

The Aesthetics of Hair Restoration

The hairline and frontal hair volume are frequently overlooked aspects of attractive facial proportion and overall facial aesthetics. The author contends that patient benefit from hair restoration surgery is significant, and these procedures should be routinely considered as part of a complete facial rejuvenation. (*Aesthetic Surg J* 2004;24:561-564.)

Restoring facial volume and shape is a current and well accepted principle of aesthetic surgery. The tenets of facial balance and proportion date back to da Vinci and other legendary observers of human form.^{1,2} An attractive and proportionate face has been defined by the canon of *equal facial thirds*.^{2,3} This principle states that in most attractive faces, forehead height should be one third of the total height of the face and approximately equal in height to the mid and lower face. However, Farcas⁴ shows that in most cultures a face is perceived to be most attractive when the upper forehead border is slightly lower than the “rule of thirds” predicts. In spite of these well established aesthetic principles, the significance of frontal hair volume and the value of a natural and well positioned hairline in framing the face and defining the upper forehead border is frequently overlooked.

A high forehead with a receded or absent hairline is a well recognized sign of aging in both men and women.⁵ Marten⁶ has pointed out that an enlarged forehead is not only a sign of aging but also creates facial disproportion. Various surgical techniques have been devised to preserve the hairline during cosmetic procedures.^{7,8} Hairline lowering foreheadplasty was designed to directly address the aging stigma of an elevated forehead. However, this type of forehead lowering requires the patient to have some preexisting frontal hair. Volumetric and artistic hair transplantation is a powerful method of reestablishing facial balance and proportionate forehead size, even in the absence of preexisting frontal hair. The aesthetic impact of restoring frontal scalp hair volume and creating a hairline is as significant as other facial rejuvenative pro-

cedures. A unique perspective on this surgical procedure might be to consider hair transplantation a method of forehead rejuvenation and not merely a method of replacing lost scalp hair (Figures 1-4).

State-of-the-art techniques in hair transplantation result in hair restoration that is almost always undetectable as surgery. The basis for a natural appearance is the principle of follicular unit transplantation.^{9,10} A follicular unit is the natural grouping of individual hairs in vivo. While some hairs exist as single follicular units in the temporal and occipital donor area, most hairs exist in bundles of 2 to 4 hairs per follicular unit. Removal and preparation of donor follicular units and their implantation into areas of alopecia recreates the most natural appearance possible. By using soft donor hair from the temporal fringe, proper angulation of graft implantation, and a surprisingly irregular distribution of single and double follicular unit grafts, it is possible to establish an extremely natural anterior hairline (Figure 5).

The details of modern follicular unit transplantation are beyond the scope of this article but have been well summarized.¹¹⁻¹⁴

After transplantation, grafts enter a resting phase (telogen) for the next 3 months. When the growth phase (anogen) begins, a 5-month wait is necessary to assess the results of the transplant procedure. Hair transplantation is an exceedingly reliable and safe operation. Growth rates are approximately 85% to 90% based on hair counts at 12 months. In my 13 years of performing hair transplants, there has been an incidence of 3% donor wound complications. These include widening of the scar, scar pain, ingrown hairs, and scar separation. There have been no scalp infections. There has been an incidence of 5% to 8% inclusion cysts in the recipient area.



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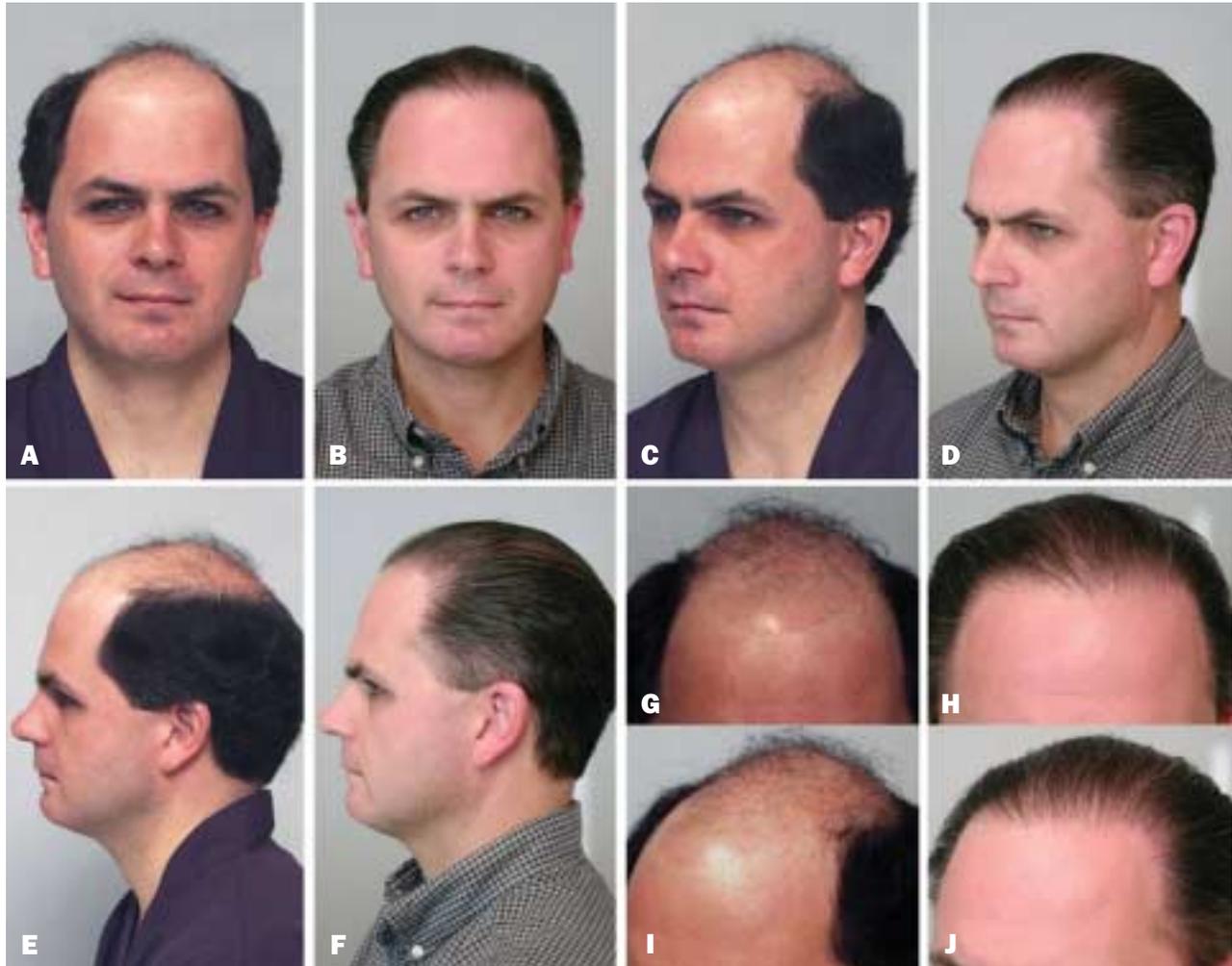


Figure 1. **A, C, E, G, I,** Preoperative views of a 43-year-old man. **B, D, F, H, J,** Postoperative results after 3000 grafts to frontal and crown areas performed in 2 hair transplant sessions.



Figure 2. **A, C,** Preoperative views of a 53-year-old man. **B, D,** Postoperative views after 2400 grafts to frontal and crown areas performed in 2 hair transplant sessions.



Figure 3. A, C, Preoperative views of a 54-year-old woman. B, D, Postoperative results after 2200 grafts to frontal area performed in 3 hair transplant sessions.



Figure 4. A, C, E, Preoperative views of a 53-year-old woman who has retained her hairline. B, D, F, Postoperative results following 1200 grafts to the frontal area performed in a single hair transplant session. This patient illustrates the importance of restoring hair volume.

Most men will experience some degree of hairline thinning and elevation as they age. In some circles, this feature can be interpreted as a symbol of maturity and wisdom. For most men, however, hair loss is at best a suboptimal situation. For women, an enlarged forehead or thinning of the frontal hair can trigger extreme dissatisfaction with their appearance. For many men and most women, hair loss suggests a loss of health, vigor, and vitality. For men and women, restoration of scalp hair using contemporary techniques is a strong boost to self esteem.

Traditionally, the tedious process of hair restoration

surgery has not been of major interest to plastic surgeons, and its performance has been relegated to other specialists. Consequently, aesthetic surgeons often overlook the importance of the anterior hairline and the volume of frontal scalp hair as significant components to the aesthetic and proportionate relationships of the face. As techniques in facial rejuvenation advance, it is incumbent on surgeons to be sensitive to and aware of the importance of the hairline. Hair restoration is a valuable addition to plastic surgery practice, but at the very least, surgeons should encourage patients to seek hair loss treatment.



Figure 5. It is important that the design of an aesthetic hairline frames the face and appears natural. An irregular distribution of selected soft (temporal) donor hair with anatomically recreated angles of exit from the scalp is required. Note the direction of the temporal hair grafts compared to those at the anterior hairline.

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