

## **Hair Restoration for Women**

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### **Treating Female Pattern Baldness and Repairing Distortion and Scarring from Prior Cosmetic Surgery**

In women, the role of **hair transplantation** is less common than men and often the losing of hair is very distressing. While over 95% of all hair transplant procedures are performed on men, women are candidates and undergo hair transplant procedures for the treatment of several conditions such as inherited female pattern balding, low thyroid or iron levels, hormonal imbalances such as elevated testosterone, binge dieting, and pregnancy. Another cause of hair loss in women is the distortion of hair growth and scarring as a result of prior facial plastic surgery. Most of these conditions however are treatable, giving women new options with different techniques than used in men that when performed correctly, consistently achieve excellent results and minimize complications.

**Female pattern baldness** occurs along several different patterns, the most common consisting of diffuse thinning along the top and upper sides and back of the head, often sparing the frontal hairline. This classic form of FPB can be divided into stages according to the Ludwig classification scheme ranging from mild hair loss to extensive hair loss. In patients with stage 1 (mild hair loss) and most cases of stage 2 classic FPB, as well as those with less common patterns, there is usually sufficient hair density in the donor region for effective transplantation at least by restoring density to the thinner areas. Women with stage 3 (extensive hair loss) are usually advised not to undergo the procedure.

The other, and most common, condition in women effectively treated is the alopecic scarring and hairline distortion associated with prior plastic surgery. The most common type is the loss of the sideburns caused by rhytidectomy incisions that extend superiorly from the upper aspect of the ear. The hairline distortion often produced by the incision can cause significant hair styling difficulties. Another type of distortion is the excessive elevation of the frontal hairline associated with brow-lift incisions in patients with pre-existing high foreheads. Alopecic scarring most commonly occurs along the frontal and temporal incisions of browlifts and the occipital incisions of rhytidectomy. The goal of hair transplantation in these cases is to restore hair growth in the scarred and thinned-out areas and to recreate the normal anatomy of the temporal tufts and the frontal and temporal hairline.

### **Treatment of Female Pattern Baldness**

When performing hair transplantation on women with FPB, the limited supply of donor hairs limits the amount of coverage that can be achieved. While most patients would like to have all thinning areas treated, the hairs should be transplanted into those areas where they will provide the maximum benefit for the patient. Most commonly, these beneficial

areas are the mid-top of the scalp posterior to and sometimes up to the frontal hairline and along where the hair is parted. It is crucial that the donor region is assessed prior to planning a procedure to make sure that enough hair is present to make the procedure worthwhile and effective. For the best results, the procedure should maximize the number of hairs transplanted while minimizing the trauma to the existing hairs, usually best accomplished by transplanting grafts containing 3 to 5 hairs, except along the hairline where smaller grafts of 1 or 2 hairs are placed to assure natural appearance.

In the typical case, 600 to 800 grafts (or about 2500 hairs) are transplanted, placed atraumatically into the incisions. Careful handling, along with keeping them moist, minimizes damages and ensures good growth. To minimize the loss of hairs due to shock and to accelerate the regrowth of the transplanted hairs, 1 week after the procedure, patients should restart the daily application of 2% minoxidil (usually they will have already used the minoxidil in the weeks leading up to the procedure to help stimulate additional hair growth, stopping its use 3 days prior to reduce the risk of significant bleeding). With this regimen, the hairs can be expected to start growing at 2.5 months, rather than the typical 4 months.



*Hair Transplant Procedure – Before and One Year After 1,750 Grafts*

### **Treatment of Hairline Distortion & Alopecic Scarring from Prior Cosmetic Surgery**

The management of scarring from prior facial cosmetic surgery usually includes the restoration of the sideburn and other areas of distortions and the repair of alopecic scarring. Aesthetic restoration of the sideburn begins with the recognition of its natural appearance in terms of location, direction of hair growth, and feathered look. Of particular importance are the superior to inferior and anterior to posterior direction of hair growth and the fineness of the hairs, especially along the anterior and inferior borders. Areas of scarring, typically located in areas surrounded by hair, should be transplanted with larger grafts so that in the case that there is less than expected 90% of hair growth in the scar tissue, there is still the potential for sufficient coverage.

The technique of choice in these cases is **follicular unit grafting (FUG)** providing the 3- and 4- hair grafts for filling in the areas of scarring and the 2- and 3- hair grafts for augmenting density along the upper temporal and posterior sideburn regions, and the finest 1-hair and occasionally 2-hair grafts for sideburn restoration and feathering along the leading edge of the restoration.



*Before and after one hair grafting procedure to repair scalp scar.*

### **Treatment for the Overly High Hairline**

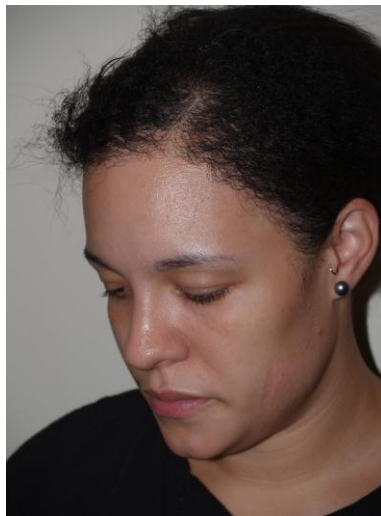
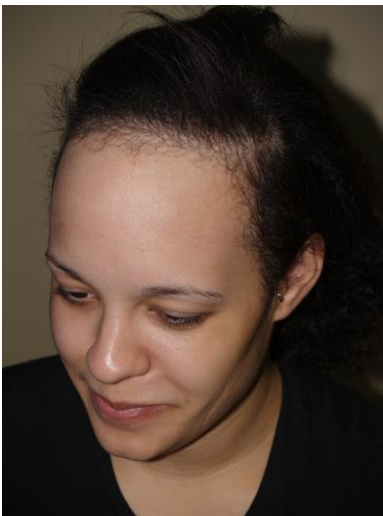
The hairline/advancement lowering procedure can lower the overly **high hairline** whether due to genetics, hair loss, or prior cosmetic surgery such as browlifts. Most commonly, it is performed on women, where the high forehead can be shortened. In addition, it is possible to actually change the shape of the hairline, making it more oval or rounded by filling in the upper temporal/side regions, creating a more feminine appearance.

There are two techniques that can be used to advance the hairline, the most common is with hair transplants while the other is a surgical procedure that involves shortening the forehead while surgically moving the hairline forward. The hair transplant technique has many advantages as a technique for hairline advancement and as many as 2400 or more hair grafts can be placed in a single procedure with natural appearing results. The donor hairs come from the back of the scalp, which continue to grow from a lifetime. To provide a natural appearance, the hairs are transplanted primarily one and two at a time, with the finest hairs up front, the natural way the hairline grows.

The other hairline advancement technique is a surgical procedure that involves shortening the forehead while surgically moving the hairline forward. An incision is made along the front of the hairline, and sometimes along with shortening the forehead, the eyebrows can be raised up, if desired, so that a browlift is performed. The result of this procedure is a fine line incision scar along the hairline which typically heals up to be barely if at all visible. This is definitely a bigger procedure than transplanting with hair grafts, but can be quite effective and produce rapid results.



*Before and after hairline advancement procedure of 1,900 grafts.*



*Before and after surgical hairline advancement and graft procedure.*

## **Results**

The role of hair transplantation in women is becoming more recognized as an option in the treatment of the variety of hair loss conditions. Women are increasingly learning that they can benefit, as do men, from the newer techniques in surgical hair restoration. While there are certain inherent limitations in the results of hair transplantation for the treatment of FPB, it is my experience that, for appropriate candidates, these patients are among the happiest. For many of these women, the results of a relatively small number of hairs transplanted strategically into areas of maximum benefit can restore confidence and avoid the need for the wearing of a hairpiece or system.