



# forum

VOLUME 11, NUMBER 4

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## Estimate Number of Grafts and Donor Area

Steven C. Chang, MD *Newport Beach, California*

**T**o estimate the number of grafts is not an easy job. I would like to present the approach that we have been using for three years in our facility.

We first calculate the total area of coverage. Based on the total area of coverage, we then can decide the size of donor area that should be harvested. From the size of donor area, we then can determine the number of grafts, which depends on the size of graft. The sequence is very important.

### Measure the Area of Coverage

Please keep in mind that the scalp is in three dimensions so it is very difficult to calculate 100% accuracy, but we only need an approximation.



Figure 1. Material needed to measure the coverage area.

- 1) Discuss with the patient to find out his desired coverage area; and draw the area directly on his scalp with a "China Marker" (or a black eyebrow pencil).
- 2) Apply the transparent sheet (plastic food wrap) over the scalp.



Figure 2. Draw the area directly on the scalp with a marker.

- 3) Trace the coverage area on the transparent sheet.
- 4) Place the transparent sheet over the *specially designed graphic paper\** to count the number of small squares. (Each small square = 1cm<sup>2</sup>, big square = 4cm<sup>2</sup>). In this way, you can estimate the approximate coverage area in square centimeters easily.
- 5) Take a digital photo of the scalp with the mark; keep it on file for future reference.
- 6) Photocopy the transparent sheet and keep it in patient's chart. (When the patient comes back for surgery, compare the coverage area to make sure it is exactly the same as measured during consultation.)

\*You can download a copy of the graphic paper from the Website: <http://www.hairtransplant.com/Spencer.pdf>

### Decide the Size of Donor Area

From my experience, 90% of our patients are satisfied with a 50% donor site density. Of course, this depends on the patient's hair color/texture, skin

color, contrast between skin and hair color and patient's age, we have to do some adjustment.

For an average person, we assume 50% donor site density gives adequate coverage.

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# President's Message



Marcelo Gandelman, MD  
Sao Paulo, Brazil

## Our Second Opinion

Recently, working at a state medical board, I was asked to examine a hair transplant patient. Escorted by his lawyer, the patient declared himself a victim of a badly performed surgery.

He felt the need to sue his surgeon because of another doctor's criticism. However, at the examination, I noticed that the results were excellent.

In over 15 years' experience working for the state medical board, I have noticed that most litigation results from another doctor's remarks. The patient, looking for a second opinion, obtains low whistles, widening eyes, shaking heads, disapproving smiles, and outright frowning.

The patient is alert to our corporal expression. Derogatory comments of relatives and friends don't have as much negative impact as those of other doctors. The patient feels more righteously angry, because we are signaling to him: "You are stupid—you chose the wrong doctor instead of me and now you have poor results."

Some friends of ISHRS complain that negative comments made by other doctors regarding their surgeries cause troubles with their patients.

Nowadays, we are inclined to discuss surgical techniques with the patient: "I use follicular units that other doctors don't use," "I perform scalp reductions and my neighbor doctor doesn't." But when we compare different techniques, we sometimes increase their misinformation. We see this on some patients' home pages. They mix unscientific data with our masters' textbooks. Healthy patients even develop new symptoms, discussing procedures on their home pages and quoting from medical books.

Patients tend to exaggerate complaints and to compare the doctor that operated on them (that naughty professional!) with us (their savior!). Many doctors feel their ego inflated when that happens. We usually don't resist flattery; we become as happy as a baby who laughs heartily when he sees an adult taking a tumble.

Sometimes an excellent result doesn't satisfy our patient and a mediocre one amazes him. You know that the most common post-operative complication in hair transplantation is a dissatisfied

patient because we practice a dermatological-surgical-psychosomatic specialty. When we are asked for a second opinion, our position is very difficult. Giving advice is much easier than accepting it. Patients and their lawyers ask for it to begin a malpractice suit. If you make negative remarks they go straight to the court, but if you disregard a colleague's mistake you are being disloyal to the patient and to yourself. Doctors should be impartial when stating a second opinion. We are not lawyers—we examine, not cross-examine. If the patient refuses to continue the treatment with his original doctor, I always say that the result is satisfactory and that I can continue his original work.

A good doctor is neither the doctor that heals nor the doctor that knows. A good doctor is the one who the patient trusts. Being honest, showing interest, and giving constructive ideas win the patient's trust and allow us to relieve his doubts without sending him to the judge. Even if a colleague displeases you, remember that our words are a boomerang—they come back and tomorrow we could be on the bench. ♦

*Marcelo Gandelman*

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**President:** Marcelo Gandelman, MD  
**Executive Director:** Laura Musgraves  
**Editors:** Dow Stough, MD, and Russell Knudsen, MBBS  
**Assistants' Editor:** Cheryl Pomerantz, RN  
**Managing Editor & Graphic Design:** Cheryl Duckler  
**Advertising Sales (Interim):** Leah McCrackin, 847/330-9830; [lmccrackin@aad.org](mailto:lmccrackin@aad.org)

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The ISHRS Golden Follicle Award sculpture, as seen on the cover of this issue, was designed by Francisco Abril, MD. Dr. Abril offers for sale, copies of a small bronze hair follicle sculpture (10" high). For more information, please contact: Clinica Dr. Francisco Abril, PO dela Habana, 137, 28036 Madrid, Spain. Phone: 34-1-359-1961; Fax: 34-1-359-4731.



# Editors' Message

At the end of every first consultation with a prospective patient comes the crucial patient question: "How many grafts do I need?" This seemingly straightforward question is anything but simple to answer. Our lead articles in this *Forum* give differing but practical guidelines to the calculation of the number of grafts required and the size of the donor area thus required.

Many surgeons have their own methods; some scientific, some based on "experience" (i.e., an educated guess). Steven Chang's idea of quoting "percentage cover" rather than actual numbers of grafts is intriguing and has some merit. We have used this technique in our own practices and it provides a simple method to guide the patient toward the idea of *reduced, yet adequate* cover. Calculation of the recipient area should be mandatory if meaningful graft numbers are going to be quoted in terms of coverage. Bessam Farjo and Steven Chang use different, but simple methods to do the calculation. Many may find these and John Cole's suggested technique (part of Dr. Farjo's article) accurate enough to be helpful.

Long-time surgeons may find the recent focus on mathematics perhaps bemusing at first glance and of marginal relevance. Nothing could be further from the truth. The shift toward large numbers of follicular unit (FU) grafts/micrografts has necessitated a more accurate method of giving the patient information upon which to base his decision. Recognition of the range of "normal donor density"—



Russell Knudsen, MBBS  
Sydney, Australia



Dow B. Stough, MD  
Hot Springs, Arkansas

80–100 FU/cm<sup>2</sup>—is meaningful in terms of describing to the patient the expected outcome of a single session of grafts.

What can we tell the patient to expect from a single session? This varies according to a number of factors. Hair calibre, color, and curl all have a significant impact on the visible coverage achieved but are purely *patient* characteristics. In addition, patients may have a budgetary limit as to what they are prepared, or able, to spend in a single session. *Surgeon* characteristics relate to the average number of hairs per graft used (i.e., exclusively micrografts/FU grafts vs a mix of minigrafts and micrografts) and the number of grafts per cm<sup>2</sup> provided. Surgeons such as David Seager and Ron Shapiro have, in Hawaii, recently reminded us just how many FU grafts are required in a given area to provide "adequate coverage." Ron Shapiro tells us that 100 cm<sup>2</sup> is the area of the frontal forelock in extensive baldness. This equates to 2,000 FU grafts to

achieve a density of 20 FU grafts in the first session. Most surgeons do not provide this number of grafts even though we prefer to think we are providing 25% coverage in a single session. Dr. Seager achieves higher density rates because he prefers to provide only a single session to 80% of his patients. He readily acknowledges this requires over 3,000 grafts in a single session.

Few surgeons provide 2,000–3,000 grafts in a session. In fact, few surgeons provide 20 or more FU grafts/cm<sup>2</sup> in any session. "Megasession" transplants with "close-packing" require numerous, well-qualified and experienced team members. It is sobering to do the calculations and acknowledge the real density we are offering in a single session of FU/micrografts. Patients generally believe that the offering of over 1,000 grafts provides them with good coverage and perhaps the chance to avoid any further sessions. No matter what the recipient area size we are transplanting, an accurate calculation of the percentage of normal density achievable in a single session allow us to offer a range of graft numbers to our patients and a realistic guide to them of expected outcome. Any system that prevents the patient from being disappointed by unrealistic expectations is to our mutual benefit. We recommend these articles to you. ♦

*Russell & Dow*

## To Submit an Article or Letter to the *Forum* Editors

Please send submissions via a 3½" disk or e-mail, double space and use a 12 point type size. Remember to include all photos and figures referred to in your article. For e-mail submissions, be sure to ATTACH your file(s)—*do not* embed it in the e-mail itself. We prefer e-mail submissions with the appropriate attachments.

Submit all North American entries (Canada, USA, Mexico) to:  
Dow Stough, MD  
One Mercy Lane, Suite 304  
Hot Springs, Arkansas 71913  
e-mail: [sstough@cswnet.com](mailto:ssstough@cswnet.com)

All other entries to:  
Russell Knudsen, MB, BS  
Level 3, 4-10 Bay Street  
Double Bay  
Sydney NSW 2028  
AUSTRALIA  
e-mail: [russell@hair-surgeon.com](mailto:russell@hair-surgeon.com)

*Submission deadline for the September/October issue is August 10; November/December, October 10.*

# Notes from the Editor Emeritus



Richard C. Shiell, MBBS  
Melbourne, Australia

## New ISHRS Membership Directory

I scanned through the new *ISHRS Membership Directory* with great interest and noted that we now have 646 members (down a little from 655

members in the year 2000). However, the number of countries represented has increased from 43 countries last year to 51 in 2001. The new representatives are from Belgium, Brunei, Dominican Republic, Indonesia, Iraq, Kyrgyzstan, Singapore, and Venezuela.

While most countries have maintained a steady membership, Canada has risen 7%, Korea 30%, Mexico 40%, and Argentina 83%. On the other hand, Australia has lost 9 members (35%) and the USA 35 members (9%). The top dozen countries remain the same but places have changed and Australia has slipped numerically from third place to equal fifth with Brazil. Korea is now in clear third spot with 21 members.

The number of Medical Assistants has dropped from 175 to 132 due to a decline in USA membership. Foreign membership, as with medical membership, has increased around 10%. Perhaps the ISHRS should take steps to make Assistant membership more economical once the sponsoring physician is himself a member as all copies of the *Forum* for the doctor's staff can be sent to the same address.

## Possible Reasons for Decline

I have discussed this many times previously and it is acknowledged by many experts that there is a decreased demand for hair restoration because of the current fashion for very short hair. Obviously, the physicians with the smallest practices are likely to suffer most and close inspection of the latest figures demonstrate that these are more often the ones who have withdrawn from membership of the ISHRS. Of all the disciplines in Cosmetic Surgery, modern hair restoration is the most

labor intensive and the most dependent on good staff. It is extremely difficult for a doctor and his or her assistants to maintain interest and skill levels unless performing at least one case per week.

## Korean Meeting

Prof. Jung Chul Kim conducted the first Asian Workshop devoted solely to hair transplantation in Taegu, South Korea, on April 28–29. This was run in conjunction with the ISHRS and the WHS. It was enormously successful and a full report will appear elsewhere in this issue.

The Korean membership of our Society has risen steadily from 6 to 16 and now 21 over the past three years. Prof. Kim was our first Platinum Award winner in 1994. His fellow countryman, Dr. J.C. Choi, has been very influential with his Choi Implanter making inroads in the West as well as in Asia. It appears to have stood the test of time and left more expensive Implanters like the Rassman, Markman, and Boudjema floundering in its wake. Modifications by Prof. Kim and others are starting to appear and these implanters may become more widely used in the years ahead, especially in regions where doctors cannot delegate the needle-stick or implantation procedures to non-medicos.

## In a Whirl About Whorls

We are all familiar with the research that has shown that men with crown baldness appear to have a higher incidence of coronary artery disease. (see my articles in the *Forum*—Vol. 7, No. 3, p. 19 and Vol. 10, No. 5, p. 154). Now an article has appeared in *Applied Animal Behaviour Science* (Vol. 73, p. 93) suggesting that the position of the forehead whorl in cattle and horses may be related to temperament. Dr. Temple Grandin from the University of Colorado had heard of the suggestion from horse trainers and scored the behavior of over 1,500 cattle in auction rings in Colorado and Texas. She found that those animals with a high whorl or none at all were more likely to be agitated in the auction ring (a high startle response to unfamiliar situations).

Hair forms from the same layer of cells in the embryo as the nervous system and

may offer markers of neurological development. Humans also have spiral whorls at the back of the head, and occasionally at the front where it is called a "cow-lick." People with conditions such as Down's syndrome may have unusual whorls and fingerprints.

The hair transplant O.R. provides an unusual situation for most humans and many become very nervous before surgery. I wonder if there is a relationship between the position of whorl and patient behavior? Here is an interesting little research project for some of our members.

## Scientific American

This renowned monthly magazine ran a review article on the human hair cycle and growth research in the June edition. It makes the complicated genetics almost understandable to the layman and I am sure that all *Forum* readers will be fascinated to read where research into the hair cycle has reached in 2001.

## ABHRS Poll

There appears to be a small but vocal minority of ISHRS members who oppose the ABHRS and a poll has been organized and circulated without including sound arguments in support of either camp. Readers wishing to get an appraisal of both Pro and Con arguments should consult the April 1999 *Forum* where Bob Haber presented some arguments against the Board and I refuted these and presented some arguments on the necessity of having a certificate of competence in hair restoration surgery. Membership of the ISHRS requires an INTEREST in hair restoration and in no way signifies competence. The carefully designed written and oral examination of the ABHRS has been highly praised by all who have taken it these past three years and I commend it to all of you who are interested in raising personal standards in hair restoration surgery. To others, I remind you that it is only a matter of time before licensing authorities throughout the world insist upon evidence of proficiency before physicians undertake cosmetic surgery of any type. ♦

*Richard Shiell*