is an oral medication originally prescribed to lower blood pressure.

Minoxidil was originally an oral medication prescribed by doctors for patients with high blood pressure. After a curious side effect was noted (hair growth on the scalp), the treatment took on a topical form and is now commonly prescribed by doctors everywhere specifically for male-pattern baldness and female thinning. There are many manufacturers of Minoxidil and all are available over the counter.

The specific chemical reaction that stimulates hair growth is not exactly known in Minoxidil.

However, it is classified as a Potassium Channel Opener, which means that it is in a class of drugs that are known to open potassium channels by hyper-polarization of the cell membranes. This stimulation increases blood flow to the area, which can be linked to increased hair growth. Minoxidil is best for men who have central hair loss only. It can also be used by women who have thinning (not balding) hair.

Minoxidil can be purchased over the counter, and is used to apply topically to the scalp at least twice a day. With

a regular regimen, some people have seen an increase in hair growth at around six months with the *continued* use of Minoxidil. The maximum results are obtained when applied at least four hours before hair is wet again.

Minoxidil is available in two strengths – a 2% formula for women, and 5% formula for men. It can be used in foam or liquid form.

Products containing Minoxidil are available without prescriptions



Of all the products containing Minoxidil, Rogaine® is probably the most well-known and was the first topical brand FDA-approved to regrow hair. How well it works depends on how long the hair has been gone from the sparse or bare areas of the

scalp. Results vary for individuals; in clinical studies, it takes four to six months to determine if Rogaine (or any product containing Minoxidil) will help an individual grow hair. One effective way of determining effectiveness is take good-quality photos of your scalp on a regular basis, comparing the photos over a

period of several months. Products containing Minoxidil have no known side effects, but some people experience dryness, flakiness and itchiness of the scalp. Because this is a twice a day treatment, the inconvenience may be a factor.



# Finasteride

Finasteride was initially approved by the FDA in 1992 under the brand name Proscar, a treatment for benign prostatic hyperplasia. In 1997, the FDA approved Finasteride to treat male pattern baldness under the brand name Propecia.

Finasteride is a product designed for men only, and is another commonly used hair loss solution that is taken orally as prescribed by a physician. Finasteride intake is usually on a regulated basis, and depending on how severe the hair loss is, can be taken for a very long period of time.

The benefits of Finasteride are generally only seen from long-term use, so this is definitely not a quick fix. Most men start to see results after an average of three months. It was developed for men who have hair loss on the top and front areas of their heads. Results have not been supported for receding hairlines.

Finasteride works to prevent the formation of testosterone to Dihydrotestosterone (DHT), which is a key cause of Male Pattern Baldness (MPB). Lowered amounts of DHT stops hair follicles from shrinking, causing less hair loss. This allows hair to continue to grow in naturally.

Finasteride is consumed orally as prescribed by a physician. It is usually taken once daily with or

without food. It can take up to three months to start to see a difference in hair growth, so extended use is usually recommended. If you stop taking Finasteride, results are lost within a twelve-month period. Finasteride is available in 1 mg dosages, though 5 mg is available and most men will cut the pill to the recommended dosage. Please note that *crushed or broken tablets can be hazardous to women who are pregnant or who may become pregnant.*

With continued use, new hair growth and less hair loss could be achieved. The best reported results are seen in hair growth on the crown area of the head. This is a once daily tablet that can be taken on a regular schedule, which many people prefer. Clinical trials have proven the effectiveness of this drug. Additionally, it is available via many different brands.

After stopping Finasteride, the benefits stop immediately too. In fact, you'll lose the results that were gained in about 12 months.

Side effects include decreased sexual desire and decreased amounts of semen released during sex. Although harmless for the most part, these effects may worsen or persist over an extended period of time, in which case a doctor should be contacted. Additional side effects include lump in the breast, breast



**Tell your doctor as soon as possible if you do not feel well while you are taking Propecia.**

tenderness/pain, pain in the testicles or the inability to urinate. Seek immediate medical attention if any of these additional side effects occur.



## Low Level Laser Therapy

Low level laser therapy (LLLT) was brought to the United States from Europe. Endre Mester, a scientist from Budapest, Hungary experimented with the effects of low level laser therapy on skin cancer in mice. He found that mice who were exposed to the therapy grew back their shaved hair much quicker than the mice who were not exposed. As the years went on, LLLT was increasingly used in medical specialties, especially dermatology. However, the effects of LLLT on hair loss didn't go unnoticed by the hair loss industry and is now commonly used at many facilities to treat men and women with thinning hair. Low level laser therapy is a compressed light wavelength in the red spectrum of electromagnetic radiation. The laser stimulates blood flow to the scalp via light energy, stimulating cell repair and production around

the follicles. This in turn could create thicker, healthier and shinier hair. Since the laser is considered "cold" laser therapy, there is no heat or burning sensation. LLLT is recommended for men and women who are experiencing thinning hair, or who have just received hair transplants. It is a safe, non-invasive method that is generally applied at a certified office. The amount of LLLT therapy received will vary depending on the severity of the hair thinning and upon the recommendation of the consultant. Generally, therapy is once a week. Patients will sit under a laser "hood" that will emit the light.

A handheld, FDA approved Laser Comb is available for home use. This is especially useful for people who cannot always go to the office for treatments.

LLLT is non-invasive and painless. Some patients



experience a tingling scalp during treatment, but nothing that is hot or painful. You do not need to take any pills or supplements while undergoing LLLT.

The biggest disadvantage is the time it takes to undergo treatment. Once weekly or twice monthly treatments can interrupt normal schedules and patients need to accommodate accordingly.

Results can vary from patient to patient and a scheduled check-up is required to assess the results and see if continued use is necessary. LLLT is generally used by men and women with thinning hair, rather than complete hair loss in one area.

## Hair Transplant Surgery

Hair transplant surgery can enhance your appearance and your self-confidence, but the results won't necessarily match your ideal. Before you decide to have surgery, think carefully about your expectations and discuss them with your surgeon. It's important to understand that all hair

replacement techniques use your existing hair. The goal of surgery is to find the most efficient uses for existing hair.

Hair replacement candidates must have healthy hair growth at the back and sides of the head to serve as donor areas. Donor areas are the

places on the head from which grafts and flaps are taken. Other factors, such as hair color, texture and waviness or curliness may also affect the cosmetic result. There are a number of techniques used in hair replacement surgery. Sometimes, two or more techniques are used to achieve the best results.





### Before and after receiving hair transplant surgery

Hair transplant surgery moves individual hair follicles from the back of the scalp (the donor site) and implants the follicles to areas of scalp lacking hair.



### Transplant surgery is usually performed in a physician's office- based facility.

Transplant surgery is usually performed using a local anesthesia, along with sedation to make you relaxed and comfortable. You'll have no scalp pain, but may be aware of tugging sensation or pressure.

## Hair Transplant Surgery (Con't.)

Hair Transplant surgery can take on many forms depending on the severity and type of hair loss. Solutions can range from total implants to partial implants in only certain, small parts of the scalp. Most treatment centers also use a gradual restoration technique. This is when the implants are added to the scalp over an extended period of time so that people do not notice you are getting treatments done. It is generally used by men with MPB (male pattern baldness).

Hair transplant surgery is a procedure that moves individual hair follicles from the back of the scalp (the donor site) and implanted to the areas on the scalp that is lacking hair. Technicians identify hair grafts that are resistant to balding and transfer them surgically to the scalp. Advanced transplant techniques involve transferring 1 - 4 hair follicle units, keeping their natural grouping together. Skilled technicians will mimic the natural growth pattern of your hairline.

Follicular Unit Extraction is when individual follicle groups are removed under local anesthesia. Each follicle and/or follicle grouping is transplanted in the balding areas individually. Scars are minimized and the natural growth of the hairline can be better mimicked for more natural looking hair.

There is some bleeding and tissue fluid after surgeries and proper care must be taken to prevent infection. Patients need to avoid the sun. Washing the hair and scalp must also wait until two days after surgery, unless directed by the surgeon with special care instructions. It is

important to note that the transplanted hair will experience "shock loss" and fall out after ten days. However, one to two months of proper care will begin to show new hair growth in the transplanted areas. The area should continue to thicken over the next few months.

The advantage of undergoing a hair transplant surgery is the use of your own natural hair. The growth of new hair will be natural as well. As hair continues to grow, normal patterns of growth will exert itself and you will eventually have a head of your own hair.

This is an outpatient surgery and will not require recovery time in a hospital. However it is still a surgery that is performed under local anesthesia and should be taken seriously. Recovery can take some time and noticeable results won't be seen until well after the surgery has been completed. Results are not immediate and can take up to one year for full hair restoration.

Additionally, it is extremely important for the surgeon to select, and then subsequently graft, the right kind of hair for the implants. If wrong hair follicles are chosen, then the hair will not take to the scalp.

Remember, there are limits to what can be accomplished. An individual with very little hair might not be advised to undergo hair replacement surgery.

## Hair Replication Method

The hair replication method is a non-surgical, non-invasive option preferred by many men and women. It's the invisible, transparent application of the hair to the scalp in such a way that it can be washed, dried and style as one's own hair. It's the best choice of men and women with pattern baldness and alopecia, and is commonly used by chemotherapy patients or those who have been burned or scarred in such a way that hair regrowth is not possible.

**The hair replication method is  
a good alternative to hair  
transplant surgery.**

With hair replication, a membrane is created that replicates the scalp of the patient's head. It will match in texture and color so that a true-to-scalp look is achieved. A trained technician will exfoliate the scalp where the membrane will be overlaid, removing any dead skin cells and making the area as clean as possible.

A specially formulated, FDA-approved skin adherent is used to bond the membrane to the scalp and will allow the skin cells to also bond to the membrane via the formula. At this point, the technician will use hair that has been matched to your hair's color, texture and curl and insert the hair directly into the membrane, following your hair's natural growth pattern. What results is natural looking hair without the surgery, pills and other medical regimens.

Unlike surgical techniques, no "donor" hair is required from the patient, there is no discomfort or pain, and there is no local anesthesia used in the process. There is no scarring or long recovery periods and hair will not fall out from "shock loss". Hair can be washed, dried and styled normally which is a great advantage to men and women who do not want to change their lifestyles for their hair. The patient has total control over the

density of hair in the area. The hair replication method is 100 percent reversible as well, which many other hair replacement options do not have.

The non-surgical hair replication method does not regrow the lost hair. Regular appointments to the hair replacement studio is necessary for maintenance of the membrane and "replicated" hair as well as continued upkeep of your naturally growing hair to match the areas.

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