



HOW THE NEW ERA OF HAIR RESTORATION TECHNOLOGY BENEFITS PATIENTS & PRACTITIONERS



Medical aesthetics practitioners appreciate how their work positively impacts patients' self-esteem and sense of well-being. At the same time, individuals gain greater confidence from knowing their appearance conveys vitality and polish. While men have been slower to embrace aesthetic interventions, they are a rapidly growing market for these services.

For 60 percent of men, hair represents their biggest aesthetic concern, according to a survey by the American Academy of Facial Plastic and Reconstructive Surgery.¹ Baldness, patchy or thinning hair, and a receding hairline are frequently cited as causes for emotional distress and problems.

From 2012 to 2017, the number of hair transplant procedures performed rose more than 538 percent, according to AAFPRS.² Patients are motivated by advances in minimally invasive treatments that have made natural-looking hair restoration possible.

Given high patient satisfaction, providers welcome the opportunity to deliver these treatments, and the ROI profile for gold-standard treatments makes them a smart business move as well. In this report, we offer background on hair restoration methods, the important considerations in deciding to offer this service in your practice, and the latest benefits now available to patients.

¹ "New AAFPRS Survey Points to Growing 'Man'tenance Trend- AAFPRS." *Facial Plastic and Reconstructive Surgery* | Alexandria, VA, American Academy of Facial Plastic and Reconstructive Surgery, 14 June 2017, www.aafprs.org/media/press-release/20170622.html.

² "AAFPRS Annual Survey Reveals Trends in Facial Plastic Surgery." *Plastic Surgery Practice*, 29 Jan. 2018, www.plasticsurgerypractice.com/2018/01/aafprs-annual-survey-reveals-trends-facial-plastic-surgery/.

UNDERSTANDING HAIR LOSS



MEN: MALE PATTERN BALDNESS AFFECTS MORE THAN HALF

According to the American Hair Loss Association, male pattern baldness, formally called **androgenetic alopecia**, causes more than 95 percent of hair loss in men, and two-thirds of U.S. men have appreciable hair loss by the age of 35.³ Fifty percent of men have significant hair thinning by age 50.⁴

Most hair loss in men is related to genetics with illness, side effects from medication, and other factors accounting for the remainder. In male pattern baldness, hair follicles have a genetic sensitivity to the hormone **dihydrotestosterone (DHT)**, which promotes the development of male characteristics.⁵ This sensitivity causes the follicles to miniaturize and have a shortened

lifespan. Eventually they stop producing hair and may cause the man to appear years older.

A receding hairline and thinning hair on the crown of the head are typically the first signs of male pattern baldness. These follicles, along with hair on the temples and mid-anterior scalp, are most sensitive to DHT. As the condition progresses, baldness spreads so that only a u-shaped pattern of hair remains on the top of the scalp. In advanced cases, this hair too can be lost.⁶

³ "Men's Hair Loss," Reviewed by Paul J McAndrews MD, American Hair Loss Association, https://www.americanhairloss.org/men_hair_loss/introduction.html.

⁴ Ibid.

⁵ "You and Your Hormones," Society for Endocrinology, <http://www.yourhormones.info/hormones/dihydrotestosterone.aspx>

⁶ "Men's Hair Loss," American Hair Loss Association

50%

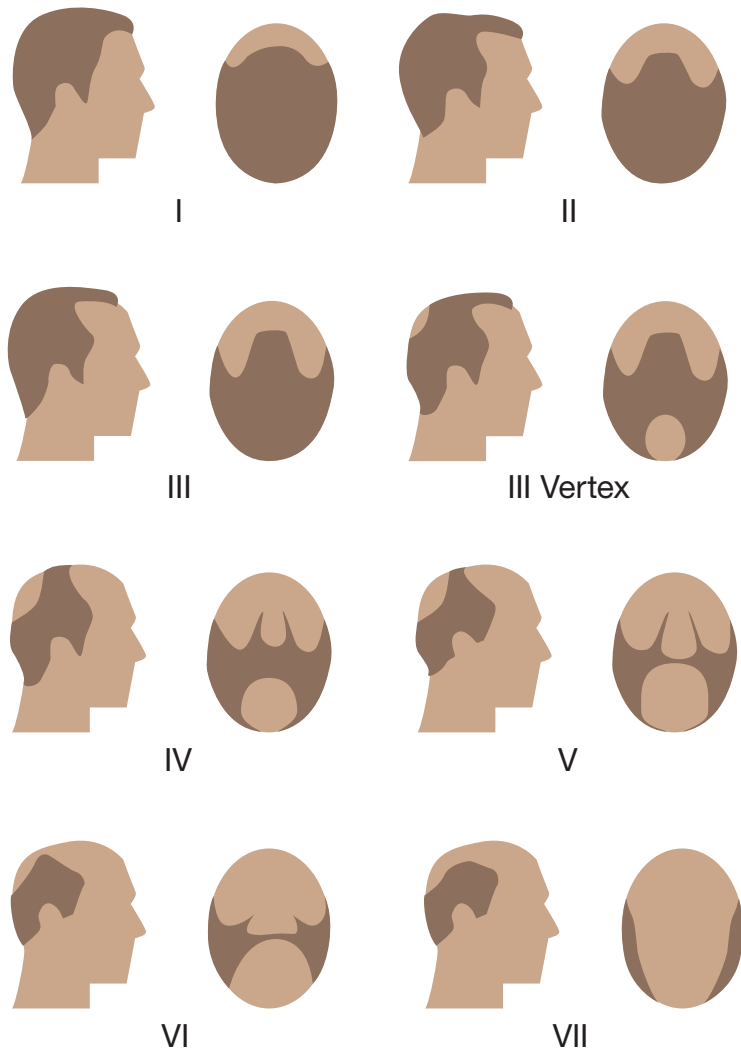
OF MEN HAVE SIGNIFICANT HAIR THINNING BY AGE 50

Male pattern baldness is classified on the **Norwood-Hamilton scale**, sometimes just called the Norwood scale, which measures the severity and pattern of hair loss across seven stages. This system was developed by James Hamilton in the 1950s and updated by O'Tar Norwood in the 1970s.⁷

Male baldness can have serious mental health impacts, such as loss of self-esteem, depression, and anxiety, because it signals old age and declining health.⁸ Remember the story of Samson in the Bible? His hair was the source of his strength. The psychological effects can be even more pronounced for those who suffer hair loss at a younger age than their peers.



NORWOOD-HAMILTON SCALE



The illustration shown above was designed by Venus Concept and based on the Norwood-Hamilton scale used to classify the stages of male pattern baldness

⁷ Gupta, Mrinal and Venkataram Mysore. "Classifications of Patterned Hair Loss: A Review," *Journal of cutaneous and aesthetic surgery*, vol. 9,1 (2016): 3-12.

⁸ Orenstein, Beth W., "Psychological Effects of Hair Loss," Medically Reviewed by Lindsey Marcellin MD, Everyday Health, <https://www.everydayhealth.com/skin-and-beauty/psychological-effects-of-hair-loss.aspx>.



WOMEN MAKE UP

40%

OF AMERICAN
HAIR LOSS
SUFFERERS

WOMEN: SUFFERING IS UNDER-RECOGNIZED

While hair loss is often mistakenly believed to afflict only men, women make up 40 percent of American hair loss sufferers⁹, and they account for 38.2 percent of non-surgical hair restoration procedures.¹⁰

With conditions such as chronic telogen effluvium, anagen effluvium, and traction alopecia, the causes of hair loss for women are more varied than for men. Oral contraceptives may trigger hair loss in some women. Other causes such as pregnancy, overly tight hair styles, and chemotherapy are temporary and the effects are potentially reversible. About one-third of women experience hair loss some time in their lives.

As with men, pattern baldness is the most common cause of hair loss in women and is most likely to happen after menopause when production of female hormones decrease and male hormones increase. DHT is again

the culprit. For postmenopausal women, thinning hair or bald spots occur in about two-thirds of individuals.¹¹

The pattern of hair loss for women differs than for men. Women rarely experience receding hairlines and seldom become completely bald. They tend to lose hair from all areas of the scalp starting with thinning around the parting. This diffuse hair loss can progress until the scalp is mostly visible through a thin layer of hair.¹²

Female hair loss is measured on two very similar scales, the Ludwig and the Savin. These systems classify the density of hair on the crown into three primary stages.¹³

As with men, hair loss can greatly damage a woman's self-confidence and body image.



Hair loss in a woman is so emotionally devastating that it can trigger a wide range of social and emotional issues that can negatively impact healthy daily living and overall quality of life. I have heard of women that retreat from social situations, have diminished work performance, and even alter their healthy living—avoiding exercise, overeating, not treating other medical illnesses—due to their hair loss.

Dr. Shani Francis, Director of the Hair Disorders Center of Excellence at Northshore University HealthSystem in Illinois, tells *Medical News Today*.¹⁴



⁹ "Men's Hair Loss," American Hair Loss Association.
¹⁰ "International Society of Hair Restoration Surgery: 2017 Practice Census Results," Prepared by Relevant Research Inc. Chicago, Ill., International Society of Hair Restoration Surgery, https://ishrs.org/wp-content/uploads/2017/12/report_2017_ishrs_practice_census-08-21-17.pdf.
¹¹ "Treating female pattern hair loss," *Harvard Women's Health Watch*, Harvard Medical School. 14 Nov 2018, <https://www.health.harvard.edu/staying-healthy/treating-female-pattern-hair-loss>.
¹² "Men's Hair Loss," American Hair Loss Association.
¹³ Gupta, Mrinal and Venkataram Mysore. "Classifications of Patterned Hair Loss: A Review"
¹⁴ Whiteman, Honor, "Hair loss: How Does it Affect Women?" *Medical News Today*. 16 April 2015, <https://www.medicalnewstoday.com/articles/292492.php>.

THE EVOLUTION OF TREATMENTS FOR PATTERN HAIR LOSS



Men and women suffering from pattern baldness have multiple treatment options. We will discuss some of the most commonly used treatments in brief.

Two drugs have been approved:

Minoxidil is a vasodilator medication sold for 30 years under various brand names as an over-the-counter topical hair growth stimulator. Studies have shown it to be effective, but not for everyone¹⁵—about half of users experience new hair growth. It usually takes at least 12 weeks of use for new hair to grow and the effects will stop if use is discontinued. A literature review noted that the topical has largely been effective for men aged 18 to 41 who have experienced hair loss for fewer than five years. More studies are needed to assess its effectiveness for older men and women.¹⁶

Finasteride, used in higher dosages to treat an enlarged prostate, is an oral medication that disrupts the conversion of testosterone to DHT. Studies have shown improved hair growth in two-thirds of men who took it for two years, although the drug can have side effects of reduced sex drive and erectile dysfunction. In addition, patients must continue taking the drug to maintain benefits.¹⁷

¹⁵ Adil, Areej et al., "The effectiveness of treatments for androgenetic alopecia: A systematic review and meta-analysis," *Journal of the American Academy of Dermatology*, Volume 77, Issue 1, 136 - 141.e5., July 2017.

¹⁶ Alesio, Giovanni. "Studies: How effective is topical minoxidil for hair loss?" Profolus, 18 Jan. 2018, <https://www.profolus.com/topics/studies-effective-topical-minoxidil-hair-loss/>

¹⁷ McClellan, Karen J., Markham, Anthony. "Finasteride: A Review of its Use in Male Pattern Hair Loss," *Drugs* (1999) 57: 111. <https://doi.org/10.2165/00003495-199957010-00014>



LOW-LEVEL LASER/LIGHT THERAPY

Several low-level laser/light devices have been approved for home use. Depending on device power and configuration, consumers use them for intervals of 90 seconds to 25 minutes daily or multiple times a week. In randomized, double-blind trials, low-level laser resulted in a statistically significant increase in hair density.¹⁸ The therapy must be continued indefinitely.



LOW-LEVEL LASER RESULTED
IN A STATISTICALLY SIGNIFICANT
INCREASE IN HAIR DENSITY.¹⁸

¹⁸ Jimenez, Joaquin J et al. "Efficacy and safety of a low-level laser device in the treatment of male and female pattern hair loss: a multicenter, randomized, sham device-controlled, double-blind study" *American journal of clinical dermatology*, vol. 15,2 (2014): 115-27.

PATIENTS DEMAND LONGER-LASTING SOLUTIONS



While these treatments offer benefits, they are most helpful in the early stages of hair loss. That leaves many individuals, including those with advanced hair loss, looking for a better solution, specifically one that looks natural and is reliable, long-lasting, and low-maintenance. Fortunately, there have been major advances in hair restoration using a person's own hair follicles, and many male celebrities including soccer star Wayne Rooney, chef Gordon Ramsay, and actors Jude Law, John Travolta, and

Matthew McConaughey are reported to be sporting the results.¹⁹

The forerunners of these treatments was a procedure known as a punched hair transplant, which was developed in the 1950s and became popular in the 1970s and 1980s. It involved transplantation of so-called hair plugs, or round pieces of tissue that contained about 20 hairs taken from sites on the patient's own head where the hair follicles are not genetically disposed to pattern baldness. The results were not natural in appearance because the hair was grouped together in bunches and oddly spaced. Donor sites on the scalp suffered because a large amount of tissue was removed, resulting in circular scarring.²⁰

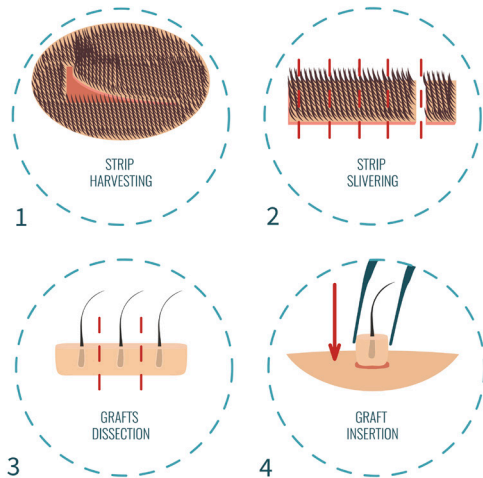
1950s

PUNCHED HAIR TRANSPLANT
WAS DEVELOPED

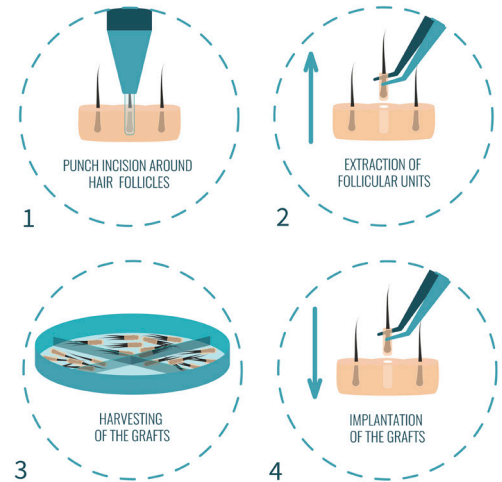
¹⁹ Marchant, Charlotte, "Top 10 Celebrity Hair Transplants," Babble Top, 1 April 2018, <https://babbletop.com/top-10-celebrity-hair-transplants/>

²⁰ "What are hair plugs and who should get them?," The Telegraph, 9 July 2018. <https://www.telegraph.co.uk/health-fitness/body/hair-plugs-should-get/>

FUT PROCEDURE



FUE PROCEDURE



VS

FOLLICULAR UNIT TRANSPLANTATION

In the 1990s, **Follicular Unit Transplantation (FUT)** became the standard. In this procedure, a donor site strip is excised from the back of the head. The grafts are then dissected into units, which consist of one to four hair follicles.

The doctor then inserts these with a small needle into the recipient area. The result is natural-looking, and the transplanted areas blend seamlessly with native hair.

However, FUT leaves a noticeable linear scar that deters many prospective patients, especially those who want to wear their hair short. Because it is an invasive surgery, the technique requires stitches.²¹



FOLLICULAR UNIT EXTRACTION

The newest advance is **Follicular Unit Extraction (FUE)**, a minimally invasive procedure that many practitioners now consider the gold standard.

Rather than removing a strip from the patient's scalp as with FUT, FUE extracts individual follicular units directly from the scalp using very small circular punches of less than one millimeter. Because hair follicles are not removed in a strip, any loss of hair density in the donor area is usually unnoticeable. Unlike with the scalpel of FUT, the resulting hole is small, does not require a suture, and the scar is virtually undetectable.²²

The painstaking work involved in FUE means that it typically takes more time than FUT, but ergonomic enhancements and automation have brought improvements. FUE devices such as **NeoGraft®** remove the hair grafts with a single mechanical action by rotating the punch, which frees the hair graft from the surrounding tissue. The graft is then gently suctioned into the collection canister. These are then inserted using an implantation handpiece.

Superior to FUT, FUE entails little to no discomfort for the patient as well as rapid recovery and healing time. Both techniques are currently in use, but FUE is growing more quickly.²³

²¹ Dua, Aman and Kapil Dua. "Follicular unit extraction hair transplant" *Journal of cutaneous and aesthetic surgery*, vol. 3,2 (2010): 76-81.

²² Ibid.

²³ Ibid.

IMPORTANT CONSIDERATIONS FOR AESTHETIC PRACTITIONERS



The case is clear that hair restoration improves quality of life, and skyrocketing demand is well documented. But as a provider, you also are responsible for making smart business decisions. So, if you move forward with FUE for hair restoration, there are some important considerations to take into account.

PATIENT SATISFACTION AND TRUST

Review sites such as RealSelf give you a good indication of how happy patients are with their results from different techniques and devices. For example, **NeoGraft®** has a “Worth It” rating of 100 percent on RealSelf.com.²⁴

PATIENT SUITABILITY

Some systems only work with dark, straight hair. Check the indications before committing to a device.

EASE OF USE

Review device ergonomics, technology, footprint, etc. Does the device offer features that will increase precision and reduce operator fatigue?

MARKETING SUPPORT FROM THE MANUFACTURER

Find out what the company does to support your practice. Some manufacturers help with lead generation, marketing collateral, and innovative tools such as a patient results visualizer.

TRAINING

The best scenario is when a manufacturer offers in-person, live training that is suitable for a provider with minimal hair restoration experience.

²⁴ NeoGraft reviews on March 27, 2019, RealSelf. <https://www.realself.com/neograft>

CLINICAL SUPPORT

Does the company offer certified technicians and are they annually recertified? Having this assistance can dramatically reduce hands-on time and fatigue for the physician, as well as improve results. If technicians are offered, are they employed by the manufacturer or independent? Do you know who is training them and are their loyalties aligned with your success? Are they easy to schedule and do they offer local availability?

BUSINESS MODEL

Different models are used in the industry, and some companies require hefty annual maintenance agreements. Having the option of using a subscription-based business model is attractive because it entails lower upfront cost, practice support, and consumer marketing support. Moreover, the company has an ongoing incentive to help you succeed.



Last but not least, financial considerations are paramount. Achieving strong return on investment is important for your financial health. Bear in mind the following financial factors:

DEMAND

Remember that demand is growing rapidly for hair restoration, and for aesthetics practitioners offering other services, this procedure gives the highly sought-after male patient a strong entrée to your practice. In addition, the female market for hair restoration has strong scope for growth.

EXPENSES

Be sure to factor in not only the cost of the device, but also consumables and clinical support. If there are travel costs for support staff, can cases be scheduled on consecutive days?

POTENTIAL REVENUE

Ask the manufacturer about the average number of grafts in a procedure and what providers charge per graft. From this, calculate your revenue after expenses. For example, the average **NeoGraft®** procedure involves 2,000 grafts at a patient price of \$5 to \$8 per graft. After expenses, providers are achieving revenue of \$11,600 to \$5,600 per case. Some providers are profitable averaging only one procedure per month.



CONCLUSION

Of course, every practice and geographic area are unique, and those numbers will be different for other devices and business models. But clearly, advances in minimally invasive hair restoration technology represent a compelling opportunity.

If you are ready to look further into this growing market, feel free to ask questions or request information on the topics we discussed by getting in touch with us today.



**TO LEARN MORE,
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