“In the mid-20th Century, physicians were the pillars of any community. If you were smart, sincere and ambitious, there was nothing nobler or more rewarding that you could aspire to become.

~*Dr. Sandeep Jauhar~*

Career Satisfaction

What makes a physician happy with their career choice? According to a study conducted at Western Michigan University, factors that make a significant positive impact on a physician’s career satisfaction are:

* The ability to provide quality care
* The ability to spend time with their patients
* Income & Financial Incentives

In other words, when a physician or a surgeon, can make a significant difference in the lives of his patients, providing quality care, while meeting the financial needs of his family, he experiences a far greater degree of career satisfaction.

Through the years, the high quality of patient care provided by physicians has remained consistent. However, based the needs of their medical practice many physicians find themselves needing to spend less time with a greater number of patients. They also commit a larger percentage of their income to the maintenance of their practice.

What are the results of these trends? A Wall Street Journal conducted a survey of 12,000 physicians, and found only 6% described their morale as positive.

Medical Practice vs. Surgical Practice

Medscape/Web M.D. conducted a survey of 24,000 physicians representing 25 different medical specialties. They found that:

* Only 54% of the physicians said they would choose medicine again as a career, down from 69% only three years ago.
* Just 41% would choose the same specialty again.
* Only 25% of doctors said they would choose the same practice setting, compared with 50% two years ago.
* This same article identifies, “frustration and discontent among physicians” due to:
  + Declining incomes
  + Excessive paperwork
  + Vast uncertainty about changes dictated by the Affordable Care Act

When we look specifically at surgeons, the Annals of Surgery found that with respect to career satisfaction:

* 71 % of the study participants indicated that they would become a physician again.
* 74% would become a surgeon again, if they could revisit their specialty choice.
* And they included Plastic Surgeons in the specialties with the greatest satisfaction with overall career choice.

In fact, according to an article in CNBC, the highest paying profession last year was Surgery!

So What Is It Like To Be A Hair Transplant Surgeon?

Surgical Hours

Your day as a hair transplant surgeon is quite different than it is as a medical physician. This begins with the timing of your first patient of the morning. Given that you will only be seeing a few patients per day, it becomes less of a necessity to begin each day at 8 a.m. Instead, given the needs of the patient, it’s not uncommon for a surgery to begin as late as 10 a.m.

The duration of the surgery is dependent on the type of procedure being performed. The procedure could entail the Mini Strip Procedure, the FUE Procedure or even a Body Hair Transplant (BHT). And frequently, it is a combination of the above. Also relevant is the number of grafts needed for the individual patient. Over all, you will finds that some surgeries last 4 to 5 hours and some will last up to 10 hours.

Delegation

While we will address the details of who usually performs each step of the hair transplant surgery, for now, just know that your support staff performs a percentage of the procedure for you. While this percentage is flexible, you as the surgeon are free to be as hands on or off as you desire. As an example, few if any surgeons convert the dissected Mini Strip of donor hair into individual grafts. They delegate this tedious and time-consuming step of the procedure to their surgical technicians. This frees the surgeon’s time to address issues outside of the surgical room. Ideally, they would use that time to conduct another procedure on a second and maybe a third patient.

Insurance Companies

Remember those never-ending battles with the insurance companies? Well, your new practice does not accept insurance. It’s a cash business. No insurance battles, and no denials. The patients put down a deposit when scheduling and pays the balance when they arrive for the procedure.

Paperwork

Since your new surgical practice does not accept insurance, you will no longer have to deal with their extensive demands, including their paperwork. Also since you only see 1, 2, up to 3 or 4 patients a day, your daily paperwork will be even further reduced. Paperwork will no longer be the burden it is for many medical physicians.

Support Staff

One of the biggest expenses of owning your own Medical practice is the cost associated with maintaining your support staff. According to last years report from the Medical Group Management Association (MGMA), on average, a physician owned medical practices required 5.52 individual support staff per physician. A physician owned surgical practice averages 3.72 staff per physician. In fact, with so few patients, many Hair Transplant Surgeons only need to employ 2 or 3 support staff.

Barriers to Building a New Surgical Practice

Time

Few physicians in the medical field can justify the time commitment required to develop and grow a secondary practice. This type of undertaking frequently requires full-time obligation. Clearly, this level of commitment is at best, prohibitive due to the full time commitment of their current practice. Also, the demands of a single practice frequently keep many physicians away from their loved ones longer and more frequently then originally anticipated. So for most, the addition of a second practice means giving up any time then is available.

Financial Considerations

Time is money, and any time spent away from your current practice is money lost. This is the reality of the medical physician; if you are not there grinding away, you don’t make money. For most physicians, this reality makes it almost impossible to start and grow a surgical practice while maintaining their medical practice.

Peace of Mind

Along with the already-considerable investments of time and finances, significant mental energy is needed to learn and hone a new craft, while addressing the thousand other details and issues clamor for your attention, all while maintaining your current practice. It’s not surprising that the stress level also increases exponentially.

Your New Surgical Practice

FUE Surgical Group addresses these barriers by allowing you to continue to focus on your medical practice, while we work diligently on the development and growth of your new surgical practice. With our program and support, your new surgical practice is steadily developed over a two-year span, thereby tempering investments of time, money, and stress.

Post FSG

Working with us, you can expect to build a thriving surgical center with all the advantages that come with owning a surgical practice. And while we offer comprehensive service and expertise in our field, the final outcome of the process depends on the level of physicians’ commitment and participation. However, if you decide to take on this endeavor and are committed to the process, you will find that FUE Surgical Group makes owning a surgical practice a very realistic and appealing goal.

Your Old Medical Practice

Once your surgical practice has been established, you will have both a medical as well as a surgical practice. You will undoubtedly choose to focus on the more profitable, and less stressful surgical practice. This leaves you with a few options for your medical practice that include, selling it to a new doctor, or hiring a new doctor to run the practices. Either way, your old medical practice is converted from a stressful job, to a valuable asset.

Building Requirements

One of the realities in this type of endeavor is that you are the surgeon, and as such, there are a few requirements that fall to you in order to participate in this program. The first two are simple and obvious, you need a license to practice in your area and you need the appropriate insurance. This should not be a problem for most physicians.

Another requirement is based on physical structures. By law, you need to be in the office or on the campus in order for our techs to do anything medical or surgical. So based on this, it is essential that either a surgical area within your current space, or in an office on your campus be made available. If you feel that the latter is your best option, you will need to check with state guidelines to confirm the legality of this arrangement in your specific area.

The role of FSG

FSG provides a wide array of services that are focused initially on establishing your new practice. This includes but is not limited to:

* We assist in the procurement of the necessary equipment and supplies.
* We provide detailed instruction on how to utilize the equipment and supplies.
* We provide information relative to medication and its administration.
* We provide you with a surgical technician who will offer assistance and support in all relevant surgical matters.

Each of our surgical technicians is covered by malpractice insurance. They have years of experience in all aspects of hair transplantation and will be there as both a technician to perform whatever portion of the surgery you need, and a personal guide to the intricacies of hair transplantation.

* We provide patient recruitment services.

One of the biggest challenges to opening your new surgical practice will be patient recruitment. One of the obstacles to patient recruitment is that you will, initially, lack a portfolio of before and after photos. Most patients choose a surgeon based on their before and after photos. The reality is that it takes a year, sometimes longer to develop a significant pre and post surgical portfolio. Until that happens, FSG can assist in this area. We are able to recruit up to a few patients a month. Initially this low number is actually ideal. It allows you to develop both your skills and you new surgical practice without becoming overwhelming. However, it should be seen as supplementary to other patient recruitment methods.

* We provide a pre-designed web page.

We offer a fully developed web page that is designed to provide your potential patient with relevant information about the services you offer. Of course you are free to develop your own website to greater reflect your personality and vision if you so desire.

* We help clients identify and sign up for membership in relevant surgical associations and societies.

There are a variety of societies and associations that a hair restoration surgeon can join. From a sales perspective, the more of these groups you are associated with the better. Some have exacting standards that you must meet in order to join, while others are simply a matter of filling out the application and mailing it in with a check.

* We assist in developing patient financing options.

There is no question--hair transplant surgery is expensive. For a full head of hair with 6,000 FUE grafts cost on average $30,000. Not everyone has this kind of investment sitting in a bank. However, for those with decent credit, there are plenty of lending institutions that focus specifically on plastic surgery. Offering this service increases patient satisfaction and facilitates patient recruitment.

* We provide you with the surgical paperwork (excluding the doctor’s report).

We provide you with copies of generic paperwork that you can customize as you choose. These include initial consultation paperwork; medication administration paperwork, operation report, incident report, post-surgical instructions and patient consent forms.

* We assist you with identification and procurement of relevant literature.

While FSG is a tremendous resource, your success as a surgeon will inevitably depend on the development of your skills. This type of skill development is usually obtained through literature, videos, lectures and of course, practice. You will find that even as you approach your 20th year as a surgeon, there will still be more that you can learn. We provide you with information relative to your early stages of skill development

* We provide you with scheduling support.

When you schedule a patient for surgery via telephone, we offer a scheduling website that assures that your preferred surgical tech is available on that date, so you can book the tech right then and there, with email confirmation. This site is confidential and no one but our staff has access to your information.

* We offer initial patient consultation support that is discreet.

Early on, initial consultations can be a bit daunting. FSG can provide you with a technician who is in the room at the time of the consultation. This technician can discreetly guide the conversation to the relevant and best solution for the patient and the surgeon. Ideally, this type of consultation will be directly before or after a surgery, thereby cutting back on the technician’s travel time. We also provide support for online consultations. Simply forward the pictures and information your patient emailed to you and we will share with you our opinion of the patients condition, and solutions relevant to their needs.

* We have staff members that do research.

If you want to impress your potential patients, it’s vital to show that you are knowledgeable and up to date on all things relevant to hair transplantation. This is simple to accomplish by having regular updates to your website. Ideally, these updates are reports that address relevant scientific issues written in layman’s terms. Our staff scours the hair and surgical journals for articles that offer new insights, new procedures, a new tool or really anything relevant and significant to this process. Once our staff completes a report, it is forwarded to you, and you determine whether or not to add it to your website.

* We are there to answer your questions.

You will be given a number that you can call and reach someone from FSG so we can answer questions the moment the need arises.

The Procedures

Mini Strip Method

This is a new concept that combines the best of FUE and the Strip Method. It involves the use of a 1 cm long elliptical punch. The goal of the procedure is to create Strip-level graft count with near FUE-level scarring. This means that with the Mini Strip Procedure, you can get the same high number of grafts as you can with the Strip Procedure but without the linear "strip" scar.

This punch is used to superficially score (cut) the donor region, by applying downward pressure with the tool onto the scalp while rocking it back and forth. This results in the isolation of 20 to 40 follicular units, depending on the number of hairs available per cm2. The surgeon then uses forceps to lift the isolated donor area while using a scalpel to free it from the surrounding donor area. This is repeated until the correct number of grafts has been harvested. Then the surgeon closes the sites with two stitches per wound.

The donor mini strip is further dissected into grafts by technicians and counted. As the techs ready the grafts for implantation, the surgeon prepares the recipient sites. This is done using either a straight or rounded blade to create a slit of 0.8mm for single hair grafts and up to 1.2mm for grafts with 4 – 5 hairs.

Once the technicians complete the dissection of the follicular units and the surgeon has prepared the recipient sites, the grafts are then placed into the recipient sites by the technician and the assistant.

Advantages

* Significant reduction in donor area scarring compared to the strip procedure.
* Nearly equals strip procedure in the number of grafts that can be transplanted.
* Can be used to reduce scars from previous procedures.
* Allows for gentle removal of the donor follicles.
* Ensures that 100% of the grafts scored are successfully removed.
* The superficial depth of the isolation score decreases transection.
* No torsion and rotation injury to the graft often associated with the FUE procedure.
* The fastest rate of donor area removal.
* Requires the least skill set by surgeon or tech.
* Easy to calculate number of grafts harvested.
* Can remove donor grafts from smaller, less-utilized areas.
* Due to the size of the punch, the elasticity of the scalp becomes irrelevant.
* An inexpensive alternative to the old Strip Method.

Disadvantages

* Scars are bigger when compared to the FUE Procedure.
* Takes longer to heal than does the FUE Procedure.
* Increased risk of complications and infections compared to the FUE

Follicular Unit Extraction FUE

FUE is similar to the Mini Strip procedure in that it uses a surgical punch to isolate areas of the scalp, prior to extraction. However, while the mini strip punch is elliptical in shape and one cm in length, the FUE punch is round and only .7mm to 1mm in diameter. This smaller punch only allows the dissection of one follicular unit at a time.

This hollow FUE punch is loaded into a hand held device similar to a dental drill, which then rotates it. This allows the sharp punch to score the scalp directly around the individual follicular units. Once the scalp is scored, this loosens the graft allowing a pair of forceps to grasp the graft and gently pull the graft free from the underlying tissue.

With the FUE procedure, the grafts are scored (or isolated) one at a time. This is time consuming and very skill dependent, since we can only see the very top of each follicular unit. This is referred to as “Blind Isolation.” While this tends to be an issue for those new to the procedure, once an individual develops an understanding of the hair and scalp, and gains experience, Blind Isolation ceases to be a problem.

Frequently, the surgical technician with a loupe or a set of surgical magnifying glasses sits very close to the patient’s head and slowly isolates one graft at a time. Once the desired number of grafts has been isolated, the technician and an assistant use forceps to extract the grafts, and prepare them for placement.

This is usually where the surgeon comes in. After choosing the placement and direction of the recipient site, he uses either a straight or rounded blade to create a slit in preparation for the placement of the grafts. This usually takes less than a half an hour, and is a skill that is developed over time. This step is seen as both an art form and a science, as the placement and the angle of the incision determine the final appearance.

Once the recipient sites are prepared, the surgeon hands the patient off to the surgical technician and his assistant. They use forceps to place the grafts into the individual recipient sites, working on both sides of the head simultaneously.

Advantages

* No linear scar
* Almost imperceptible Nano Scars
* Less chance of nerve damage
* Less invasive
* No increased scalp tension
* Ideal graft selection, cherry picking
* Retains donor area’s natural growth patterns / swirls / directions / angles
* Retains natural hair shaft diameter gradation/groupings
* Patients can return to even rigorous exercise sooner than with other procedures
* Exact graft count
* Use of body hair and beard hair
* No sutures or staples
* No potential for scar stretching
* Optimal for small cases/eyebrows/beard work/scar repair

Disadvantage

* More expensive than either strip procedure
* Blind isolation increases graft transection.
* Requires the patient to get a close-cropped haircut.
* Requires patients to be still for longer period of time.
* A limited number of grafts can be transplanted in a given day.
* Larger procedures can span several days.
* Less hair can be harvested overall

Strip Procedure

The FUE Surgical Group does not recommend the Strip Procedure. The Mini Strip Procedure offers a preferable equivalent to the antiquated strip method

The measurements of the donor scalp to be extracted depend on the number of follicular units to be transplanted, as well as the scalp’s laxity (how loose or tight the skin of the scalp is). The better the scalp’s laxity the wider the donor strip can be, and therefore, the shorter the resulting scar. With less laxity, the scalp is too tight to remove a wide donor strip, and instead a longer narrower strip must be removed in order to avoid the scar stretching and widening.

Once the specific donor area has been identified and prepared, the surgeon uses a specialized scalpel that measures the number of grafts per cm2 by utilizing two fixed blades on one scalpel that determine the width of the donor strip.

The resulting wound is then closed with sutures or staples and the donor strip is further dissected into individual follicular units or grafts by technicians. During this step the individual follicular units are separated from the donor strip and counted. While the techs are preparing the grafts for implantation, the surgeon creates the recipient sites. Once the technicians complete the dissection of the follicular units and the surgeon has prepared the recipient sites, the grafts are then placed into the recipient sites by the technician and the assistant.

The result of this extensive and unnecessary trauma is that the patients’ head is permanently and significantly scared. If the surgeon underestimated the patients’ future hair loss, then the scar would become visible. Needless to say, this would be a tragic consequence for any patient.

For the Strip Procedure, these complications include:

* Significant scarring in the donor area.
* Limits the patients’ ability to have short hair.
* Patients are almost always unhappy with the resulting scar.
* Longer recovery period.
* Increased risk of hemorrhage.
* Increased risk of infection.
* Greater risk of surgical complications.
* Each procedure results in the scalp getting tighter or reducing its laxity.
* Increased risk of nerve damage.

The simple fact is, that with the Mini Strip and the FUE Procedures, there is no longer the need to rely on the Strip Procedure.

-Body Hair Transplant (BHT)

With the ability of the FUE procedure to remove single Follicular Units at a time, we develop the ability to harvest hairs from areas other than the scalp. This Body Hair Transplant includes the harvesting of beard hair, chest hair, leg hair, armpit hair, and really, hair from any place on the body. This is extremely helpful for patients that lack traditional donor hair on the scalp, but have hair on other parts of the body.

The procedure is almost identical to the FUE procedure, with the obvious exception of the origins of the donor hair. Also body hair tends not to follow as straight of a trajectory as head hair does, as it protrude out from beneath the skin. Instead, it frequently changes its curvature beneath the surface of the skin. However, with knowhow and practice, you will learn to anticipate the directional changes.

It’s important to know that the quality of body hair differs from traditional donor hair. In fact it differs in quality depending on the original bodily location of the donor hair. As a general rule body hair is best as filler for creating density. In other words, you would not want to create a hairline with only body hair, because it would not resemble a natural hairline. The rule is to use what donor hair is available from the scalp to create the hairline and if necessary, use the body hair to create density.

The Donor Area

All hair transplant procedures begin with the identification of the donor area. This area lies in a band that starts above the occipital protuberance (the bump felt in the middle part of the back of the scalp) and extends to either side in a gentle, upward sloping curve that follows the contour of the scalp. This area is not subject to the effects of Dihydrotestosterone or DHT and therefor is considered permanent hair and unlikely to fall out.

The measurements of the donor scalp to be extracted depend on the number of follicular units to be transplanted. Also, the number of follicular units per cm2 needs to be taken into consideration. While most patients have between 80 – 100 follicular units per cm2, the number can decline depending on genetics, environmental and behavioral factors.

The Hair Cycle

The state of a given hair is regulated by a specific growth cycle. The mature follicle undergoes successive transformations from anagen (active hair shaft production) to catagen (apoptosis-driven regression) to telogen (resting phase with the involution of hair follicle). Certain growth factors function as biological switches that control the active phase and promote apoptosis to induce catagen and telogen, as well as the telogen-to-anagen progression. The main growth factors involved in these processes are:

* Platelet-derived growth factor
* Transforming growth factor beta
* Fibroblast growth factor
* Insulin-like growth factor 1
* Vascular endothelial growth factor
* Epidermal growth factor

Potential Financials

Let’s first look at an average weeks income in an average medical practice. If our average (but hard working) medical physician works 6 days a week seeing 30 patients per day, at $100 per patient, this practice will generate $18,000 per week. A very respectable income, but it comes at a high cost. Now lets look at a few potential financial scenarios focusing on your new surgical practice.

2-year conservative – 3 patients per week

At the end of two years, from a conservative perspective let’s anticipate only three patients per week, two FUE and one Mini Strip. Completing 2500 FUE grafts at an industry average of $5 per graft equals $25,000 income from the two patients. Completing 4000 mini strip grafts at the industry standard of $3.50 per graft equals $14,000 for the Mini Strip patient. Collectively that’s $39,000 for the week. From a financial perspective, this represents a reasonable upgrade, for a three-day week.

2 year realistic – 5 patients per week

For a more realistic perspective, lets assume 5 patients in 4 days. Basing our calculations on the same surgical scenarios as above; we can then calculate the income of three 2500-graft FUE procedures and two 4000-graft Mini Strip procedures. While the three FUE procedures would bring in $37,500 for the week, the Mini Strip would bring in an additional $28,000. Collectively, this is a significant improvement over a medical practice, for a four-day week.

5 year conservative – 6 Patients per week

At the end of 5 years from a conservative perspective, if we anticipate six surgeries in a four-day week, we would calculate three FUE procedures and three Mini Strip procedures. If we maintain our calculations from above, this results in an income of $37,000 from FUE surgeries and an additional $42,000 from Mini Strip surgeries. Again, this is accomplished in a four-day week.

5 year realistic – 8 patients per week

For a more realistic perspective, lets assume eight patients. Again we will follow the calculations above and divide the surgeries equally between FUE procedures and Mini Strip procedures. This results in an income of $50,000 from the FUE patients, and an additional $56,000 from the Mini Strip procedures. However, for this level of income, you might have to work 5 days a week.

It’s important to understand that these numbers are representative of a practice that is diligent with its patient recruitment process. These surgeons are frequently seen online and on hair transplant forums displaying their work, answering questions, and writing papers.

Different types of equipment

FUE Equipment

There are a number of FUE specific devices available. The least expensive go for about $100 and the most expensive is approximately $200,000, and there are plenty of options in between to fit every budget. There are several relevant factors to consider when deciding which machine to use in your practice; the first is cost. Given that this is a new venture, most surgeons starting a new practice tend to invest between $3,500 and $20,000. This allows them to develop a level of comfort and confidence in their new surgical practice before they contemplate making larger investments into equipment.

A second consideration is the number of grafts that can be accomplished in a given day. The $100 hand tool is obviously the slowest option. The machines with motorized rotation of the surgical punch are faster. These Motorized FUE machines make up the bulk of what is available. Some are simple battery-operated, hand-held devices, while the most popular are tabletop models that have separate foot pedals to control the hand device. These machines cost between $3,500 and $20,000.

Stepping up from there, are machines like the NeoGraft that utilizes suction to draw up the graft through the surgical punch and into a collection chamber. This has the benefit of extracting the grafts in one step. Without this option, the extraction is a two-step process, first isolation with the surgical punch and then the extraction with a pair of forceps. While this may not seem like a significant difference, when you are extracting 2500 grafts, saving this additional step can save you time.. This machine and ones with similar capabilities, allow for the greatest number of FUE grafts transplanted in a single day. The NeoGraft machine is approximately $100,000, and there are other models available for about $30,000.

Believe it or not, the $200,000 machine is a computerized robot. The arm of the ARTAS Robot is fitted with a FUE punch and the on-board computer tells the arm where the grafts are and which ones to isolate. While this machine moves quickly and is capable of isolating and punching the grafts in a short period of time, that’s all it does. When its work is done, the isolated grafts still need to be extracted and placed into the recipient sites by hand. One important issue is that the ARTAS requires a larger 1 mm punch. This leaves larger wounds then is necessary with non-robotic options.

The Chair

Given that the patient will need to spend one half of surgery lying face down and the other half, sitting up in a reclined position, the choice of the surgical table is important. However, instead of a surgical table, we recommend a chair, specifically, a medical massage chair. These chairs provide the full range of motion needed for this procedure, are designed to be stable with larger patients, and they have a modern look. The manually controlled chairs cost approximately $1,500 and the motorized version costs approximately $3,500.

The role of the technician

Initially, as needed, the surgical technician can act as a guide to the specifics of the surgery. This level of guidance is very discreet, and comprehensive. This type of assistance usually lasts for the first month or so. At that point, the assistant and any other participants clearly understand their roles in the procedure and from then on it becomes more about practicing in order to hone your skills.

One factor that defines the role of the surgical technician is what the surgeon chooses to delegate. Assuming that you choose to follow the established patterns for the procedures, we know that, prior to surgery, the technician will be responsible to assure that the patient’s hair is thoroughly washed, trimming the patient’s donor area, preparing the patient’s head with drapes and setting up the surgical equipment.

During a FUE procedure, the technician maintains the patient’s level of anesthesia, uses the available FUE device to isolate the indicated number of grafts, works with the assistant to extract the grafts and assure their health throughout the temporary storage period. The tech then works with the assistant to place the grafts in the recipient sites prepared by the surgeon. Then they assist in applying sterile dressings and provide patients with the post-op instructions.

During a Mini Strip procedure, the technician is also responsible for the further dissection of the Mini Strip grafts into individual follicular units.

The role of the surgeon

As previously mentioned, as the surgeon, you are free to either participate in or delegate any or all portions of the procedure. However, it is reasonable for the patient to expect the surgeon to participate to some degree. With the FUE procedure it is most common for the surgeon to do the initial anesthesia, and to create the recipient sites in the balding areas. Throughout the surgery, and at the very end, the surgeon stops into the operating room and checks up on the progress and quality of the work.

With the Mini Strip procedure, the surgeons usually perform the same tasks as they do with the FUE procedure, including the initial anesthesia, and the recipient site creation. However with the mini strip, the surgeon usually isolates and extracts the donor grafts using the elliptical punch, as well as sutures all resulting wounds.

In either case, assuming the surgical technician is responsible for the graft preparation and graft placement, the surgeon will spend on average 1 – 1.5 hours participating in the surgical room. This includes periodically checking up on staff. Initially, the remaining hours of your day are likely to be spent conducting the affairs of your medical practice. Eventually, these hours will be spent addressing the needs of multiple surgical patients, moving from one surgery to the next.

All surgeons need to provide the surgical technician with an assistant.

The role of the assistant

The surgeon provides an assistant who works with the surgical technician. Prior to the surgery, the assistant works with the tech to assure that the surgical equipment and supplies are prepared and appropriately laid out.

During the FUE procedure, the assistant is responsible for handing the technician any equipment or supplies needed for the isolation portion of the procedure. The assistant then works with the technician to extract the isolated grafts from the scalp. This is usually done with the tech on one side of the head and the assistant on the other, each assuring the health of the graft and its proper storage.

Once the surgeon has created all of the recipient sites, the assistant works with the technician to place the grafts into the recipient sites using forceps. This step is also completed with the technician on one side of the patient’s head and the assistant on the other.

After the surgery, the assistant works with the technician to clean the surgical area.

PRP & ACell

What is PRP?

PRP, or Platelet Rich Plasma is a concentration of autologous platelets in a small volume of plasma with a higher platelet concentration (5-10 times) above the baseline.

How does PRP work?

PRP contains an array of growth factors. These platelet-derived growth factors are directly linked to the biological switches that induce a faster telogen-to-anagen transition. These growth factors stimulate the body’s own stem cells which, in turn produce new Dermal Papilla Cells (DPC), which possess trichogenic properties (i.e. their ability to induce hair follicles and growth). Through the development of new DPC, PRP signals the hair follicles to return to the anagen phase of the hair growth cycle. Once in the anagen phase, the follicles begin to produce hair again.

Studies have also shown a dose-response relationship between platelet concentration and certain proliferative events of significance to wound healing. These growth factors, once introduced into the scalp, activate the body’s own stem cells. As such, PRP has been successfully used throughout a large variety of medical specialties (Orthopedics, Sports Medicine, Dental & Facial Reconstruction, Neurosurgery, Dermatology, Plastic Surgery, etc.) to prevent scar formation and instead enable healthy tissue regeneration and repair.

What is EMC / ACell?

ECM is an animal-derived Extracellular Tissue-Regenerating Technology that has been used extensively in the fields of medicine and surgery to stimulate stem cells and enhance wound healing. The structure of ECM is that of a bio-scaffold and is typically derived from porcine organs such as a small intestine or a urinary bladder. Once collected, this tissue is then prepared with decellularization and terminal sterilization. What remains is a “bio-scaffold” that is the ECM

The body’s natural ECM

The skin is composed of two layers: the epidermis and dermis. The epidermis, the outer layer, consists of a stratified epithelium and resident keratinocytes. Below the epidermis lies the dermis, containing a heterogeneous population of cells, including fibroblasts. These fibroblasts excrete collagen which is organized into a bio-scaffold structure, making up the tissues’ natural ECM.

The function and appearance of tissue is the result of the spatial arrangement of its constituent cells. The physical characteristics of the skin are attributed to the basket-weave structure of the collagen fibers, which make up its ECM. Fibrosis is the formation of scar tissue from a generation of de novo collagen, created during the proliferative phase of wound healing to form a provisional matrix. However, during fibrosis, the fibroblasts responsible for collagen excretion produce an excessive quantity of unidirectional collagen fibers, leading to a tight, structurally dense provisional matrix that results in scar tissue.

Stem Cells & ECM

Stem cells have great proliferative ability, as such, they have the potential to regenerate and repair wounded tissue with healthy scar less tissue. Furthermore, due to stem cells' inherent multipotent properties, they have the capability to differentiate into many different tissue types, making them applicable to treatment of a wide variety of wounds. However, stem cells do not survive well when transplanted alone into the body. They either die or dissipate from the wound site.

The random placement of the collagen fibers in ECM provides a spatial structure needed for the health and proliferation of stem cells. Unlike the dense environment of fibrosis, this structure is similar to the architecture of the natural collagen fiber orientation in scar less skin. This random orientation, also allows cells to lay down epithelium similar to original, unwounded tissue, resulting in significantly decreased scarring.

PRP & ECM

While PRP is responsible for the introduction of stem cells that the wound uses to heal, and growth factors that induce a faster telogen-to-anagen transition, PRP is limited by its inability to survive and long enough for these benefits to make a significant difference. However with the addition of an Extracellular Matrix, we provide the stem cells an environment conducive to their survival as well as their proliferation.

Secure sell sheets bound between left and center panel.

Page 1 - Inside Left Panel (Intro -198 words)

Page 2 - First page of secured sell sheets (Medical vs. Surgical – 170 words)

Page 3 - Second page of the secured sell sheets (So what’s it like – 470 words)

Page 4 - Third page of the secure sell sheet (Barriers – 199 words)

Page 5 - Forth page of the secured sell sheets (Your surgical practice – 379 words)

Page 6 - Fifth page of the secured sell sheets (the role of FSG – 299 words)

Page 7 - Sixth page of the secured sell sheets (the role of FSG cont’d – 271 words)

Page 8 - Seventh page of the secured sell sheets (the role of FSG cont’d – 315 words)

Page 9 - Eighth page of the secured sell sheets (The Mini Strip – 410 words)

Page 10 Ninth Page of the secured sell sheets (The FUE - 519)

Page 11 Tenth Page of the secured sell sheets (The FUE - 519)

Page 12 - Eleventh page of the secured sell sheets (The Strip - 354)

Page 13 - Twelfth page of the secured sell sheets (The BHT - 242)

Page 14 - The inside middle panel (Donor area & Hair cycle – 234 words)

Page 15 - The smallest loose sell sheet (Potential Financials – 417 words)

Page 16 - The second smallest loose sell sheet (equipment – 500 words)

Page 17 & 18 The third smallest loose sell sheet (the role of the Tech – 645 words)

Page 19 & 20 The forth smallest loose sell sheet (PRP & ACell – 647 words)

Page 21 - The outside or the right panel (FSG Contact Information)