



## Hair Restoration Answered Questions

*Dermatologic Surgery, Volume 22, 1996*

### Hair Restoration Answered Questions

Robert M. Bernstein, MD

Dr. Bernstein is the Medical Director of the New Hair Institute Medical Group of New York Jersey, P.C.

---

To the Editor:

Dr. Dzubow's comments in "Hair Restoration: Turbo Transplants and Fractured Follicles" (*Dermatol Surg* 1995;21:283), regarding Dr. William Rassman's recent article "Micrografting in Extensive Quantities" (*Dermatol Surg* 1995;21:306-11), state that "questions remain unanswered." I have been working closely with Dr. Rassman for some time and perform extensive micrografting myself. In addition, I have had the opportunity to see first-hand many of Dr. Rassman's long term results. I would like to suggest that many of these "unanswered questions" already have answers.

The first issue you mention is that "the emphasis has somehow shifted from the eventual outcome or product to the speed and magnitude of the process." The outcome is the emphasis, and the speed and the magnitude of the process impacts the outcome, but in a positive way. A critical element affecting the final outcome is the motivation of the patient to reach a point where the hair transplant is cosmetically useful. Multiple, partial procedures produce short term cosmetic problems, unnecessarily extend the duration of the surgical process, interfere with the patients daily life, and often leave the patient frustrated and unsatisfied. These patients can be so unhappy that they give up on the process entirely. The ability to perform the restoration in one or two procedures encourages a much greater proportion of patients to complete the process.

Large sessions solve other problems intrinsic to multiple small sessions. The first concerns the donor reservoir. Each time grafts are harvested from the donor area there is loss of potential donor hair due to destruction of hair adjacent to the wound edges as a result of the fibrosis associated with primary intention closures. In addition, the hair follicles adjacent to the healed suture line are often distorted and more difficult to harvest on subsequent procedures. Minimizing the number of times the donor area is accessed will obviously minimize the resulting loss and distortion due to the closure.

In the recipient area, the issues of fibrosis also favor fewer procedures. In a "virgin scalp," the blood supply travels unimpeded to the entire area. Each graft placed in the recipient site induces local fibrosis that interferes with normal blood flow and every punch, large slit, or ultra-pulsed laser site has the chance to transect or seal off viable blood vessels. In subsequent procedures the hair placed between existing grafts are implanted into scar (even though it may be microscopic) and receive the diminished flow associated with it. In dense packing, the recipient site is created with an instrument thinner, and one that produces less trauma, than a NoKor 18g needle. A blood vessel that might be pierced would immediately reseal analogous to the way a vessel heals after venipuncture. When the single hair graft is then placed into the site, the graft itself is soft and would cause no additional trauma to the vessel. If it were true that "the diminished blood supply fails to support uniform graft take and consequently hair growth" then asymmetry, gaps, or areas of variable density would result from the dense packing technique and this is not observed in spite of the fact that the dense packing is used predominantly in the frontal hairline, where any problem would be most obvious.

Your second issue, "megasesions cannot duplicate the density of the traditional approach," is really not an issue at all. The density of the traditional approach is NOT one that we should aspire to. The problem with larger grafts (and I include mini-grafts in this category) is that they don't parallel the way hair grows in nature. Due to graft contraction they have a higher than normal density with greater than normal spacing in between. In nature, hairs in the frontal hairline (approximately the first 0.5 cm) grow as single units. Behind that the natural hair groupings are in twos and threes, not more. Large grafts produce an uneven density that doesn't mimic nature and this is the most common complaint that patients have about their transplant, ie. that it looks like a transplant and doesn't look natural.

The third issue you raise, that "very small grafts, although natural cannot be placed close enough together without injury to simulate the density of the larger grafts," has already been answered. The goal should not be to simulate the density of the grafts, but that of nature. The obsession with density misses the direction we should be headed. The goal of all hair restoration surgery is to produce a fullness that will look natural as the individual ages. An attempt to match or exceed one's original density, even if only at the frontal hairline, will not only be cosmetically unacceptable in the long term, but will tax the donor bank and limit the ability to cover additional areas as the balding progresses. In judicious planning the grafts in the frontal hairline should contain only single hairs and be placed close enough to block the eye from looking into the scalp, but not so dense as to be unbalanced as the patient balds further.

Finally, the statement "large sessions force distribution of the transplanted hair over the entire extent of the balding scalp"

is incorrect. The transplant surgeon using extensive grafting of small follicular units has the total freedom to place these grafts in any distribution that he chooses and if planned appropriately would be exactly in the "crucial frontal zone" that you describe. I agree that the vertex should always be left open in a young extensively balding individual with an average or below average donor density. When the patient has had permanently transplanted hair covering the front and top of his scalp, and the fullness is to his satisfaction, and he still has some reserve of donor hair to address further diminution of the donor fringe, then the crown can be addressed. And this would best be accomplished by extending the transplanted region further backward rather than treating the crown as an isolated area.

Continued experience with the megasession will show that it increases the power and flexibility of the transplant process rather than limit it. Future work should be directed at exploring the various ways this safe but technically demanding procedure can be of benefit to the balding patient.

- [Back to Medical Publications](#)