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# HAIR TRANSPLANTATION

## THE CONCEPT

Hair transplantation is successful because hair transplanted from one area to another area maintains its characteristics from its original site. Therefore, if hair from a particular location is genetically programmed to last a lifetime, such as the hair on the back and sides of the head, then this hair will last a lifetime in its new transplanted location. While the procedure is commonly performed on men with male pattern baldness, women with hairloss and others who have lost hair due to a variety of reasons may also benefit from this procedure.

## THE PROCEDURE

For relaxation and pain, an oral mild tranquilizer and analgesic is given prior to the start of the procedure. Hair on the back or sides of the head (donor area) is clipped to a short stubble in a zone approximately 1/2 inch wide and 4 to 8 inches long. Hair above the strips should completely cover the donor site immediately after the procedure.

The donor area and the area to be grafted (recipient area) are anesthetized by injecting a local anesthetic with a very small needle. This is the only uncomfortable part of the procedure and goes by quickly. After the anesthetic has taken full effect, a strip of hair-bearing scalp is removed with a scalpel. A similar technique is used to remove scars from older round graft transplants. The donor area is closed either with sutures or staples and hair above conveniently hides the site. Donor tissue is meticulously divided under magnification into micrografts containing 1 to 2 hairs and follicular units containing 2 to 4 hairs. Micrografts are placed into tiny punctures in the hairline zone. They create a soft transition from forehead skin to scalp hair and allow patients to wear their hair in virtually any style including combed straight back. Follicular units are placed into tiny slits behind the micrografts and provide denser coverage than micrografts alone. Because of the natural grouping of hairs in the follicular unit, they escape detection as obvious tufts of hair. Particular attention is paid to the natural direction of the surrounding hair when placing grafts. For patients with previous large round grafting, micrografts and follicular units are invaluable in softening the hairline and filling in hairless gaps. At times, older transplanted grafts are removed, divided, and retransplanted as micrografts and follicular units with extremely pleasing results.

At the end of the procedure, a turban-like bandage is sometimes applied and left in place overnight. On the patient's return visit the following day, the bandage is removed, the surgical sites cleaned, and an overall check of the grafts is performed. After one week, the sutures or staples are removed.

## WHAT TO EXPECT AFTER THE PROCEDURE

A crust or scab will form over each graft shortly after the procedure. Micrograft sites heal very quickly with the marks fading within days. Follicular unit sites also heal quickly with the marks fading in one to two weeks.

The hairs in the transplanted grafts are shed between the second and eighth week after the procedure. Sometimes many of these hairs fall out attached to the separating crust; occasionally they persist longer. Rarely, one or two of the transplanted follicles do not shed their hair at all, but continue to grow immediately after the procedure. With these exceptions, the grafts are usually bare for a period of eight to twelve weeks after the procedure, during which time the hairs are shed and the follicles recuperate to produce new hair. A new generation of hair is usually visible at the surface of the scalp by the twelfth week after transplanting,

but this may occur slightly earlier, or up to eight weeks later in a few patients. These hairs grow at the same rate as they did in their original locations (which is usually ½ inch per month).

When a large area is transplanted, swelling of the forehead frequently occurs. While this swelling is usually mild, and lasts only two to four days, it occasionally can be severe enough to cause a large amount of puffiness around the eyes (approximately one out of fifty patients have swelling bad enough to cause "black eyes"). Generally the swelling begins two to three days after the procedure and is most noticeable after the first session; with subsequent procedures, it usually occurs in a milder form or not at all. In view of this, if possible, it is advisable to schedule a vacation to coincide with the first session. Please be assured that the swelling is always temporary and has no harmful effect on the healing transplants.

Regardless of what many patients have been told, the scalp whether hairy or bald has an excellent blood supply. A certain amount of bleeding during the transplant procedure is expected and is simply controlled by applying pressure. The donor area is sutured closed to produce better scars and to minimize bleeding. The sutures are removed in approximately seven days.

Dr. Badame or the medical assistant will wash your hair the day after surgery when the bandages are removed. You may gently shampoo on the second day after transplanting. Even if you do not have a bandage, it is highly recommended for you to return the next morning to have your hair washed and all the grafts inspected.

Patients from out of town are required to stay in town overnight, after the transplant procedure, so that the bandage can be removed and the area properly cleansed the day following surgery. They should not drive themselves or fly home on the day of surgery because of the lingering effects of medications.

Ingrown hairs are occasionally a temporary problem, especially when follicular unit grafting is used and if the hair tends to be naturally curly. It is readily controlled, does not cause any permanent damage, and occurs in only a few patients.

A temporary decrease in scalp sensitivity is usually noted after the procedure because superficial nerves are cut when the donor grafts are taken and recipient sites are prepared. Most of the time this will correct itself entirely in three to eighteen months as the nerves regenerate. Rarely there may be a persisten slight degree of decreased sensitivity in one area or another.

## NUMBER OF PROCEDURES REQUIRED

Typically, two to four sessions are necessary to produce satisfactory and natural looking coverage in a given area. Because hair loss is a dynamic process over time, and every patient has his own objective regarding hair density, the actual number of transplant procedures varies. Some individuals may be satisfied with only one procedure while other will undergo more than four procedures. The limiting factor is the amount of donor hair available.

It is common for patients to have one to two early transplanting sessions, before hair loss has reached an advanced stage. The most notable benefits of these early sessions is that the remaining hair provides natural camouflage for the initial sessions, and the transplanted hair will persist once it has grown, thus providing additional coverage for later sessions.

It is best not to perform additional sessions in a given area without waiting 6 to 12 months. This allows time for the grafts to fully heal and begin growing. In general, the number of grafts that should be transplanted in one session and the frequency of transplant sessions depend on the characteristics of each individual case. This can be discussed with the patient on a case-by-case basis.

Occasionally, a patient may notice mild thinning involving the pre-existing hair of the recipient area within a few weeks after the transplant. This thinning, called telogen effluvium, is temporary and the hair will regrow at the same time when the transplanted hair begins to sprout.

## ALOPECIA REDUCTION

If one wants to transplant both the front and crown areas, Dr. Badame may suggest to decrease the size of the bald area with one or more alopecia reductions. In an alopecia reduction, a protion of bald scalp is removed and the normal laxity of the scalp is used to close the resulting gap. A narrow scar is usually the only sign of the procedure. After several weeks, the scalp will become loose again, and additional bald scalp can be removed. Once the series of alopecia reductions is complete, micrografts and follicular units are placed in and around the scar for camouflage.

Because alopecia reductions require a commitment for several procedures involving reduction and hair transplantation, they are not for everyone. Additionally, some patients have enough donor hair to cover the entire bald area without the need for alopecia reductions. Further, many patients are completely satisfied with less coverage because micrografts and follicular units alone look so natural and do not require additional procedures for camouflage.

## MEGASESSIONS

Megasessions involve transplanting an entire bald head in one or two sessions of 2000 to 3000 grafts. Dr. Badame does not perform megasessions for the following reasons: megasessions require a protracted procedure sometimes lasting 8 to 10 hours. This leaves the delicate grafts vulnerable to drying out and losing their viability. Also, a very large incision in the donor area coupled with the numerous incisions in the recipient area compromise blood supply which can affect not only the new grafts but also the existing hair. Further, the dense packing that occurs in megasessions can adversely affect the amount of blood supply to the grafts. Overall, the complication rate of megasessions is greater and the patient should seriously consider the possibility of lesser hair yield permanently against the temporary convenience of a quicker result.

## FINAL LOOK

In conclusion, with the new techniques of micrograft and follicular unit grafting using 1 to 3 hair grafts, the hairline no longer appears as abrupt and unnatural as was the case with traditional round plug grafts. Micrograft and follicular unit grafts create a very natural-looking hairline enabling patients to wear their hair in virtually any style. Since these grafts do not involve removing any hair from the recipient site, existing hair remains, thus enhancing the overall natural look. The pluggy look of old style hair transplantation is thankfully a thing of the past as micrograft and follicular unit grafts have revolutionized the art of natural hairlines.