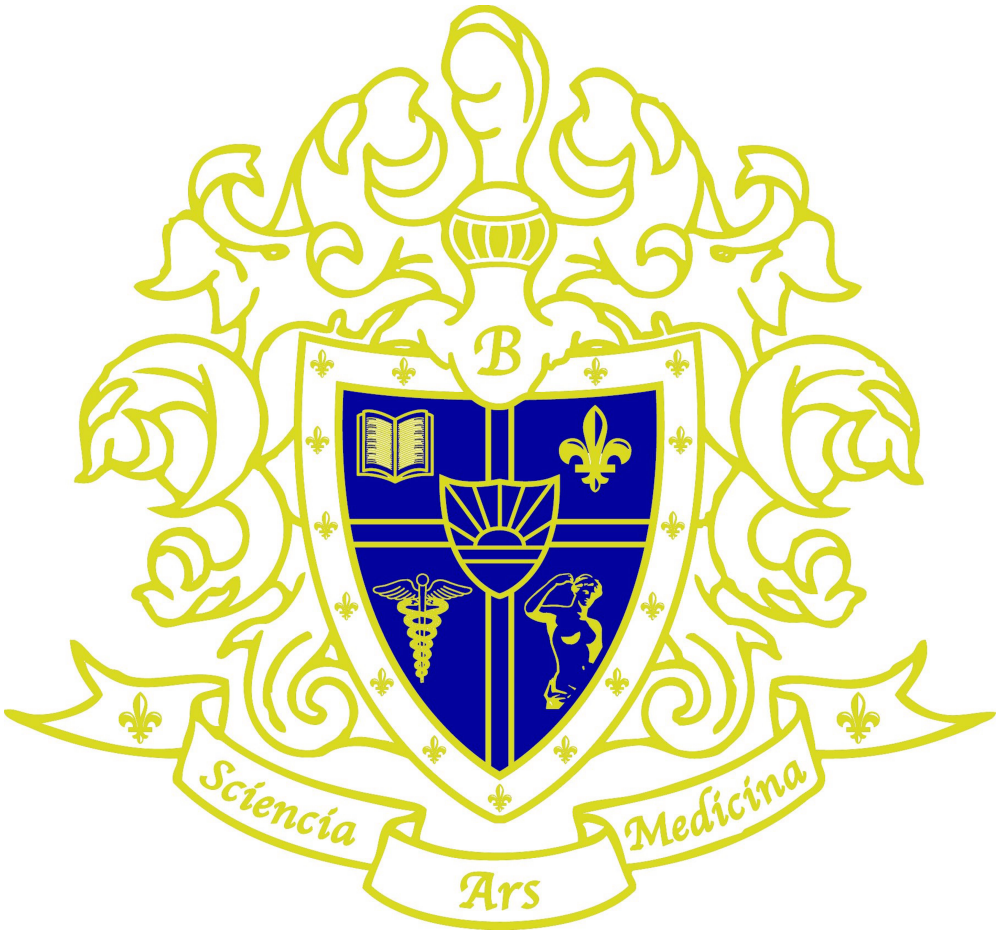
Beeson Cosmetic Surgery

Consultation



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General Considerations

Throughout the ages, individuals have desired to improve their appearance, and for a variety of reasons. As far back as early Biblical times, people were going to physicians to have various facial and body features altered or reshaped. Today, there are many reasons why an individual might seek to improve their appearance. Frequently, the reasons are either social or economic in nature.

Society's Emphasis

Society places an emphasis on looking and feeling good. There is no doubt that we have become an appearance-oriented society. Evidence of this is that cosmetic surgery has become more socially acceptable in the past 25 years.

Public figures and celebrities have gone public about their facial plastic surgeries. This openness did much in the mid-1990's to increase public discussion regarding cosmetic surgery.

In the past 25 years medicine has made tremendous strides. Years ago, the emphasis of medicine was on eliminating disease and suffering. In recent years, the emphasis has switched to prevention. There is an increased emphasis on improving our lifestyles through nutrition and physical exercise.

It stands to reason that as we live longer, we will desire to retain a youthful, attractive appearance as long as possible. Many patients having cosmetic surgery state that they only "want to look as good as they feel." This is a reasonable request and one that cosmetic surgery may help provide.

Economic Reasons

Today, many individuals are starting new or second careers after the age of 40. Unfortunately, with the failure rate of marriages so high, many individuals are re-entering or entering the workforce in mid-life. They want to be competitive and also desire to become more socially active. For these individuals, plastic surgery may help to provide more self-confidence and improve self-esteem.

Many individuals find they are working longer. It is not unusual to find individuals who, in their mid-60's, are viable, energetic and invaluable to their businesses. They wish to avoid the stigma commonly associated with senior (elderly) individuals that they are "ready for retirement." For these people, cosmetic surgery may help to enhance that rested, energetic appearance to match their inner drive. One salesman once told us that our faces are our "calling cards." He said he wouldn't think of making a call on a customer in a wrinkled suit. Why would he want to call on a client with a wrinkled face, when there was an alternative?

In the past, far more females than males have been facial plastic surgery patients. However, an increasing number of men are seeking facial plastic surgery. Corporations commonly undergo reorganization and restructuring every five to seven years to change with the times and environment. Facial surgery provides a similar "restructuring" to help them deal with aging changes and to essentially put our "best face" forward.

Who is a Good Candidate?

Age is no longer a major factor in determining who is or is not a good candidate for cosmetic surgery. The primary factor is a patient's good health. However, chronic health conditions such as hypertension and diabetes do not necessarily mean that a person is not a good candidate for elective cosmetic surgery. Working with one's primary care physician, the surgeon can often successfully address the aesthetic concerns of patients whose health problems would have eliminated them from consideration a few years ago.

It is important to be realistic about what can and cannot be achieved. Surgery, in itself, will not save a failing marriage or get an individual the job promotion they have been seeking. What cosmetic surgery can do is make us feel better about ourselves and increase our self-esteem and confidence.

It has been noted that surgery may stimulate other positive lifestyle changes. These observed changes have included increasing exercise, improving nutrition, and the cessation of smoking. All of these things contribute to the overall philosophy of being the best that we can be. Cosmetic surgery is often thought of as an investment in ourselves (that lasts a lifetime).

Confidentiality

Privacy is something we all cherish. We have made every attempt to keep your privacy intact. In fact, we pride ourselves on the fact that your procedure is confidential and that your privacy is your right.

How Surgery Is Performed

There have been tremendous advances in surgery and anesthetic techniques in recent years that have dramatically decreased the risk, accelerated the recovery time, and decreased the costs of cosmetic surgery. Cosmetic surgery can safely be done on an outpatient basis with the individual returning home after surgery or staying the first night in a convalescent hotel-like facility.

Most procedures are done under a twilight anesthesia. Twilight anesthesia significantly reduces the chances of nausea and vomiting. Newer, longer-acting local anesthetics, used as part of the twilight anesthesia, markedly decrease the post-surgical discomfort a patient experiences. In addition, twilight anesthesia avoids the "hang-over feeling" commonly associated with traditional general anesthesia. Advances have enabled most procedures to be performed conveniently on an outpatient basis.

Goals and Expectations of Cosmetic Surgery

Cosmetic or aesthetic plastic surgery can often improve one's appearance by correction of deformed or unsightly facial features and disfigurements, and by eliminating some of the conspicuous marks of aging.

Reconstructive surgery is that which attempts to restore portions of the face and body to the state that might have existed prior to an injury, tumor removal, or previously unsuccessful surgery.

A prerequisite for undergoing such surgery is a sense of realism born of emotional maturity. It is important to realize that not every patient is a good candidate for surgery, nor is every patient who requests surgery accepted.

The goal of surgery should be improvement and not perfection. If a patient is seeking perfection, he or she should not have surgery. One must be realistic about what can and cannot be achieved.

It is important to realize that the surgeon is a doctor, not a magician. The degree of a surgery's success depends upon not only the skill of the doctor but also the age, health, skin texture, bone structure, muscle strength and tone, and the specific problems of the patient. All of these are widely variable factors. The healing process varies considerably from person to person. No one can guarantee results or how one will heal.

It is also important for the prospective cosmetic surgery patient to realize that cosmetic surgery is not a panacea or cure all for all the problems that one may have. The resulting improvement in appearance may be psychologically beneficial as a result of bringing increased self-satisfaction and self-confidence. However, it will not solve all of one's problems, particularly if an individual blames their appearance for lack of success in life.

It is important for patients to realize that they will not receive universal approval from family, friends, and acquaintances after surgery has been performed. Furthermore, a surgeon often cannot match what the patient has in mind in connection with the operation requested. It may be that the goal of the patient is unattainable surgically or would be "unaesthetic" if it were achieved.

While there is usually a relative minimum of pain and only minor incapacitation and discomfort following most cosmetic surgeries, one must accept that there will be some discomfort and realize that this is usually only temporary.

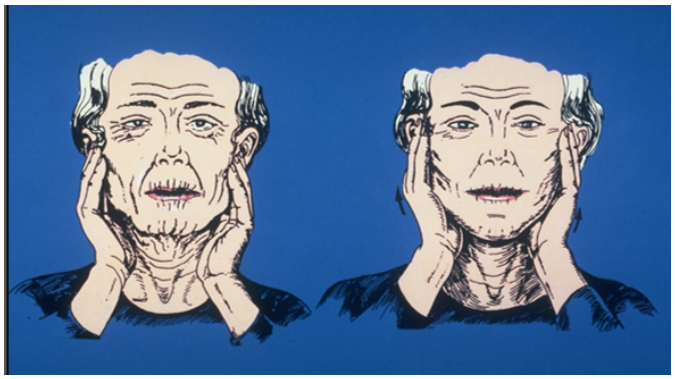
Every surgical procedure, even one as simple as a tooth extraction, entails some degree of risk, both in terms of serious complications and in the sense that the results may not match one's expectations. Although rare, some of the risks might include reactions to anesthetics or other medications, infection, poor healing, injury to muscles and nerves,

numbness, swelling, discoloration, excessive scarring, bleeding, asymmetry, visual changes, pigmentation changes, skin texture changes, airway obstruction, need for additional surgery, etc. It is important for patients to realize this and be willing to accept this fact.

It would be unethical for any physician to guarantee the results of the treatment he or she performs. Therefore, no surgeon can guarantee the results of any operation. They can only strive to do the best that they can to help the patient.
All wounds heal by scar formation; a process over which the surgeon has but little control after the operation has been performed. This accounts for some of the changes, both favorable and unfavorable, that occur as the healing process progresses. It is important to realize that, in the first several weeks after surgery, there is significant improvement and that it may take a year or longer to obtain the final healing.

Facial Analysis

Beauty is defined in Webster's dictionary as "whatever pleases the senses by line, color, form, texture, proportion, motion, or tone." Essentially, beauty is symmetry and proportion. The key to successful cosmetic surgery is to obtain a natural look, which restores symmetry and proportion to the face. It allows for a refreshed, more rested appearance, which naturally enhances and accentuates our best features.

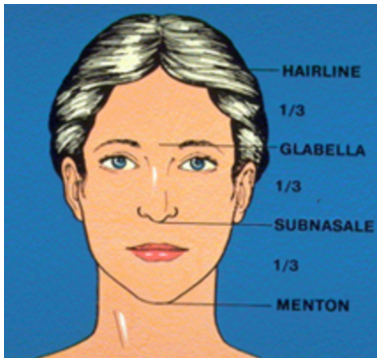


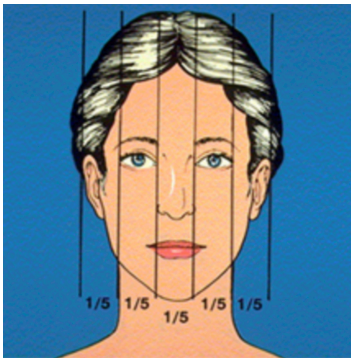
Cosmetic surgery is divided into two types. One type is correcting those parts of the body, which are functionally normal but because of their size and shape, do not complement the rest of our face. An example would be a nose that has a large hump, a chin that is too recessed, or ears that protrude excessively. All of these features tend to make the face disproportionate. Selected surgical procedures can be used to address the particular portion of the face that is out of proportion.

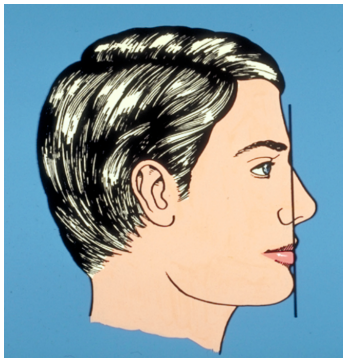
Another aspect of cosmetic surgery deals with aging changes. In these cases, our facial bone structure and proportion are symmetrical, but the aging process results in laxity and sagging of skin and muscle, which causes asymmetry.

As we age, our skin loses moisture and elasticity, the fat redistributes, and the muscles weaken. This can result in sagging jowls, which make our face look more square and longer. It can result in droopy eyelids and eyebrows, which make the face appear narrower. It can result in the “turkey gobbler” neck, which makes our profile unattractive. Many people are surprised that, as they age, their nose gets longer.

The basic tenets that a portrait painter uses can be used by the patient to analyze their own face. Ideally, the face can be divided into equal one-thirds in the vertical dimension by lines at the forehead, eyebrows, base of the nose, and chin. Horizontally, the face should be five eye widths [five times the width of an eye]. If the nose or chin is out of proportion to the other facial features, correction can provide significant harmony. From the profile, the chin projection should be in line with the lower lip. Any deficiency may be corrected with chin augmentation.







Financial Responsibility

Consultation fees are due at the time of the initial visit. A personal check, MasterCard™, or Visa™ are acceptable forms of payment. The initial consultation fee is charged whether or not we recommend that surgery be performed. A very high degree of specialized knowledge and skill are necessary to reach a well-founded opinion on whether or not surgery is possible or indicated. The fact that surgery may not be necessary or advisable in a particular case in no way reflects upon the knowledge and experience utilized by the surgeon in arriving at that opinion. Also, consultation with a highly trained specialist will provide you with a great deal of information on the management of your particular problem, even though you may receive a negative reply to your request for surgery.

Surgical fees are quoted at the end of each individual consultation. If surgery is scheduled, our policy requires all cosmetic surgery fees to be paid in full two weeks prior to the surgery date. This policy assures us that a patient is not undertaking elective surgery that he or she cannot afford and that the patient is sincere in their desire to proceed with surgery. This helps to assure a better doctor-patient relationship. If you are interested, personal loans for financing the operation may be arranged with outside sources. If surgery is canceled, the full amount of the fee will be refunded.

In some cases, procedures may be performed the day of your initial appointment. Removal of moles, cysts, dermal filler injections, Botox treatments, light chemical peels, and steroid injections can oftentimes be performed at the time of the initial visit as a convenience for the patient. Cosmetic procedures require payment in full at the time that services are rendered.

One must remember that all expenses, including a separate fee for use of the operating room, the anesthesiologist's services, cost of prescriptions, and cost of preoperative laboratory tests are ultimately the patient's responsibility.

Financial Policy regarding Medicare and other Health Insurance Policies

Our practice is limited to cosmetic surgery. For that reason, we do not participate in any insurance programs or networks, including Medicare. Patients are entirely responsible for their treatment charges. There may be occasions when a patient desires treatment of a condition for both medical and cosmetic reasons and seeks our services because the latter is a primary concern. In these instances, patients are entirely responsible for their treatment charges, which are due at the time of service. Provisions for insurance coverage vary widely and depend on a variety of factors. If a patient feels they have coverage under the terms of their policy for the services we have rendered , upon request, we are happy to provide them with procedure and diagnostic code numbers for them to use in filing a claim with their insurance company. Our services are not covered by Medicare or MediGap supplemental insurance policies, and charges for our services cannot be submitted for coverage consideration. Patients need to realize that health insurance is a contract solely between the patient and the insurance company of their choice. Patients are personally responsible for knowing the terms and conditions of coverage for their specific health insurance policy regarding medical and surgical services including laboratory and pathology services.

Prior to Consultation

Prior to your consultation, you are asked to complete, as accurately as possible, a medical history evaluation form. This form asks you to detail not only your concerns and desires, but also important information regarding your medical history. It is especially important to list previous surgeries and dates of those surgeries as well as information regarding any current and past medical problems you have had. Of particular importance is listing all the medications that you take along with the current dosage and how often you take them. Please list all allergies and any reactions you have had to medications, anesthetics, soaps, ointments, surgical tape, etc. **Please be sure to bring this completed form with you to your consultation visit.**

Many individuals have schedules such that they desire to have surgery performed at a particular time or as soon as possible after their consultation. If it is mutually agreed that surgery is indicated, we will be happy to reserve a time on our surgery schedule for you. It is helpful if you have a general idea about your future plans prior to coming for your

consultation. Therefore, we encourage you to also bring along your calendar or schedule of events.

The Consultation

The consultation is a very important private and personal discussion between the surgeon and the patient. It is a time for you, as the patient, to ask questions as well as to express your concerns and desires.

The consultation usually begins with a review of your medical history form and a discussion as to your concerns and desires. A more thorough medical history is usually taken at this time. This helps the doctor to determine more regarding your general health and also how you age and heal. A thorough examination of the areas of concern is performed by the doctor. Photographs and electronic digital images are usually obtained to further document the areas of concern. All of this will usually be performed within the privacy of the consultation room.

The doctor then provides you with his analysis of your concerns and various treatment options to consider. If surgery is one of those options, the doctor will explain how surgery is performed, the recovery, and answer any other questions you might have.

We do not provide you with a photo album of pre- and postoperative results for several reasons. The primary reason is that of confidentiality. Secondly, individual results can vary widely based upon bone structure, skin texture, and other physical attributes that are not under the control of the surgeon. Cosmetic surgery is very complex, and each surgical procedure needs to be tailored specifically for each individual. We do not want a patient to be “talked into” a procedure by viewing someone else’s photograph and seeing a result that would be impossible for that patient to obtain.

We thank those patients who allowed us to use their pre- and postoperative photographs in this book for their contribution to medical education. These photographs are included solely to demonstrate a result, which was obtained in their individual situation and should not be used for comparison purposes.

At the end of the consultation, a treatment plan will be outlined for you, which specifically addresses your desires and concerns. We will also provide you with a delineation of costs associated with those recommendations. Our staff will answer any other questions that you might have and, if you wish, assist you in scheduling surgery at that time.

Second Consultation

At times, patients may be asked to return to the office one or more times prior to surgery to discuss proposed surgical improvements. This is particularly true if specialized tests have been requested, or if you have been asked to obtain other medical consultations. An additional visit may help to answer questions you might have and help you to be better prepared for your proposed surgery. There is no charge for these subsequent visits.
You may also be asked to schedule a second consultation if you desire surgery, and it has been an extended time since the initial consultation. This visit is used to reassess your areas of concern, review your proposed treatment plan, and answer any new questions you might have.

Preparing for Surgery – Pre-surgery Visit

At the time you select a date for surgery, you will be scheduled for a pre-surgical visit. This pre-surgical evaluation is usually performed two weeks prior to the procedure. At that time, we will perform a physical exam, provide you with prescriptions for medications and laboratory tests that are needed prior to surgery, and review in detail what is needed for your postoperative care. We will also provide you with instructional brochures that will further review the "do's and don'ts" following surgery. We will again review with you our treatment plans and answer any questions you might have. Our nursing staff will review in detail the preoperative preparation you will go through and the postoperative care instructions. We will provide you with written instructions and how to care for yourself following surgery.

Many of our out-of-state patients find it more convenient to schedule their pre-surgery visit the day before their surgery. In this case, prescriptions for medications and laboratory tests will be mailed to you. You will need to obtain these, as well as clearance from your medical doctor, approximately 2-3 weeks prior to the scheduled date of your surgery.

Hospital Outpatient Facility

The majority of our patients prefer to have their surgery performed on an outpatient basis.

They find that this is not only more economical but also much more convenient and confidential. Surgery can be performed at any of the following health care facilities:

- St. Vincent Hospital, 86th Street/Indianapolis, Indiana
- St. Vincent Hospital/Carmel, Indiana
- IU Heath Hospitals (Methodist, IU, Riley)/Indianapolis, Indiana
- Indiana University Medical Center/Indianapolis, Indiana

If you choose to have surgery done at one of these health care facilities, it is important for you to arrange to have a responsible adult accompany you home upon your release, to stay with you through the first night, and to bring you back to the Center the following

morning for your postoperative visit. If a patient resides outside the Indianapolis metropolitan area or more than 15-20 minutes away from our facility, we recommend an overnight convalescent stay or making alternative arrangements. Our staff can assist you in making lodging arrangements at one of the nearby hotels. They can also assist you in arranging for home nursing care, if desired.

Day of Surgery

At your pre-surgical visit, you will be given written instructions and an agenda for the day of surgery. In most cases, you will be asked to refrain from eating or drinking after midnight. In some cases, you may have a light breakfast consisting of coffee, juice, and dry toast before 6:00 a.m., but only with specific instructions to do so. You will check in at the reception area and be taken directly to your pre-surgical suite.

There, you will wash with special antibiotic soaps and change into a special gown and bathrobe. The doctor will again examine you and answer any questions you might have. Our nursing staff will review your postoperative care instructions and make you comfortable prior to surgery in the privacy of your personal suite.

Our staff anesthesiologist will then meet with you and discuss your sedation as well as answering any questions you might have. We in many cases we use “twilight” anesthesia. With this type of anesthesia, IV medications are given that help the patient “go to sleep.” Following this, local anesthetic is used to supplement the “twilight” anesthesia, so there will be no discomfort. The advantage of the twilight anesthesia is that most patients experience a degree of amnesia regarding the surgical experience and find that they are very alert soon after the procedure. A full range of anesthetic services are available, including general anesthesia. The anesthesiologist will review with you the type of sedation that is most appropriate for your condition and concerns.

Following surgery, you will be taken to the recovery area until you are alert enough to return to your suite.

If you are hospitalized for your surgery, you will be discharged the morning following your surgery. We will release you after having changed your dressings and reviewed with you your postoperative instructions.

If surgery is performed as an outpatient service at one of the listed health care facilities, you will be released from the recovery area after you are more alert. However, it is

important that you be released to the care of a responsible adult. Since you have been sedated, you will not be able to care for yourself. Patients who reside outside of the Indianapolis metropolitan area, or who live more than 15-20 minutes from our Center, need to make alternative plans. If you do not have friends or relatives in the area, our staff can assist you in making local hotel arrangements. We request that patients stay the first night close to our Center, both for your safety and convenience. All patients are seen the morning following surgery at our Center.

Recovery— Postoperative Convalescence

Following your surgery, you will need to be released to the care of a responsible adult. This can be a family member, friend, or we can arrange for a nursing service.

Some individuals prefer to spend the first night in one of the excellent hotels located near our facility. Our staff is more than happy to make such arrangements for you.

Surgery to Reverse the Aging

The morning following surgery, we see you at our Center to change your dressings and to review postoperative instructions. Follow-up care is a crucial component of the healing process. We pride ourselves on our individual, personalized care. We will see you the day following surgery, at one week, and then at varying intervals depending upon your needs. We're always happy to see you more frequently, if you desire. There's no charge for postoperative care visits.

Oftentimes, patients are "sensitive" when they are not looking their best and want to be very confidential. We have special follow-up care areas so that you may come and go discreetly during the early phase of the healing period. Our staff is also specially trained to instruct you in "coverup" techniques to conceal bruising in the early healing stages in order to minimize disruption of your normal routine.

Things You Should Know About Surgery

One must be willing to accept the temporary swelling and discoloration that occurs, to a varying degree, following such operations. Though typically disconcerting visually, such temporary changes are not painful and most people find it a negligible inconvenience to pay for the physical and psychological improvements they experience in the long run.

As following all incisional surgeries, there will be scars. However, these are customarily hidden in the hair or placed in natural facial folds or lines so that they eventually become more inconspicuous or virtually invisible. They may be adequately camouflaged with cosmetics and hairstyling soon after the procedure in order to allow individuals to resume their normal social and work activities. The much-feared scar, called a keloid, is extremely rare on the face. Certainly, some individuals are more prone to scarring than others.

It is also important for patients to have realistic expectations. Obviously, a person who is in their later years and has had significant loss of tissue elasticity is not going to heal as quickly or have as long-lasting a result as an individual who is much younger and has maintained a much better physical condition.

As the lifespan lengthens in modern America, most people feel vigorous and energetic long after their appearance begins to deteriorate as the result of advancing years.

Yet, the onset of aging plays an important role in the welfare of many men and women. Almost everyone knows of people whose employment opportunities have been limited or curtailed because they "look old," even though they might be more capable and competent than younger individuals. All are aware of the limitations the appearances of aging impose in the social sphere. Finally, the emotional impact can be tremendous.

It is understandable, therefore, that many people today are consulting cosmetic surgeons for help in eliminating the signs of aging when they first appear, or after they are well established.

If one wants to remain looking youthful and energetic, it is possible to perform a continuing series of relatively minor cosmetic surgical procedures as each of the reversible changes of aging makes its appearance. The patient can often be kept looking much more youthful through the years by this method. This is the ideal situation.

The Aging Process

The changes associated with aging do not occur at once. They evolve slowly and involve several components of the face.

The skull, or bony structure, actually becomes thinner and smaller, thereby causing overlying tissues, particularly in the facial area, to become excessive. This phenomenon, along with the simultaneous loss of elastic tissue, results in the deepening of lines of expression in the forehead and at the sides of the mouth, sagging of the outer parts of the eyebrows such that the eyes appear to be smaller, the development of pouches along the jawline, and the well-known "double chin." At this same time, degenerative changes occur in the outer layer of the skin itself, such that it seems to "look tired." As the elastic tissue breaks down, the face becomes etched with numerous fine wrinkles, or what we term medically as "rhytids."

The muscles and tissues around the eyes often weaken, such that fat herniates through them to produce the commonly seen "bags" or pouches that are frequently associated with aging.

As part of the fat in the face is absorbed, the remainder begins to sag unevenly and hang loosely due to the effects of gravity.

Finally, many people are seldom aware that the tip of the nose droops with age, causing it to appear larger and longer. Repositioning the tip of the nose with a "nose lift" can have dramatic and lasting effects on reversing the aging process and providing more aesthetically pleasing symmetry to the face.

One needs only to look at a child's face to see the aging process in reverse—larger eyes, smoother skin, and shorter nose.

It can be seen, therefore, that each individual presents a different problem, or set of problems. Consequently, the corrective procedures indicated vary from individual to individual. For example, one person may require only elevation of the sagging eyebrows for improvement in the eyelid area, while another individual may require both support of the eyebrows and removal of redundant skin in the upper eyelids.

When Is Cosmetic Surgery Indicated for Aging?

"When" is an often-asked question. The best answer is when laxity of the skin to the face and the neck and bagginess in the eyes is not a temporary condition relieved by rest, or when it becomes increasingly difficult to improve with the use of cosmetics.

Not everyone seeking this type of surgery is an acceptable candidate. We advise against surgery in people with serious diseases, those who are too obese, those whom we think have unrealistic expectations or improper motivation, and some who refuse to follow our recommendations regarding the type of surgery needed.

Cosmetic surgery can turn back the clock, but it does not stop the ticking. No operation can permanently prevent aging. However, the individual never appears as old subsequently as he or she might, had the operation not been done. Most individuals find that they have a more rested, refreshed appearance.

Pre-op

Post-op

Oftentimes, individuals feel they look 10-15 years younger. However, the aging process doesn't stop. We like to think of surgery of the aging face as being on a conveyor belt. An individual who is chronologically 50 may have cosmetic surgery performed and look 10-15 years younger. They appear physiologically as if they are 35-40 years of age.

However, just as the conveyor belt keeps moving, the aging process continues. Ten years later, the individual is now chronologically 60 years of age; however, physiologically, they look 10 years younger [as if they were 50]. It is not necessary to have additional surgery. However, to maintain a more youthful look, additional procedures can continue to provide a more youthful, rested appearance—a preventive maintenance program of sorts.

Blepharoplasty (Eyelid Surgery)

Eyes are one of the first areas to show aging. Some people refer to the eyes as the "windows of the soul." They are certainly the focal point of the face and increased laxity of skin can portray a tired, sad, or melancholy appearance when in actuality we feel otherwise. Blepharoplasty surgery, or the eyelid tuck as it is sometimes called in layman's language, primarily gives us a more rested appearance by reducing the excess skin and fatty tissue, which can develop in both the upper and lower eyelids with aging.

The entire eyeball is surrounded by fatty tissue, which medically we call adipose tissue. With aging, fatty tissue can bulge forward, especially in the lower eyelid, and form a hernia, just like in any other part of the body. The dark circles that people complain of are oftentimes not due to pigmentation in the lower eyelids, although that can occur in rare instances, but is usually due to a shadow effect caused by this excess fatty tissue. This results in a convex bulging to the lower eyelid with a resultant concavity that causes the shadowing effect. This is the reason the condition may appear more severe in various kinds of light.

The condition may be worsened during a woman's menstrual cycle, or when one is eating or drinking an increased sodium diet. Both of these conditions result in an increased fluid retention by the body. The fatty tissue attracts this fluid which results in an increase in bulging in this area. If the condition is detected early the fatty tissue can be removed simply by using a laser on the interior part of the lower eyelid and removing the fat without any external incision. This is called a transconjunctival blepharoplasty. The fatty tissue is removed and the skin re-drapes into its normal position. However, if the condition has persisted too long or the skin laxity has markedly increased, then both skin and fatty tissue need to be removed. This would be the traditional blepharoplasty or eyelid tuck.

Pre-op

Post-op

The appearance of our eyes is an individual characteristic. It is due in part to the shape of the bony cavity (the orbit). Some people have a very prominent superior orbital rim, which affects the shape of the periorbital area. Little can be done to alter bone structure of this area. In some cases the depth of our eyelid crease is determined by the amount of cartilage in the eyelid area. This is an inherited characteristic and there is a limit to how much can be modified. For example, an individual with small eyelid fissures may be able to obtain significant improvement in the appearance of their eyes and a well-rested look, but may never be able to obtain a large, deep-set upper eyelid fold due to their anatomy.

Pre-op Post-op

Individuals show changes in the eyes at varying ages. The average person as early as age 25 may have enough laxity in the upper eyelid that they can obtain significant improvement and at approximately 25-30 for the lower eyelid. However, our individual anatomy in this area varies so greatly that a good rule of thumb on the time to seek eyelid surgery is, for women when it becomes difficult to place eye shadow on the upper eyelids, and for men and women when a good night's sleep doesn't get rid of puffiness in the lower eyelids.

Most often a droopy eyelid is due to laxity in upper eyelid skin. Infrequently it may be due in part to an abnormality in one of the upper eyelid muscles. A small muscle called the levator aponeurosis can sometimes lose its attachment to the cartilage in the eyelid or can become dysfunctional with age. When that occurs, the eyelid can drop. This usually occurs unilaterally. In this condition the muscle needs to be tightened as well as removing the excess skin and fatty tissue in the upper eyelid area. When this condition occurs there can be significant improvement, but there will always be some asymmetry or slight difference in the position of both eyelids.

Surgical Procedure

Eyelid surgery is usually performed under twilight anesthesia on an outpatient basis. The skin is then removed and excess fatty tissue from the middle (medial) most portion of the eyelid is also removed. In some cases the upper eyelid muscle may be contoured. The incision is closed with dissolvable sutures and/or sutures that run underneath the skin and can be painlessly removed after one week. Within approximately one week the incision conforms to the natural contour of the eye and is hidden in the eyelid fold. Laterally it blends into the fine eyelid creases in the outer part of our eye.

In the lower eyelid an incision is made several millimeters below the eyelash line and is carried laterally into the skin crease. The skin and muscle are reflected down and three fatty tissue pockets in the lower eyelid are opened and excess fatty tissue is removed. The skin and muscle are then repositioned and excess skin is removed. The incisions are closed with interrupted dissolvable sutures. Frequently special tape is used to support the lower eyelid area for a week after surgery. This helps to reduce the amount of swelling and bruising and allows an increased amount of extra skin to be removed more safely.

Pre-op Post-op

If the only problem in the lower eyelids is bagging secondary to excess fatty tissue, often the laser can be used with no external incision. In this case the laser removes the fatty tissue from inside the eyelid with no incision on the outside of the eyelid. If, however, excess fatty tissue has resulted in stretching of the lower eyelid skin, then both fatty tissue and skin need to be removed in the traditional blepharoplasty with an external incision.

Patients commonly will ask how long eyelid surgery lasts. Because the tissue is removed, one will always look better than they would have had they not had the surgery. Unfortunately we continue to age, so there will always be changes in this area. We are fortunate that eyelid changes do not occur as rapidly after surgery as changes in other areas. This appears to be due to the fact that the fatty tissue does not recur and that the eye is located within the bony structure and appears to be protected somewhat by the gravitational and environmental effects of aging as contrasted with the cheeks, jowl and neck area which may need tuck up procedures after a facelift.

Various types of chemical peels can be used to remove wrinkling in the eyelid area and provide an additional tightening effect to the skin. Each type of peel varies in the degree of wrinkle removal and tightening that is obtained. Some provide an increased lightening effect to the skin in the eyelid area. A new development in recent years has been the use of the laser to resurface or rejuvenate eyelid skin.

Recovery

Following eyelid surgery, an individual needs to sleep with their head elevated approximately 30 degrees for the first two weeks following surgery. They need to refrain from lifting over 5-10 pounds or activities which result in heart rate elevation for the first 7 to 10 days following surgery. This will help to minimize the amount of swelling and bruising. Eyelid incisions are cleansed with hydrogen peroxide soaked q-tips 4-5 times a day during the first week. The patient can wash over these areas or get in the shower, as

long as the shower spray does not directly hit the face. In fact, this is encouraged in order to accelerate the wound healing. Makeup can be applied after 7 days. Applying makeup sooner could result in irritation to the incision lines and should be avoided.


Pre-op Post-op

Ice water-soaked compresses are applied to the eyelid area constantly for the first 48-72 hours following surgery. This is critical in helping to reduce swelling and bruising, decrease discomfort and accelerate wound healing. Ice packs work well, but do not contour into all areas of the eyelid and therefore increased swelling and bruising can result. This problem is eliminated with wash cloths soaked in ice water.

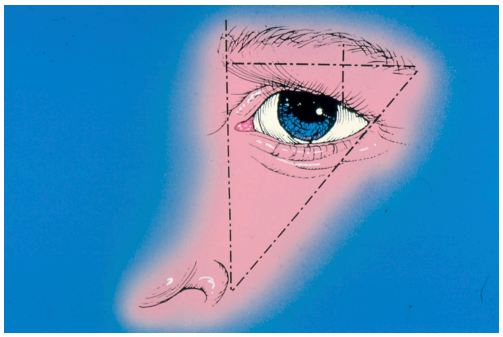
One needs to limit eyelid movement for the first 48 hours after surgery. This means they should keep their eyes closed as much as possible and use the cold compresses. If an individual was reading, watching TV, or doing paperwork immediately following surgery, each time they blink their eye they would be pulling and stretching the incision lines. This obviously will decrease healing and result in more swelling and bruising. During those first 48 hours the patients should have as much eye rest as possible. Most patients find that at the end of one week, they can resume their normal activities and have significant improvement in their appearance as compared to before surgery. Makeup can be used to camouflage the minimal swelling and bruising that can occur in some patients.

When transconjunctival blepharoplasty is performed, patients can often return to normal social and work activities within 48 hours. Advances in laser technology allow this surgery to be performed with much less discomfort, bruising and swelling. However, this procedure can only be done if there is good elasticity to the lower eyelid skin.

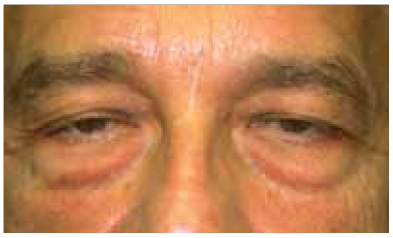
Aesthetic Considerations for the Upper Third of the Face

The upper third of the face is a very expressive area and is a focal point not only for emotions, but also in an aesthetic sense. It is also one of the first areas to demonstrate aging changes.

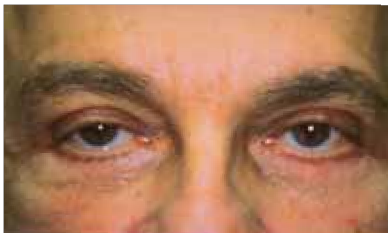
Ideally, the distance from the hairline to the eyebrow area would equal one-third the vertical height of our face. The eyebrows would be located at the level of the bony orbital rim, and slightly higher in females. The medial and lateral aspect of the eyebrow would be on a horizontal plane, with the highest point of the eyebrow being the lateral third.



As we age, gravity can result in a downward positioning or "ptosis" of the eyebrows. This can result in a flattening appearance of the eyebrows and more fullness in the upper eyelid area. It gives the appearance of a longer forehead area and a shorter mid-facial section. This can also result in the eyes appearing much smaller in size.



Pre-op



Post-op

In addition to the general gravitational effects of aging, muscle movement in the forehead area can also contribute to the aging process. Smiling, squinting, and frowning all can result in increased wrinkling and tissue laxity in the forehead area. Over a period of time, deep furrowing or "rhytids" can develop in the forehead and lateral crow's feet areas.

Procedures designed to reposition the eyebrows to a more natural location can provide a more rested appearance to the face and actually make the eyes appear to be larger. In some cases, the down pulling or drooping of the eyebrows can actually interfere with vision, and correction of this deformity markedly improves one's lateral vision. Repositioning of the eyebrows can be performed with an endoscopic forehead lift or with a direct browlift, or transblepharoplasty brow suspension procedure.


Pre-op Post-op

In some cases, not only is there significant ptosis of the eyebrows, but also laxity in the forehead tissues with excessive wrinkling. In these cases, treatment needs to be directed not only to repositioning of the eyebrows but also to restoring elasticity to the forehead tissues and decreasing wrinkling. This can be done through endoscopic forehead lift surgery.

Direct Browlift

This procedure is used to treat severe sagging of the eyebrows. It is used when there is marked asymmetry between the eyebrows, as can be the case when there has been a previous injury from trauma to the muscles and nerves, such as with motor vehicle accidents. In this procedure, an incision is made along the upper eyebrow margin. Excess skin is removed and the eyebrow is supported in a higher position. Dissolvable sutures are used to close the skin edges and to negate the need for suture removal. Makeup can be used to camouflage the incision after seven days. In the ensuing weeks, the incision gradually fades into a natural skin crease in the area.

The procedure is performed under twilight anesthetic on an outpatient basis. Patients need to sleep elevated for two weeks and apply cold compresses for 48-72 hours after surgery. Most individuals find that they can resume their normal social and work activities within seven days.

Transblepharoplasty Brow Suspension

This procedure is used when the sagging of the eyebrow is noted in the lateral two-thirds of the eyebrow and is often done in conjunction with upper lid blepharoplasty surgery.

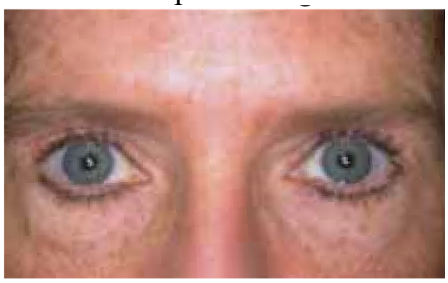
The incision is hidden in the skin crease of the upper eyelid area. Working underneath the skin and muscle, the eyebrow is elevated into its proper position, and special sutures are used to position the eyebrow permanently. Dissolvable sutures are used to close the eyelid incision.

Patients sleep with their head elevated for two weeks and must refrain from any heavy lifting for the first seven days following the procedure. Cold compresses are applied for the first 48 hours after surgery. Most individuals find they can resume their normal social and work activities within seven days.

Endoscopic Forehead Lift

This is an example of minimally invasive surgery. It is a newly developed technique that addresses laxity in the eyebrow and forehead area. In this surgery, small incisions are made behind the hairline. Using specially developed lasers with small telescopes, the sagging tissues in the forehead area can be elevated and repositioned. This procedure is especially helpful to address specific areas of sagging such as the medial portion of the eyebrow and to help contour muscles in those individuals who have severe wrinkling due to excessive muscle movement. The use of special lasers helps to minimize the amount of swelling and bruising associated with this procedure, as well as greatly reducing the amount of postoperative discomfort.

Tissues are repositioned and secured in place with the use of clips and pins hidden in the hair. These dissolve or are removed 7-10 days after surgery. A light dressing is applied immediately after surgery and removed the following day. Ice compresses are used over the forehead area for the first 48 hours. Patients sleep with the head elevated for two weeks and refrain from any heavy lifting or straining for the first seven days after surgery. Swelling is usually minimal. In some individuals, mild swelling can occur 3-5 days after surgery in the mid-forehead and eyelid area. However, this is usually minimal. Most individuals find that they can return limited activity three days after surgery and normal activity within seven days.



Pre-op

Post-op

The advantage of this surgery is that small incisions allow one to heal very quickly with a minimal amount of discomfort. The incisions are hidden in the hair, so they are not detectable. The procedure helps to decrease the excessive muscle movement in the forehead area as well as repositioning the eyebrows to a more natural position. In some cases, laser resurfacing may be performed simultaneously or at a later date to help further rejuvenate the forehead tissues and to further remove wrinkling.

Facelift

Pre-op Post-op

As we age, the almond-shaped face goes to a more oval configuration. An oval face goes to a more round shape, and the round goes to a more square shape. The square shaped face ages the least gracefully, because even minimal redundancy is noted immediately. Individuals with high cheekbones and an almond-shaped face can camouflage laxity of skin and muscle more readily. These people age the most gracefully.

Normally there is a groove that runs from the nose to the corner of the mouth called the buccal labial fold. This is a normal anatomical finding because of the junction of muscles in this area. However, as we age this fold may become more prominent. When it extends below the corner of the mouth and begins to form the jowl, this is the time when most people feel that surgical correction is needed immediately. Other individuals tend to treat this laxity before it extends to this more dramatic end point.

There are two ways of addressing laxity in this mid-face area. One can think of it in terms of a hill and valley. One way to address the problem is to fill in the valley, however this method is usually temporary. This can be done with injectable collagen, microlipo injections, or facial implants such as Gore-Tex. These are all outpatient procedures with a minimal convalescence and can satisfactorily reduce the prominence of the buccal labial folds. This can help to preserve or extend a more rested appearance to the face and in some cases postpone the need for facelift surgery.

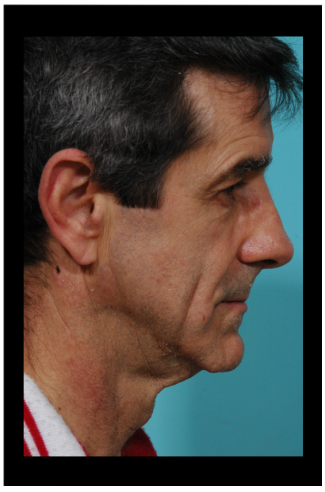
On the other hand, one can treat prominence and sagging in this area by reducing the hill. This would essentially be a facelift procedure, which would remove the excess skin and tighten lax facial muscles. Eventually the valley is going to become too deep to be filled and the only treatment option will be to reduce the hill, or the facelift procedure.

The facelift procedure, or rhytidectomy as it is medically called, treats the neck, cheek, jowl, and lateral temporal area. It gives the ultimate improvement in facial plastic surgery because it addresses all the areas of concern, and reposition tissues into a more normal, natural position.

Aging results in loss of moisture from the skin, the fat redistributes itself, the skin becomes more lax and the muscles become more lax. Facelift surgery addresses many of these areas. Liposuction is used in conjunction with facelift surgery to remove excess fatty tissue and fatty tissue that has repositioned itself in aesthetically unpleasing locations. In some, fat can herniate down into the jowl area and accentuate fullness in this region. Liposuction can be used through a small incision on the inside of the mouth to remove the excess fatty tissue in this area.

Pre-op

Post-op



Pre-op

Post-op

Facelift surgery repositions muscles into their normal position. With aging there can be a diastasis of muscles. This is most prominent in the neck area where the platysma muscle sags, resulting in the deep banding or cording in the neck. By repositioning these muscles we obtain a more natural, more physiologic appearance. We feel it is important to reposition the muscles into their natural position and avoid cutting or altering the position of the muscles, feeling that this would give a more artificial appearance and prolong the healing process. Facelift surgery then removes the excess skin.

Newly developed lasers have greatly accelerated the healing after a facelift surgery. The high-energy, super-pulsed CO2 laser has been shown to reduce swelling and bruising associated with facelift surgery significantly in most individuals. Usually, patients are able to return to work and social activities within 7-10 days.

Pre-op

Post-op

How long does facelift surgery last?

A facelift will essentially last forever, because the excess skin has been surgically removed. However, we will continue to age. The day we have surgery performed, we still continue to age. One needs to think of this in terms of a conveyor belt of time. If one has surgery at the age of 50, following surgery they may look 10 years younger. This means that chronologically they are 50, but physiologically they appear to be 40. Unfortunately the conveyor belt of time keeps moving and 10 years later, chronologically they are 60, but physiologically they look 10 years younger (50). When they are 50 they desire to have a more rested, youthful appearance. For that reason many desire to maintain this look with repeated surgeries. However, this is certainly not necessary.

It should be pointed out that every facelift patient could get improvement with a tuck-up one year after surgery. However, that is not obligatory and many patients are so satisfied with their appearance that they defer a tuck up. We think it is important to have a very natural appearance and to create a good foundation for surgery that allows those individuals to maintain their result as much as possible.

Because the skin is surgically removed with a facelift, there will always be some degree of permanent improvement. However, we will continue to age. The degree at which we continue to age depends upon a number of factors including general health, environmental exposure, nutrition, and other numerous variables. However, many people who have facelift surgery desire to maintain this look with repeated surgeries. However, this is certainly not necessary.

Pre-op Post-op

Pre-op Post-op

Surgical Technique

In the female patient, incisions are hidden within the skin creases around the ear, going behind the tragus (the small flap of skin immediately in front of the opening to the ear canal). This means there is no incision in front of the ear, which can be a telltale sign of facelift surgery. The incision then goes behind the ear and back into the hairline. In the frontal temporal area the incision extends superiorly into the hairline. The incisions around the ear are closed with dissolvable sutures in multilayers. The hair is not shaved and incisions in the hair bearing tissues are made within hair parts. Small clips are used in order to allow the patient to shower following surgery. In most cases, a small incision is

made in a natural chin crease below the chin. This helps to obtain additional support and contouring in the neck and submental area.

With facelift surgery, excess fatty tissue is removed, the muscles in the neck, cheek, jowl, and lateral temporal areas are supported, and the excess skin is removed.

In some cases an endoscopic facelift can be utilized. This is a “minimal incision” type of surgery where very small incisions are hidden behind the hairline and small telescopic instruments are inserted underneath the skin and are used to elevate and to reposition tissues in the mid-facial area. The advantage of this procedure is that the incisions are very small, they are not routinely visible, and the recovery time is very fast. In our experience, approximately 15% of facelift patients are candidates for the endoscopic facelift. These patients tend to be younger individuals who have good skin elasticity and “sagging” which is localized to the malar (cheek bone) area or deeper nasolabial folds. The technique is also useful in selected patients who have had a good foundation established with their initial facelift and are able to utilize the endoscopic facelift for a “tuck.” The more skin laxity there is, the more likely a traditional facelifting technique will be needed.

Recovery

Following surgery a turban-like dressing is used for the first 24 hours. Cold compresses are placed over the neck area. The following morning the dressing is removed and cold compresses are applied to the face and neck areas for the next 48 hours. Hydrogen peroxide-soaked q-tips are used to clean over incision lines, followed by showering 4-6 times a day to accelerate wound healing and prevent crusts from forming. Individuals need to sleep with their head elevated 30 degrees for two weeks and avoid heavy lifting or straining for the first 7-10 days following surgery. One should also minimize movement of the head and neck for one week following surgery to avoid stretching those newly positioned tissues. This means driving is prohibited for one week. Makeup can be applied after one week. Most individuals find that they can resume their normal social and work activities within 1-2 weeks following surgery.

Mid-facelift

Endoscopic mid-facelift (cheek lift) is a procedure that can lift sagging cheeks, smooth nasolabial folds, and lift up the corners of the lips. It can be performed independently or in combination with an endoscopic forehead lift, blepharoplasty, facelift, or neck lift.

This is a minimal incision surgery and is performed by using a tiny, fiber optic scope to tunnel underneath the skin and re-position the tissues of the cheek back to their original, more youthful position. This procedure is performed through a small incision hidden behind the hairline and is appropriate for individuals with mild to moderate skin laxity.

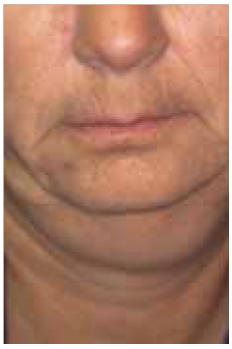
The mid-facelift is not a replacement for a facelift. However, it is an excellent procedure for patients who prefer no visible incisions and a quick recovery. Most individuals find that they can resume their normal activities within 2-4 days following the procedure.

S-Lift

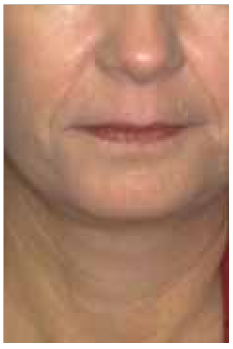
An S-Lift is designed for patients who are concerned with tissue laxity in the cheek and jowl area, but desire more immediate results with little "down time" and a smaller incision. The S-Lift is a mini face lift that provides support and rejuvenation to tissues in the cheek-jowl area. A small incision is hidden within the skin crease in front of the ear. Most individuals are able to resume their normal activities within 5-7 days following the procedure.

The advantage of the S-Lift (mini-facelift) is that it provides a refreshened look with a quicker convalescence for individuals who have mild to moderate tissue laxity in the cheek and jowl area. The disadvantage is that the S-Lift does not address tissue redundancy in the neck and submental area. A neck lift, submental lipectomy, or facelift would be necessary to improve the neck and submental region.

Neck lift

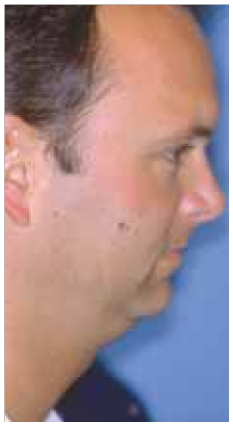


Pre-op

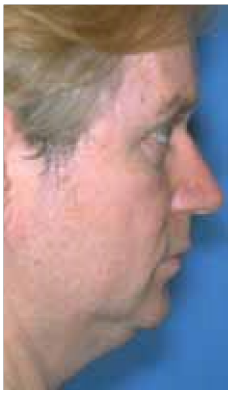


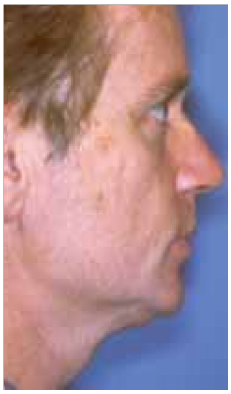
Post-op

The neck lift is designed to treat laxity in the neck and the submental area. It is especially helpful in treating the "turkey gobbler" neck and the deep cords or unsightly bands that often develop in the neck. These are due to laxity of the platysma muscle. For people with advanced or premature aging in the neck area, the neck lift can provide significant improvement with an accelerated recovery.



Pre-op Post-op





Pre-op Post-op

Surgical Technique

The neck lift is a minimal incision surgical technique. The endoscopic neck lift utilizes a small incision approximately one-half inch in a small crease hidden underneath the chin. Incisions are also made in the crease behind the ear so that no incisions are visible. Using a tumescent technique similar to that of body liposuction, anesthetic solution is injected into the neck area and the submental region. Small cannulas, smaller than the size of a pencil, are used to perform liposuction to remove the excess fatty tissue in the submental area. Following this, special instruments are used to separate the redundant skin and muscle. Utilizing endoscopes, sutures are placed to support the platysma muscle back into its normal position. The incisions are then closed using dissolvable sutures. If there is significant skin laxity, incisions can be carried into the hair behind the ear to allow for further improvement. Small clips are used to close the incisions so that the hair does not need to be shaved and instead, can easily be used to camouflage the areas.

Recovery

A small stockinette type of dressing is usually applied. Individuals apply cold compresses for the first 48 hours after surgery. They need to sleep with their head elevated for two weeks and refrain from heavy lifting or straining for one week following surgery. They usually will be able to resume normal social and work activities within 3-4 days and normal physical activity without restrictions at seven days.

While the neck lift is not replacement for facelift surgery, in many cases 80% of the improvement that a facelift would provide to this area can be achieved with a neck lift—but with the ability to avoid any visible external incisions and a much reduced convalescence and healing time. This technique is especially beneficial for men who want to avoid the preauricular incision that is necessary in a male facelift yet are concerned over laxity of tissue in the neck area. It is commonly performed on younger individuals who have premature aging in the neck area. The procedure is done under a twilight anesthetic on an outpatient basis.

Liposuction of the Neck (Submental Lipectomy)

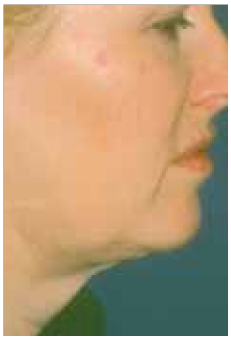
Pre-op Post-op

Some individuals are troubled at an early age with fullness under the chin and in the neck. This is often due, in part, to hereditary deposits of adipose [fatty] tissue in the submental area. Often, patients confirm that this appearance tends to run in their family and frequently is a characteristic of their father or mother.

If the bone structure in the neck is good and if the submandibular salivary glands are small, results of submental lipectomy can often be dramatic and postpone the need for facelift surgery. This procedure works best on young to middle-aged individuals who have good skin tone. Without good skin tone, the fatty tissue would be removed, but the skin tightening that occurs secondary to undermining tissues would not take place. Women can identify with this phenomenon. If a woman has a baby at the age of twenty, she regains her figure more easily and the stomach tissues flatten back to their pre-pregnancy state. However, if a woman has a baby later in life, the tissues do not easily recoil, and she may even need a tummy tuck. Much the same thing can happen in the

face. Liposuction often results in 10-20% improvement by removing the congenital fat pads in the area. Over the next 9-12 months following liposuction, the tissues that have been undermined tighten approximately 20%, giving even more improvement. However, if this tightening effect did not occur, the patient would be left with tissue laxity in the neck and would be a candidate for facelift surgery.

It is important for a patient to realize that a facelift removes fatty tissue, re-supports muscles, and removes excess skin in the neck, cheek, jowl, and lateral temporal areas. The neck lift removes fatty tissue, resupports muscles, and removes some skin in the submental and neck area. A submental lipectomy only removes excess fatty tissue and relies upon the skin's ability to tighten itself. It is not a replacement for a facelift or a neck lift. However, dramatic results can be obtained with a minimal amount of discomfort and recovery time in appropriate individuals.

Pre-op Post-op

Surgery

An incision approximately the width of a pencil is hidden in the crease under the chin and behind each earlobe. Small, specially developed suctioning instruments undermine the skin to the neck and remove, by suction, the excess adipose [fatty] tissue. The incisions are then closed with dissolvable sutures. A stockinette-like elastic dressing is applied to the neck area for 24 hours and is then worn at night for the next month.

Recovery

Ice compresses are applied to the neck area for approximately 24-48 hours after liposuction surgery. Individuals are instructed to sleep with their head elevated approximately 30 degrees for two weeks following surgery and not to lift objects heavier than 5-10 lbs. for the first week after surgery. Most individuals can return to work within 48 hours, but have slight bruising in the neck area. This can usually be camouflaged easily with makeup or by wearing high-collared shirts or turtlenecks. In some cases, additional improvement in the jowl area can be obtained with liposuction. In these patients, a small incision is made inside the mouth and a special instrument is used to suction away excess fatty tissue, which can herniate from the buccal space into the jowl area. These individuals need to stay on a liquid diet for five days after surgery to avoid

food particles irritating the incisions. There is a minimal amount of discomfort with liposuction surgery. It is usually done under a twilight anesthesia on an outpatient basis.

Rhinoplasty (Nasal Surgery)

Pre-op Post-op

Nasal surgery is one of the most frequently performed surgeries. It is done not only for appearance, but also to improve breathing. The nose has multiple growth centers and does not mature until we reach puberty. Childhood trauma can damage these growth centers, with the end result being a crooked nose (both internally and/or externally). At other times, nasal characteristics may be an unwanted ethnic or family trait obtained through inherited genetics. Still other times, nasal aberrations may be directly related to more recently documented injury. Unfortunately, increased athletics, and increasing emphasis on keeping physically fit have also been associated with an increased number of nasal injuries. Fortunately, facial plastic surgery can often correct this problem.

Pre-op Post-op

Pre-op Post-op

What You Will Look Like

The nose is an individual characteristic. A nose that looks natural needs to be proportional for the face. The nose that looks right for the attractive model in a magazine may not look right on your face. It may not be the correct proportion for your face. The nose must be symmetrical and proportional.

At the distance between the tip of the nose and the base should equal the distance from the base to the upper lip. The angle between the nose and the upper lip (nasolabial angle) should be between 100-110 degrees. The base of the nose should fall within the plane of two lines drawn perpendicular from the inner aspect of each eye.

Anatomy

The nose consists of bone, cartilage and skin. The aesthetic improvement that can be obtained is limited to a large extent by the strength, tone, and shape of these tissues. Just as an artist is limited by the quality of the materials he or she uses, so is the cosmetic surgeon limited by the patient's tissues.

Internally, one needs to think of the nose as an A-framed house with the middle partition (the septum) dividing it into equal parts. Unfortunately, often this middle partition is not straight. If it is deviated, widened, or thickened, it results in airway obstruction. This is the so-called "deviated septum."

The lining of the nose is not straight. There are three projections on each side of the nose called turbinates. They provide more surface area for the nose to perform its functions. The function of the nose is to warm the air, increase humidification of air, and filter out impurities. The turbinates can become enlarged abnormally due to trauma or inhalation allergies. If they enlarge too greatly, they can obstruct the ostia drainage passages from the sinuses. This results in sinus headaches or infections. Many times, the turbinates will swell at night when one is reclined. Mouth breathing, snoring, sore throats in the morning, chronic nasal congestion, posterior nasal drainage, nose bleeds (epistaxis) can all be signs of nasal deformity which may be decreased or eliminated with nasal surgery.

Surgical Technique

All surgical incisions are made inside the nose. On occasion, an incision is made at the base of the nose or at the base of the nostrils. However, this is rarely done, and these incisions are usually undetectable when fully healed.

The mucosal lining over the septum is elevated using special instruments. The deformity and irregularity of bones and cartilage are identified and the bones and cartilage are repositioned to improve the nasal airway. In most cases, "packing" the nose following surgery can be avoided by using dissolvable sutures, which precisely reposition tissues. While this technique may be more difficult than packing the nose, it is much more accurate. It also avoids the pain and pressure associated with packing and the pain of

having packing removed. Through small incisions made inside the nose, the external abnormalities can be contoured. Small instruments are used to make incisions in the bones and cartilage to reshape enlarged or twisted structures. Special dressings are used to remold and reshape the nose. Dissolvable sutures are used to close the incisions so no sutures have to be removed. A nasal dressing of tan colored tape and a metal splint are worn for approximately one week to help mold the bones and cartilage into the desired shape.

Recovery

It is important to minimize the amount of swelling and bruising following surgery. For this reason, a dressing that covers the eyes and nose is commonly applied for the first four hours following surgery. This helps to greatly reduce swelling and bruising post-operatively. After the dressing is removed, ice compresses are applied continuously for the next 48 hours.

At the end of one week, the external nasal dressing is removed without discomfort to the patient. A special liquid is applied to the dressing, which loosens the tape allowing it to be easily removed. At this point, most individuals will see a significant improvement in their nose. The nose will still be swollen and there will be significant changes as the nose fully heals over the next twelve months. Most individuals see a positive change at one week following surgery. However, some individuals may have swelling and bruising which persists for several weeks. While it takes one year for the nose to fully heal, after three to four months, significant trauma is needed to distort the alignment of the nasal structures. For this reason, it is recommended to avoid contact sports, diving, and other activities, which could easily result in nasal fractures for the first 3-4 months after surgery.

It is important to avoid wearing glasses of any kind for the first four to six weeks after surgery. The constant, gentle pressure of glasses can result in movement or repositioning of the nasal bones. For this reason, individuals who do need to wear glasses must wear a protective splint to avoid pressure over the healing nasal bones.

Following nasal surgery, it is necessary to sleep with the head elevated approximately 45-degrees for two weeks. Sleeping with the head higher than the heart helps to markedly decrease the amount of swelling and bruising. Lifting more than five to ten pounds for the first two weeks is also prohibited following surgery. During this time frame, the patient should refrain from engaging in any activity that causes the heart rate to accelerate. This could result in more swelling and increase the possibility of developing a nosebleed. Blowing the nose for the first two weeks following surgery should also be avoided. If one has to sneeze, they should sneeze with their mouth open to minimize the irritation to the healing nasal tissues.

Following surgery, ice compresses are used for the first 48 to 72 hours. Ice packs appear to be too heavy and do not work into the creases. For this reason, ice water-soaked washcloths, folded into an inverted-V configuration, appear to be ideal. They are easily

draped over the nose and contoured over these areas. They should be used continuously for maximum results. A drip pad or moustache dressing is commonly applied after surgery. This is simply a gauze square, which is used to collect any drainage from the nose. It is common to have to change this several times during the first few hours after surgery. After several days, a drip pad may not be necessary. However, if one continues to have drainage and requires dabbing the nose with a facial tissue, one should wear the drip pad as continued manipulation at the base of the nose will hinder healing. Individuals can fly several days after surgery. However, they should avoid scuba diving for 2-3 months after nasal surgery. This is in order to avoid the possibility of pressure changes causing the nose to bleed and also due to the fact that the face mask causes pressure over the healing nose.

It is normal to have some swelling and congestion internally following nasal surgery. This usually persists for several weeks. While many individuals feel that they have markedly improved airway the first several days after surgery, it should continue to improve with time as the nose fully matures. Our final result both internally and externally is not achieved until 12 months following surgery. During the postoperative convalescence, various types of oral antihistamines and nasal sprays may be used to help accelerate the healing process and dissipate nasal congestion.

Additional Procedures

Often, individuals desire to have additional cosmetic surgery performed at the same time as nasal surgery. This allows a reduction in time away from work and social activities by combining the convalescence of two or more procedures into the same time frame. It also results in some cost reductions by avoiding duplicate operating room facility fees, lab test fees, supply fees and medications.

Most facial plastic surgical procedures can be performed in conjunction with rhinoplasty surgery. However, dermabrasion, laser resurfacing, and chemical face peeling cannot. In those procedures, patients are asked to frequently shower in order to use the water from the shower to avoid the formation of scabs and crusting on recently peeled tissues. With nasal surgery, a dressing is applied to mold and shape the nasal tissues for the first week after surgery. Frequent showering might result in displacement of the nasal dressing and should therefore be avoided. However, blepharoplasty surgery (eyelid tuck), facelifts, cheek and chin implants, and hair transplant surgery can all be performed in conjunction with nasal surgery.

Mentoplasty (Chin Implant Surgery)

If our chin is in the proper alignment and profile, a line perpendicular from the forehead should touch the upper lip and chin. If the chin recedes behind this line, significant improvement in facial symmetry can often be obtained with a chin implant [mentoplasty].

Correcting a receding, or retrognathic as it is termed medically, chin can also help us age more gracefully by reducing laxity in the submental and neck area. This also reduces the tendency for laxity in the folds that downturn at the corners of the mouth.


Pre-op Post-op

Mentoplasty is often recommended in connection with nasal plastic surgery. Too great of a recession of the chin, particularly when accompanied by a slanting forehead, will cause the facial features to taper to a point if only nasal surgery is done in these particular cases. Chin augmentation provides a pleasing symmetry, which makes the face more proportional.

Chin implants are strictly cosmetic, creating the illusion that the chin has grown to its normal or expected position in relation to other facial bones. It will not affect occlusion [the way our teeth come together]. If a patient has TMJ [jaw joint problems], or a history of dental occlusion problems, they should speak with their dentist. These individuals may require more extensive orthognathic surgery. This type of surgery is usually done by an oral-maxillofacial surgeon. We can assist you in appropriate referral, if necessary.

Surgical Technique

Commonly, chin implants are placed in an incision made under the chin. We prefer to use an incision made intraorally between the lip and gumline. This incision heals very quickly and leaves no sign of surgery.
A variety of implants are used for chin augmentation. A medical-grade solid or mesh implant is used to increase skin projection by tapering the soft tissues overlying the mandible [chin bone]. This type of material is used to make artificial heart valves, reconstruction about the eye, and for many other purposes in surgery. It has been used in thousands of cases and has a high record of safety and satisfaction. After a short time has elapsed, it becomes practically the same consistency as the tissues become incorporated into the implant.

Surgery is done under twilight anesthetic and takes less than an hour to perform. An incision is made between the lip and the gum. The implant is precisely positioned over the hypoplastic [underdeveloped] part of the mandible. The overlying soft tissues are closed in multiple layers with dissolvable sutures. A flesh-colored tape dressing is applied externally to reduce swelling and to hold the new implant in its proper position.

Recovery

Patients need to stay on a liquid diet for one week in order to avoid food particles irritating the healing incisions. One needs to avoid manipulating the incision line with their tongue or toothbrush. For the first week, teeth may be cleaned with baking soda and a washcloth. One also needs to sleep with the head elevated approximately 30 degrees for the first 1-2 weeks in order to minimize swelling. Cold compresses are applied to the chin for the first 48 hours after surgery.

The tape dressing is removed after one week. Significant improvement is usually noted at that time. Patients must realize that there is still some swelling and decreased sensation in the chin that will resolve in the coming days.

Some individuals, in addition to having a receding chin line, also have fullness in the neck and chin area due to hereditary deposits of adipose [fatty] tissue. In these individuals, significant improvement can be obtained by combining a chin implant with liposuction of the neck [see liposuction section].

With chin augmentation, one must be willing to accept certain risks that may occur when implants are used. Although rare, one must accept the fact that there can be infections, rejection, reactions, irritation, paresthesia, swelling, and discoloration.

This procedure carries with it a high success rate and, in most cases, adds the "finishing touch" when reconstructing facial harmony.

Malar Implants (Cheek Implant Surgery)

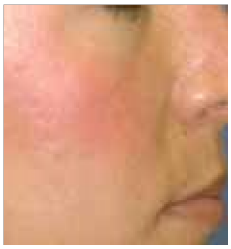
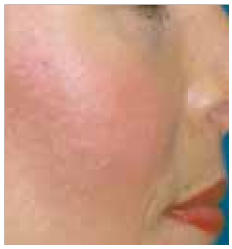
Pre-op Post-op

High cheekbones have long been considered a sign of beauty, which helps contribute to facial angulation and the classic "almond-shaped" face. Cheek implants can help add definition and angulation to the face, which helps improve facial harmony and symmetry. In addition, implants can help decrease tissue laxity in the crease, which runs between the nose and the corner of the mouth [buccolabial fold].

Some individuals have flattened cheekbones, which provide no contour to the face. As one ages and develops a downward displacement of tissues in the jowl area, the lack of cheekbone prominence becomes even more pronounced. In these individuals, malar augmentation provides a pleasing aesthetic contour.

Sub-malar augmentation is used to enhance weakness in the mid-face area. This is frequently noted in men and women without substantial adipose [fatty] deposits in their facial area who seek a fuller look for their face. This is frequently seen in individuals who are long-distance runners.

Cheekbone augmentation may also be necessary in individuals who have suffered facial trauma and have asymmetries in the mid-face area, which can be corrected with augmentation.

Pre-op Post-op

Surgical Technique

Malar or sub-malar surgery is done under twilight anesthesia. A medical-grade solid implant is used to increase skin projection by supporting the soft tissues overlying the malar bone. This material is used in the construction of artificial heart valves, for reconstruction around the eyes, and for other surgical purposes. It has been used in thousands of cases and has a high record of safety and satisfaction. After a short time has elapsed, the patient's body tissues become incorporated into the implant and secure it into proper position, making it extremely difficult, if not impossible, to detect.

An incision is made in the mouth hidden in the upper lip above the gumline. There is no visible scar. Dissolvable sutures are used.

Recovery

A flesh-covered dressing is applied externally to reduce the swelling and to hold the new implant in its proper position. The patient needs to stay on a liquid diet for approximately one week in order to avoid food particles irritating the intraoral incisions. The patient needs to sleep with head elevated for the first two weeks following surgery to minimize swelling. Cold compresses are applied to the cheekbone area for approximately 48 hours after surgery.

The tape dressing is removed on the fifth to seventh day following surgery. Significant improvement is usually noted at that time. Patients realize that there is going to be some swelling and decreased sensation over the cheekbone area, which typically resolves in the coming days.

Although rare, the patient must accept the fact that, as with any implant, there is the potential for infection, rejection, reaction, irritation, paresthesia, swelling, bruising, and asymmetry. However, this procedure carries a high success rate and in most cases, significantly accentuates facial harmony.

Otoplasty (Ear Tuck Surgery)

Otoplasty is the name given to the procedure used to "pin back" or reposition protruding ears. This deformity causes deeper emotional scarring than is generally realized even by the parents or friends of individuals who have this congenital auricular deformity. Because visual and psychological improvement following this operation is dramatic, it is rewarding to the patient and the doctor.

In children, the ear is 90% of its normal size by age 5 or 6. Otoplasty surgery is usually recommended before or near the time that a child enters school in order to avoid teasing and ridicule by classmates.

Pre-op

Post-op

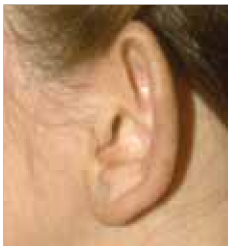
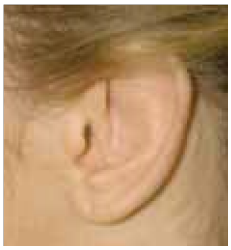
Surgical Procedure

In younger children, general anesthetic is utilized. In adults, "twilight" anesthesia is used. In both children and adults, the laser is generally utilized in order to minimize swelling, bruising, and decreased postoperative discomfort. An incision is made in the crease behind the ear. Excess cartilage and soft tissues are removed, and the ear is contoured into a more normal position utilizing special suturing techniques. Dissolvable sutures are used to close the incision, which is hidden in the crease behind the ear. A turban-like dressing is applied to cover the ears immediately after surgery. This is removed the following morning.

Recovery

The otoplasty dressing is removed the morning after surgery. The patient then wears a headband over the ears while sleeping and during physical activity for the first six weeks

after surgery. Patients are requested to sleep with their head elevated for two weeks and to refrain from vigorous physical activity for the first seven days following surgery. Ice compresses are usually applied for the first 48 hours following the procedure. Most patients find that they can return to work, school, and other normal social activities within the first 5-7 days after surgery.

Pre-op Post-op

Most individuals see significant improvement immediately following surgery. However, there will be some swelling that will gradually decrease over the next several weeks. It is important for patients to realize that no two ears are exactly the same and that this asymmetry is normal and to be expected.

The results of otoplasty surgery can be dramatic and are permanent. It is a procedure that is performed equally on men and women and done as frequently on adults as it is on children. Surgery is almost always performed on an outpatient basis.

Facial Implants


Pre-op Post-op

Gore-Tex

New developments in facial implants center around lip augmentation. Gore-Tex is a synthetic implant which has been used for years in cardiovascular surgery and renal transplant surgery to serve as a conduit to connect organs to their arterial supply and has been used in general surgery for soft tissue augmentation in regard to revision hernia repairs. In recent years, it has had increased popularity as a soft tissue implant in the face because of its soft contour and minimal complications.

Recently individuals have been utilizing Gore-Tex for augmentation of the lip. Small strips of Gore-Tex are inserted in the loose connective tissue under the mucosal surface. Over the next 90 days, fibrous tissue capsule forms which provides additional augmentation and contouring, serving to further insulate the implant. While not

specifically FDA approved for this purpose, Gore-Tex can be used for lip augmentation as an "off-label" use. It should be noted that Gore-Tex is FDA approved for use in the buccolabial or nasolabial folds, for nasal reconstruction, and for facial reconstruction in the cheek and forehead areas. Many physicians therefore have concluded that it can be used for lip augmentation. The procedure consists of applying a topical cream to the lip for topical anesthesia approximately one to two hours prior to the procedure; Xylocaine or Novocain is then injected for additional anesthesia. Following the procedure, tape is placed around the lips overnight to help minimize edema (swelling). The patient needs to stay on soft foods for one to two days and keep ice compresses on the lips for the next 24 hours. The patient is placed on antibiotics prophylactically the day before surgery and continues on them for approximately one week following surgery. With any type of implant there is always the potential for infection, rejection, irritation, and reaction. That appears to be less than 1%.

Gore-Tex can also be used to augment the buccolabial or nasal labial fold. The implant is introduced through a needle and threaded underneath the skin. The entrance and exit sites are closed with a small dissolvable suture. In deep folds, several augmentation procedures spaced at least three months apart may be necessary. The advantage of this technique is that the implant does not dissolve and there will be additional augmentation due to the body's fibrous tissue being stimulated to form around the Gore-Tex implant.

Microlipo Injections

Microlipo injection is an advent of body liposuction. Fat cells are extracted and re-implanted in other areas of the body. Fat cells are very fragile and the "take rate" is approximately 60%. For facial microlipo injection, a topical anesthetic cream is applied over the stomach or thigh area, one to two hours prior to the procedure. Local anesthesia is injected [tumescent technique]. Following this a syringe is used to remove fatty tissue by an aspiration method which is then washed and reinjected into the buccolabial fold or the lip area. A dressing is applied and removed the next day, individuals need to apply ice compresses to the area overnight and minimize the amount of movement to the area for the first 24-48 hours after the procedure. At 6 to 8 weeks, the area is re-evaluated and may be able to be additionally improved by a second procedure at that time. This is due to the fact that the first procedure stimulates increased blood flow into the area, which facilitates "take" at the second procedure.

Pre-op

Post-op

Additional techniques, which have been used for augmentation or to fill in the buccolabial folds, have been to use injectable collagen and dermal graphs. Dermal graphs are obtained by removing the epidermis from excised tissue such as tissue excised with

the facelift procedure. This can easily be done with the carbon dioxide laser. The dermis is then implanted in the sub-dermal tissues. The take rates have varied between 30% and 60% in various studies. The problem has been the fact that the oil glands and hair follicles lie deep in the dermis and are not removed. For that reason, cysts can develop in the dermal implant resulting in localized infection and a poor “take rate.”

Dermal Fillers

Dermal fillers are frequently utilized for augmentation purposes in the face. There are a variety of substances, which are used for this purpose. In most cases, a skin test is not necessary.

The dermal fillers can be injected into the upper layers of the tissue for augmentation and elimination of fine lines around the mouth and in other facial areas.

A topical anesthetic cream is usually applied fifteen to twenty minutes prior to treatment. The dermal filler is then injected into the area of facial wrinkling or the areas that are needed for augmentation. Tape and cold compresses are usually applied to the area for one to two hours after the procedure. Individuals are usually able to assume normal social and work activities later that same day.

Dermal filler substances are temporary and eventually absorbed by the body. However, it should be noted that some individuals might absorb injected substances within a matter of weeks or even days while others may last months to even years. Results can vary significantly from individual to individual.

The advantage to dermal filler injections is that they can be performed very quickly, and one can resume normal activities almost immediately. While the results are temporary, dermal filler injections may postpone the need for other surgical procedures, move into the areas for augmentation.

Aging skin changes can result in fine wrinkles and “expression lines” that detract from one’s appearance. There are a variety of dermal fillers that can be injected into the skin to eliminate or markedly reduce these aging changes. A local anesthetic cream is often applied for fifteen to twenty minutes prior to the treatment to markedly reduce, or virtually eliminate, the skin prick sensation associated with these treatments.

There are a variety of dermal filler substances that can be used to plump up the lips and reduce fine facial lines that are often concerning to patients. Based upon one’s treatment desires, there are a variety of advantages and disadvantages associated with each type of specific dermal filler substance. Depending upon your examination, your treatment desires and your specific medical history, the doctor will determine with you the best plan for your individual situation.

Skin Rejuvenation

Skin rejuvenation procedures improve the overall appearance of the skin by achieving a refreshed skin appearance and restoring elasticity. While they do not have the same effect as surgery, they can often prolong the time until a facelift is needed. To clarify, surgery takes away "sags and bags," while skin rejuvenation takes away "wrinkles." Today there are a wide variety of techniques available that allow us to tailor a skin rejuvenation program specifically designed for you— one to match your skin type, lifestyle, and desires. In customizing a skin rejuvenation program to meet an individual's needs, many factors must be considered. Among these are type of skin, general health, and lifestyle. Each type of skin rejuvenation technique varies with the length of recovery time necessary and the frequency with which they need to be repeated.

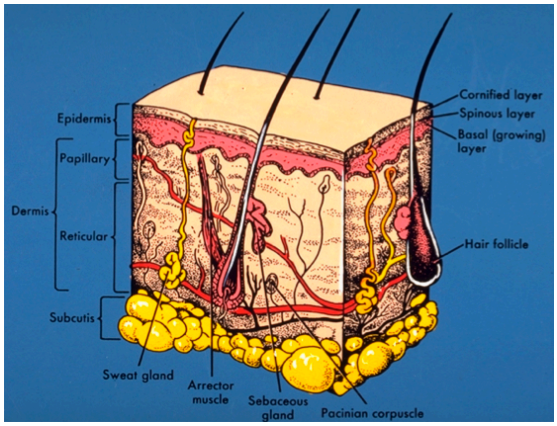
Aging Process

In order to understand how skin rejuvenation techniques work, it is essential to understand the aging process.

As we age, a number of things happen. Our skin loses moisture and elasticity. Fat redistributes itself, muscles and skin become more lax, and bones actually start to resorb. Wrinkles [rhytids] are the first signs of this aging process. Skin folds or "bags" are the more advanced signs, which actually require removal of the excess skin.

Aging Skin Changes

During the aging process, the top layer of the skin [stratum corneum], which is a layer of dead skin cells, builds up and thickens. When this happens, our skin can develop a sallow look and small "expression lines" can develop. In addition, there is a gradual breakdown of the collagen and elastic fibers in the deeper layers of the skin. Sun exposure or "photoaging" can dramatically increase the breakdown of elastic tissues and lead to increased skin wrinkling.



Skin Rejuvenation Techniques

Essentially, skin rejuvenation treatments can be divided into three types—light, medium, and deep. Skin rejuvenation techniques may include the use of topical creams called peeling agents, which are of various strength and types. The difference in strength and type allows for penetration to different levels or layers in the skin. The dermis of the skin is the building block layer, which is made up mainly of collagen. It is divided into two parts – the more superficial "papillary" dermis and the deeper "reticular" dermis.

If wrinkles or aging changes are confined to the top layers of the skin, they can be totally removed through these skin rejuvenation techniques. If they extend down into the deeper dermal layers, we cannot totally remove them, but can only obtain improvement. This improvement can often be dramatic. Obviously, the deeper into the dermis the aging changes extend, the deeper the skin rejuvenation treatments need to go. And that means a longer recovery or convalescent process.

Another type of skin rejuvenation technique involves the use of lasers. Recent technological advancements have resulted in the development of special high-energy carbon dioxide lasers and Erbium lasers, which use light energy instead of chemicals to stimulate changes in the upper skin layers.

"Light" Rejuvenation Techniques

"Light" rejuvenation techniques are actually refreshing to the skin. They remove fine wrinkles and improve skin texture and tone. These techniques usually consist of a combination of various creams and lotions, which can be used daily. The creams and lotions remove the dead cell layer of the skin [stratum corneum] and cleanse the pores. They may also stimulate epidermal resurfacing and induce collagen formation in the very superficial layers of the dermis. The advantages are that they can be used daily and there is no convalescent period. The disadvantages are that they only refresh the skin and remove the very fine wrinkles. They will not remove the deep wrinkles.

Types of "Light" Peels

Alpha-hydroxy acid peels [glycolic acid]

These are naturally occurring fruit acids that are exfoliants. They remove the top, dead-cell layer of the skin. They also allow moisturizers to better penetrate, hydrating the skin, and in this way, make wrinkles less prominent.

Glycolic acid is the most commonly used alpha-hydroxy acid peel. It is frequently a component in over-the-counter skin care preparations, but usually in low concentrations [less than 5%].

A 10% concentration of glycolic acid is commonly prescribed. It is buffered to change the pH balance so that it does not sting or irritate the skin. However, a very small percentage of people may not be able to use glycolic acid because their skin is too sensitive.

Normally the glycolic acid lotion is applied to the face and neck in the morning. After approximately ten minutes, makeup may be applied over the area. Glycolic acid may be prescribed in combination with other ointments. Glycolic acid should not be applied to open cuts or irritated skin.

Retinols

Retinols are vitamin A derivatives that have been used for years to treat teenage acne. It is only FDA-approved for that use. However, over the years, many doctors have found it to be effective in removing superficial skin lesions, sun damaged areas, and removal of fine wrinkles. Like glycolic acid, Retinols remove the dead-cell layer of skin; but in addition, they stimulate epidermal turnover, which speeds regeneration of the skin. Over time, Retinols may stimulate collagen production in the upper layers of the dermis.

Retinols can be irritating to the skin when first used. This is a medical condition called "retinoid dermatitis." By starting out gradually and increasing concentration over time, this irritation can be greatly reduced, if not totally eliminated. The doctor will prescribe a concentration based on the individual's skin type.

A pea-sized amount of Retinol is placed in each of the four facial quadrants and then worked into the skin. This is usually done at bedtime. Initially, we recommend applying every other night and then gradually increasing to a daily application. If irritation develops, the dosage would be cut back to every other day or would be diluted with moisturizer. Because these Retinol derivatives remove the dead-cell layers of the skin, which can act as a filter, skin may burn more easily. For this reason, you may need to use sunscreen. If one is going to be out under intense sun, temporarily stopping use of the Retinol may be advisable. Retinol may also cause skin to become drier; so moisturizers may need to be used as well.

Topical Vitamin C [ascorbic acid]

Vitamin C is especially formulated as a lotion or cream that is applied to the skin to reduce lines around the eyes, mouth, and forehead. It also aids skin in appearing smoother, more radiant, and firmer. It helps protect against the harmful effects of UVA rays. Application for topical Vitamin C is new, but research in the use of Vitamin C has been ongoing and extensive.

Topical Vitamin C plays an important part in protecting your skin against ultraviolet light. When the skin is exposed to Vitamin C, up to two-thirds of the Vitamin C normally found in the skin is destroyed. Because Vitamin C is not synthesized in the body, it must be provided for by diet. The new topical Vitamin C provides more than twenty times the amount of Vitamin C found in normal skin. While Vitamin C is clearly not a sunscreen, it can help repair some of the damage caused previously by the sun as well as prevent further sun damage. In addition, it signals the body to begin synthesizing collagen. This results in a smoother, firmer finish to the skin.

Because of its potency, topical Vitamin C should be used only once a day, either in the morning or in the evening. It should be applied to clean, dry skin. After applying the Vitamin C, allow it to sit for approximately one minute before applying moisturizer or makeup.

Serial Chemical Peels

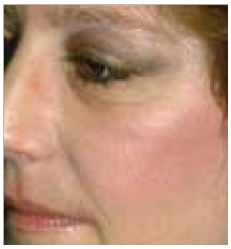
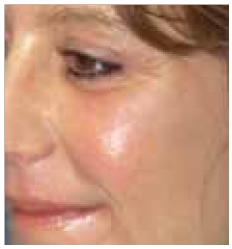
These peels consist of 4-6 treatments of 10% trichloroacetic acid or 70% glycolic acid applied to the skin at two-week intervals. This can generally have the same effect as one year's use of Retinol in some individuals. Serial peels are used for individuals who want to "jump start" their skin rejuvenation program or on people who are unable to use Retinol, either because it is too irritating or they are unable to work it into their schedule.

The process is a simple one. Patients present to the Center and remove makeup. The peel solution is applied to the skin with a cotton-tipped applicator. Some patients experience a slight tingling, but most have no discomfort. Cool-water compresses are then placed over the face to deactivate the solution. After this, the patient can then apply makeup and are able to leave and return to normal activities. No recovery time is necessary, and the patient can immediately resume their normal daily activities. Over time, this can gradually develop some improved texture and a refreshed appearance. This peel can be used in combination with glycolic acid, Retinol, and topical Vitamin C.

"Medium" Chemical Peels

A medium peel is used to treat mild acne, mild skin textural changes, mild color changes [age spots], and mild wrinkling. They usually require 7-10 days to recover [before one can wear makeup]. There is no permanent pigmentation change in the skin, as can be seen with deep chemical peels. Medium chemical peels may need to be repeated every 3-4 years. They are frequently utilized in men. TCA 35% or Jessner's +35% TCA peel is used in the medium peel process. These are done under twilight anesthesia on an outpatient basis. Vaseline is applied to the area following the peel, and the patient is able to return home that evening. For the next seven days, they keep the peeled area moist with Vaseline and frequent showers. There is virtually no discomfort associated with the healing process. Most individuals are able to apply makeup and return to their normal activities at seven days. The skin may have a reddened appearance, like mild sunburn, which subsides over the next several days. It can easily be covered with makeup.

Medium-depth peel

Pre-op Post-op

Deep Rejuvenation Techniques

Phenol-based Chemical Peels

Phenol-based chemical peels are considered “deep” peels. They are the strongest type of peel and produce the most dramatic changes. They are used to treat deep wrinkles or “smokers’ lines” and pigmentation changes. In addition, they provide tightening and rejuvenation to the skin. Deep chemical peels usually provide significant improvement with only one treatment.

Deep Chemical Peel Mid-Face

Pre-op

Post-op

One of the disadvantages of the deep phenol-based chemical peel is that it tends to “lighten” the skin. It is important to understand this because there may always be a need to cover these areas with some type of makeup. This lightening of the skin would be seen in the color difference between peeled and non-peeled areas. For this reason, men would not be good candidates for this type of peel. The best candidates would be females with light skin. Less appropriate candidates are those with darker or black skin.

The procedure is usually done under twilight anesthesia if the full face is treated or under local infiltration if regional areas such as the lower eyelids or perioral area are treated. The peel solution is applied to the area with a cotton-tipped applicator. Following treatment of the area, a moist dressing technique is utilized. A thick layer of Vaseline is applied to the peeled area. The patient is then taken to recovery and later released. A mild burning sensation may be noted for the first 3-4 hours following the procedure, but can easily be controlled with oral medications. There is moderate to significant swelling that can accompany phenol-based chemical peeling. Individuals apply Vaseline and shower 3-4 times a day to minimize crusting and to facilitate epithelial rejuvenation. The skin surface is usually completely re-epithelized within 7-10 days. At that time, the skin has a reddened appearance; makeup can usually be applied. The skin may continue to be red for 6-8 weeks. During this time, the redness is usually covered easily with makeup. The skin then gradually fades back to the normal skin color or potentially a lighter color.

The phenol-based chemical peel is particularly beneficial for treating individuals who have areas of hyperpigmentation around the eyelid area. It can provide an aesthetically favorable lightening effect as well as removing fine wrinkles and providing a

"tightening" of the skin. This peel is commonly performed in conjunction with blepharoplasty surgery.

Deep Chemical Peel Perioral

Pre-op

Post-op

It is important for patients to realize that all wrinkles cannot be removed. Some individuals can obtain dramatic improvement, but results can vary from individual to individual.

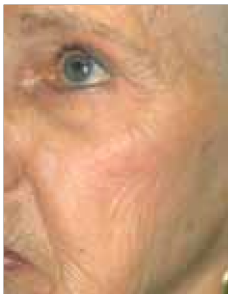
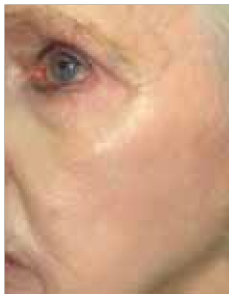
Laser Skin Resurfacing

Pre-op

Post-op

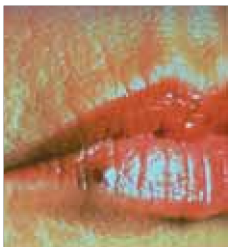
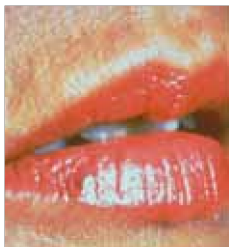
Laser resurfacing is a relatively new technique, in which light energy is used to remove the most superficial layer of skin [epidermis], and actually stimulates increased collagen in the deeper layers of the skin [dermis]. The high-energy carbon dioxide and erbium lasers have been developed, which are the primary lasers used for skin resurfacing. The wound healing mechanism and recovery time is very similar whether laser resurfacing or traditional phenol-based chemical peeling is performed. In one case, light energy is used; in the other case, various chemicals are utilized to achieve rejuvenation of the skin. Laser resurfacing is usually done on individuals who are concerned with deep wrinkling around the mouth or eyelid area as well as general photoaging and degenerative skin changes over the entire face. While not all wrinkles can be removed, significant and dramatic improvement can be obtained in selected individuals. The advantage of the laser over the phenol-based chemical peel is that there is less chance of pigmentation changes to the skin, and the degree of redness following surgery may be significantly less.


Pre-op Post-op

Pre-op Post-op

Laser resurfacing is also frequently used to treat scars. Laser resurfacing performed at 4-8 weeks after a facial laceration can stimulate wound healing and, in many cases, dramatically improves the aesthetic appearance of the area. Laser resurfacing may provide significant improvements in older, depressed scars in selected patients.

Pre-op Post-op

Laser Technique

With the erbium laser, a topical anesthetic cream is applied to the skin 20-30 minutes prior to the procedure. Laser resurfacing is then performed over selected areas. The patient applies Vaseline over the area and washes the area 4-6 times a day for the next 3-5 days. Most patients find that, by the third to fifth day, they are able to apply makeup over the reddened skin. The redness usually fades away within the next week. The advantage to this technique is that the patient recovers more quickly and can resume normal social and work activities in approximately one-third the time of traditional chemical peels or laser resurfacing techniques. The disadvantage is that 1-3 treatments

are usually required spaced at 1-3 month intervals in order to obtain the maximum improvement for the deepest wrinkles. There is virtually no pain associated with this technique, and minimal if any pigmentation changes to the skin are noted, in contrast to other rejuvenation techniques. This makes this laser resurfacing procedure very desirable for men and those with busy schedules and limited recovery time.

The carbon dioxide laser scanner is used for facial rejuvenation. With this technique, a topical anesthetic cream is also applied to the skin approximately twenty to thirty minutes before treatment. Because the treatment is more intense, local anesthetic is frequently needed to anesthetize the areas to be treated. This procedure can be done with a minimal amount of discomfort. Some individuals prefer to have "twilight" anesthesia. If the full-face area is treated, twilight anesthesia is usually utilized. Following the procedure, the patient applies Vaseline to the treated areas and washes their face 4-6 times a day. There is slightly more swelling and crusting than with the erbium laser. Most individuals find that they can begin to cover the reddened areas with makeup at seven days following treatment. Redness may persist for several weeks following surgery, but can usually be concealed with makeup. While there is a longer recovery time and slightly more erythema [redness] associated with this procedure, the carbon dioxide laser usually requires only one, possibly two, treatments to obtain the desired result, in contrast to multiple treatments with the erbium laser.

In contrast to phenol-based chemical peels, there is minimal, if any, coloration change to the skin following carbon dioxide laser treatment.

As with any skin rejuvenation technique, it is important for patients to avoid increased sun exposure for the first several months following their procedure. We recommend that individuals apply a sunscreen for the first 3-4 months following any skin rejuvenation procedure, whether it is a chemical peel or laser resurfacing technique.

Vascular Lesions

Nasal Hemangioma

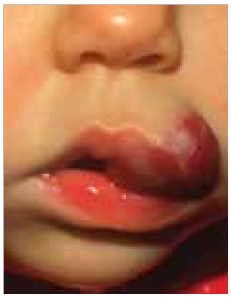
Pre-op Post-op

Several lasers can be used for the treatment of birthmarks or other vascular lesions such as hemangiomas, telangiectasias, and angiomas. They can also be used to treat scars and

to improve skin texture in patients with multiple dilated vessels or skin conditions such as rosacea. The benefits of treatment from the tunable pulsed-dye laser and the photoderm laser are that there is no scarring, no pain, and a 5-10 day recovery period. However, multiple treatments may be needed to achieve the desired result.

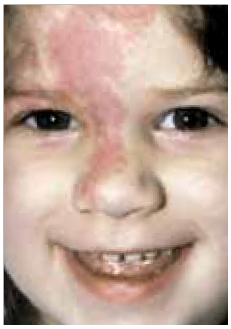
If an individual has some dilated vessels [telangiectasias], a single treatment may provide complete elimination. Hemangiomas and port-wine stains may require multiple treatments. In most cases, a topical ointment is applied 15-20 minutes prior to the procedure for anesthesia. The treatments are virtually painless and are done on an outpatient basis with minimal recovery time. For the first 5-7 days following treatment, the patient keeps an ointment, such as Bacitracin or Vaseline, over the area. They can then begin to apply makeup over the area. With some treatments, a gray color may persist for 1-2 weeks. At other times, a mild redness may persist for several days. Multiple treatments may be required to remove the vascular abnormality.

Lip Hemangioma




Pre-op Post-op

Wine Stain




Pre-op Post-op

Scars and Blemishes

The appearance of unsightly or disfiguring scars or blemishes may be improved by well-planned and carefully executed surgery, but there are some important facts patients contemplating such procedures should know.

“Surgical treatment” for deep scars implies that incisions may be made to excise the scar or blemish. Each incision made into the skin, regardless of where it is placed, who makes it, for what purpose it is made, or whether it is deliberate or accidental, heals in the same manner as any other cut; that is, it produces scar tissue, nature’s method of healing. This simple fact is frequently forgotten or ignored by some people who think that a “plastic surgeon” can make an incision and leave no visible scar and that he or she can, in fact, do away with previously existing scars.

In reality, the surgeon’s goal is to replace an unsightly or disfiguring scar with a better scar, one which is a fine-line, more level and blends with the surrounding surface, approximates the color of the adjacent skin, and which causes no contracture or pull on the surrounding structures. In short, one which is as inconspicuous as possible. The actual healing of the scar and its final appearance are dependent on many factors, one of which is the patient’s own healing capability.

Possibly conditioned by what they see on television and in the movies, many people expect this final result immediately and become disappointed and troubled because they have to await “maturation” of their scars; this is the continuing change in appearance which scars go through until they are “mature,” that is, until they reach a stage where they will undergo no further change.

Maturation of scars takes from 12-18 months in most cases, sometimes longer. Initially, a freshly repaired scar usually looks very good. Then it becomes reddened and, possibly somewhat raised above the surrounding skin and frequently is hard in consistency. Gradually, the hardness and redness lessen and disappear; leaving a softer scar that is more level with and somewhat paler than the adjacent skin.

Dermabrasion for Acne

Pre-op Post-op

Patients seeking scar or blemish revision, therefore, should be emotionally prepared to accept two things: first, removal will result in a further, though hopefully, much

improved scar since there can be no complete removal of all traces of scars. Second, the final appearance will not be evident for 12-18 months.

This brings us to another very important matter. Understandably, most people with recent scarring want repair immediately, if not sooner. The fact is that scar revision, except in selected cases, should not be undertaken too soon. The passage of time is the best, the kindest, and, in the long run, the easiest treatment to give to any scar of recent origin, since most will improve to some extent if given the time to do so. As mentioned above, it may take 12-18 months to reach its maximum improvement. Only after the scar has become soft and white is it "mature" and a decision regarding second stage revision may be delayed until this time has elapsed. However, scars which cause distortion of normal structures (for example, eyebrows, lips, eyelids, nostrils, etc.), those which spread widely or produce deformity by contraction, and "U" or "J"-shaped scars may be repaired early, since essentially no improvement in the basic problem can be anticipated as a result of the passage of time.

When treating a scar or blemish by excision, the surgeon makes every effort to place the line of incision as nearly as possible in or parallel to one of the normal crease lines of the face or body. Sometimes it may be necessary to change the direction of a scar so that it will approximate these lines. Excision of large unsightly scars or blemishes may require multiple operations over a period of time, shifting of surrounding tissue to fill the defect, or even skin grafting. Scar revision often requires at least two and frequently three or more procedures to obtain the best possible result.

Remember: Scars are unsightly because they may:

1. Be wide

2. Be longer than one inch

3. Cross natural creases or contour lines

4. Be elevated

5. Be depressed

6. Be a different color than adjacent tissues

Therefore, if a scar possesses the above characteristics, improvement in any of the conditions should make it less conspicuous.

Treatment

Scar revision surgery may be performed under a local anesthetic utilizing topical creams to anesthetize the skin, followed by injection of a local anesthetic, or under a twilight anesthesia. These procedures are usually performed on an outpatient basis. Following

surgery, special tape is generally used to support the skin edges. Great care is taken to reduce the amount of postoperative swelling to help improve the final aesthetic result. Obviously, instructions and recovery vary from individual to individual based upon the location and extent of the procedure performed. However, in most cases, individuals need to sleep with their head elevated for two weeks to reduce swelling, refrain from lifting or straining anything over 10-15 lbs. for the first seven days after surgery, and apply ice to the treated area for the first 24-48 hours following the procedure. Steri-tape supports are commonly used for 1-3 weeks following surgery. In many cases, laser resurfacing or dermabrasion may be utilized 4-6 weeks after the initial treatment to further accelerate wound healing and to improve the aesthetic appearance.

With scar revision surgery, follow-up care is extremely important. Various creams and lotions can be used to help "guide" the healing process. It is important to remember that multiple treatments, over a period of months, may be necessary in order to obtain the best possible aesthetic result. It is also important for patients to realize that we can never totally "erase" scars, but can only "improve" them.

Botox® (Neuromodulators)


Pre-op Post-op

Many people are concerned over "frown lines." When we frown for any reason, the tissue gathers between the eyebrows into a fold. For some, this results in a chronic furrow, or deep wrinkle, which produces a frustrated, angry look on one's face. It can be distracting to some and bothersome to others. In addition, some individuals will be concerned over increased wrinkling or "rhytids" in the forehead area and the deep "crow's feet" in the lateral eyelid area.

In each case, these wrinkles or "furrows" are caused by facial muscles that voluntarily contract and cause the skin to bunch up and fold into aesthetically unpleasing creases. Botox® can be used to "turn off" these muscle movements and reduce, or totally eliminate, these lines and creases.

Botox® is the trade name for botulinum toxin Type A. This is a purified toxin produced by the bacterium clostridium botulinum. In large amounts, this toxin blocks nerve impulses to muscles and causes a form of paralysis called botulism. The effects of botulism toxin have been known since the turn of the century, but not until 1980 was the toxin found to be therapeutically valuable for a number of ophthalmologic disorders. In very diluted amounts, Botox® can "turn off" the actions of specific muscles. It has been

used to treat eye muscle spasms [blepharospasms] and other neurologic disorders. In recent years, it has been used in the facial area for the treatment of facial wrinkles.

Botox® is FDA-approved for the treatment of blepharospasm and certain other neurologic conditions. The use for the cosmetic treatment of wrinkles is considered an off-label use—similar to the use of Retin-A® for the treatment of acne versus for the treatment of facial wrinkles.

Botox® treatments are done as an outpatient procedure without sedation. Individuals apply a numbing cream to the area they desire to have treated approximately 15-20 minutes prior to their treatment session. Special syringes are used to inject the Botox® precisely into the muscles one desires to have "turned off." The entire treatment takes approximately ten minutes. Individuals are then able to return to their normal activities. Post-treatment patients are asked to stay erect for approximately four hours, not to massage the area, and to squint and raise their eyebrows as much as possible for the next 2-4 hours. The more the muscle moves, the quicker the Botox® moves into the working muscle.

Most individuals state that the treatment is painless. However, some individuals may experience slight tingling or a mild burning sensation. This is usually eliminated with the use of a topical anesthetic cream. The response is usually 2-7 days. During that time, the muscle action gradually decreases. Typically, the effects of Botox® last from 3-5 months. The effects are only temporary and need to be repeated. Some reports indicate that up to 80% of individuals may obtain even longer-lasting results after 3-4 treatment sessions.

Botox® is commonly used in combination with laser surgery and endoscopic forehead lifts to provide even longer-lasting and more satisfactory results in eliminating facial frown lines and wrinkles.

Botox® should not be used by patients who are pregnant or who are taking aminoglycoside antibiotics, penicillamine, quinine, and calcium channel blockers. Most other individuals are very good candidates.

While there are few risks or complications associated with the use of Botox®, some individuals do experience discomfort during the injections, asymmetry, headaches, and temporary drooping of the eyelids. Botox was the first neuromodulator and the name most recognized. However, there are now a number of other neuromodulators which we are able to choose from.

Hair Transplantation

Creeping hairlines and thinning hair have become commonplace with both men and women—even in their twenties and thirties. In fact, 2 out of every 3 adult men and approximately 20% of women, experience balding or thinning to the point that they have considered seeking treatment.

How you see yourself, and how others see you, are very important ingredients for success. Some accept hair loss as a course of nature, but for others it is a distressing condition. Unfortunately, treatments with medications, massage, or therapeutic appliances in the hopes of obtaining hair growth are often frustrating, expensive, and usually useless.


Pre-op Post-op

Advances over the past few years have made it possible to shrink wide bald spots, add hair to sparse areas, and create new, natural-looking hairlines. To date, the most successful method of correcting baldness is to transfer the patient's own hair from non-bald areas to the areas of hair loss. The procedure for treating baldness might well be more accurately termed "hair redistribution." This can frequently lead to dramatic results. The results of today's surgical hair restoration techniques are usually permanent and can be extraordinary. However, treatment often involves multiple visits, and it may take several months to realize the true results. While improvement is often very gratifying, the patient considering hair transplantation should realize that he or she will never be able to obtain a full head of hair comparable to their pre-balding condition.


Pre-op Post-op

Today, many individuals wish to take action at an earlier age and stay ahead of their beginning hair loss by adding fullness and density to thinning areas a little at a time. This results in the grafts being virtually undetectable. One is able to camouflage the newly growing transplanted hairs with their existing hair. This enables one to allow the newly growing transplanted hair to stay subtle and unobtrusive between procedures. This is increasingly important to many individuals, but especially to the growing number of individuals from high-profile business, professional, political, and entertainment fields.

Most patients desire a very natural look. For some, it is a desire to have a thickening of thinning areas subtly over the course of several procedures. On the other hand, some individuals are seeking to have a hairline recreated on a balding scalp. For these

individuals, the new advanced techniques allow a more natural look with low-visibility graft patterns that replace the traditional “row structure” or “cornstalk” look associated with older hair transplantation techniques.

We have all heard people comment that they have not seen “any good-looking hair transplants.” They state that the only hair transplants they see are “obvious” and look “pluggy.” We have all seen men with hair transplants that look like dolls’ hair or rows of corn in the front. Fortunately, there have been tremendous advances in the field of hair restoration. Today, we are able to create more natural-appearing hairlines that decrease the visibility and detectability of hair transplantation. It is an ironic fact that the better the hair restoration technique, the less people notice. This is what we strive for. However, it does mean that probably only a hair restoration expert might be able to detect their transplants. For this reason, most people only notice the bad hair transplant results and, therefore, there is still a common misperception that this is the typical type of result that is achieved with modern hair restoration techniques. Nothing could be further from the truth. While individual results may vary and no one can guarantee results, most individuals find that hair restoration provides them with an overwhelming sense of freedom. They are free from the hassle and expense of weaving wigs or using various hair growth lotions. They no longer need to worry about athletic activities, water, sun, or perspiration exposing their hair loss or damaging their hairpiece. They feel that it frees them from the physical and psychological barriers that hair loss can create.

Classification of Hair Loss

There are seven classifications of baldness, with Class I being normal hair growth and Class VII being the typical horseshoe-shaped baldness. Less than 30% of individuals who have significant hair loss proceed to the Class VII type of baldness. The best indication of whether someone will proceed to that extent is to look at the individual’s father and/or grandfather, since there is a hereditary tendency. It should be noted that individuals will not lose the hair in the posterior occipital area. Hairs taken from this area can be transplanted to the frontal area and they continue to grow, despite hair loss in other areas.

Class I

These individuals have no appreciable hair loss. They are not candidates for Class I surgical hair restoration or artificial hairpieces. If individuals start to experience early hair loss, they may desire to seek drug therapy in the effort to prevent some future hair loss. This will be effective in a very small percentage of men.

Class II

These individuals are experiencing early hair loss in the frontal Class II temporal areas. This can become severe in future years. These individuals may desire hair transplantation early in order to avoid detectability and to negate the adverse effects of advancing hair loss. Not all individuals in this class are candidates. That is determined at the consultation, taking into consideration the patient's age, family history, amount of hair loss, as well as the type and texture of one's hair.

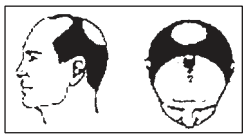
Class III

These individuals have a more advanced stage of hair loss with Class III thinning in the frontal temporal areas, which is more advanced than Class II. In more advanced stages, there can be thinning or even balding on the crown of the scalp. In most cases, these individuals are excellent candidates for hair restoration, utilizing mini- and micro-graft techniques.

Class IV

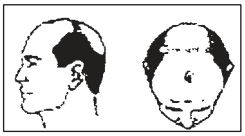
Men with Class IV hair loss have significant hair loss, which results Class IV in severe frontal temporal recession. There are enlarging areas of hair loss on the crown area, which results in a "bald spot." These individuals may use an artificial hairpiece or may choose to proceed with hair restoration to create a more natural frontal hairline. In some cases, grafts or scalp reduction techniques can be used to treat the "bald spot" on the crown area of the scalp.

Class V



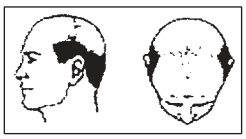
Class V hair loss is very significant hair loss in the frontal area. In Class V early stages, there can be a "bridge" of hair between the bald area on the crown of the scalp and the frontal area. However, this usually thins very quickly and results in the early stages of the so-called "horseshoe-shaped" baldness. Artificial hair transplants may be utilized by some individuals. Others may choose a more natural, permanent restoration utilizing hair transplantation independently or in combination with scalp reduction. In some cases, individuals prefer to have just the frontal hairline and frontal scalp area restored, leaving a bald area on the crown. In other instances, they desire to have all areas treated. The doctor will be able to determine whether or not an individual in Class V is a candidate for hair restoration utilizing these procedures. This is based upon the patient's age, family history, amount of hair loss, type and texture of hair, and the amount of donor hair available.

Class VI



Men with Class VI hair loss have very severe balding. There is significant Class VI hair loss in the frontal area with balding on the crown of the scalp. These individuals may choose to utilize artificial hairpieces. Others may be candidates for hair restoration utilizing hair transplantation techniques alone or possibly in combination with scalp reduction, which removes portions of the bald scalp. This allows a smaller number of hair grafts to more effectively cover larger areas. Again, it is important for men in the Class VI hair loss stage to be thoroughly evaluated to determine whether or not they are a candidate for hair restoration procedures.

Class VII



Men in Class VII have the most advanced stage of hair loss and Class VII typically have the “horseshoe” shaped appearance with a thin band of hair around the perimeter of the scalp. These individuals are not candidates for surgical hair restoration techniques. However, they are excellent candidates for artificial hairpieces.

Treatment Options

Medications

To date, there is no medication that is uniformly effective in stimulating hair growth. There are a variety of medications that are approved by the U.S. Food and Drug Administration for either application to the scalp or for oral ingestion. The appropriateness of these being prescribed for you can be discussed with the doctor at your consultation.

In general, topical medication has been shown in clinical studies to be effective in approximately 8% of individuals. It usually needs to be applied twice daily. It appears to be most effective for stimulating growth in the crown area of the scalp and has little effect in stimulating hair growth in the frontal areas. In our experience, these have been the areas that have been of most concern to patients and the area in which they most desire to have hair growth. To date, no study has been published that proves that the topical medications have an ability to regenerate hairs along the frontal hairline—the area of greatest concern to most men. There is some indication, although no clinical proof, that while not stimulating new hair growth, the topical medication may help to “slow down” further hair loss in a very small percentage of men. In our experience, the chance of topical medications stimulating hair growth has a direct correlation with the patient’s age and the amount of hair loss. Individuals who have the greatest chance of benefiting from topical medical applications tend to be men in their 20’s or 30’s who have a balding or thinning area on the crown of the scalp, which is approximately 2" or less in diameter and which has been present for less than 10 years.

In selected cases, we may prescribe either topical or oral medication to use in conjunction with hair restoration in the hopes of accelerating the hair restoration process. However, this is based upon an individual assessment and on the patient's age, family history, amount of hair loss, type and texture of hair, amount and quantity of donor hair, and medical history.

Artificial Hairpieces

Artificial hairpieces are prostheses that are manufactured from either synthetic fibers such as nylon or acrylic or from severed human hair. The main difference between today's "wigs," "hairpieces," "toupees," and "appliances" and those of the 1800's have to do with the size and manner in which they attach to the scalp. The traditional way to attach a wig to the scalp was with glue or tape. Unfortunately, the wig could easily become dislodged and create an embarrassment. Today, wig manufacturers have developed different methods of attachment. Some wigs are attached by actual wire loops that are surgically stitched into the scalp. While the wig is not easily dislodged, there is a potential for serious infection, not to mention uncleanliness and potential odor that can occur. Some wig manufacturers have utilized synthetic fibers that hook directly into the scalp. These "implants" have been outlawed in most states because of the potential for severe infection and reaction that has occurred.

Some wig makers utilize a "hair weaving" technique. The wig is made up of severed human hair, which is fastened into a filmy netting that is, in turn, tied tightly to the client's remaining natural hair. One problem associated with this technique is that the client often experiences additional permanent hair loss due to the frequent tightening or tension on the hair used to secure the wig [traction alopecia]. In addition, because natural hair grows at approximately one-half inch per month, there is a continued loosening effect, and the individual needs to continually return at approximately six-week intervals to have the wig "tightened."

Artificial hairpieces can be expensive. It is important to find out the total initial cost of one wig and the cost of ongoing maintenance. What most individuals do not realize is that you usually need to buy at least two wigs—one to wear while the other is periodically being cleaned and refurbished. When one considers the cost of the average-to-excellent quality wig and the normal usability span of less than two years per "hairpiece," the lifetime cost of wigs is sizeable. In most cases, the cost of utilizing a wig is comparable to, or exceeds, that of hair transplantation surgery.

Probably the biggest drawback to utilizing hairpieces relates to water-related and perspiration-related activities. While many wig advertisements promote the fact that a man can swim and shower with his wig on, the fact is that this activity usually causes the wig to deteriorate more quickly. One needs to ask if swimming or showering will realistically affect the color and styling of the wig, and if damage will be caused by exposure soap, water, salt, and chlorine.

To keep wigs looking presentable, they must be of high quality and be carefully and expertly maintained.

Surgery

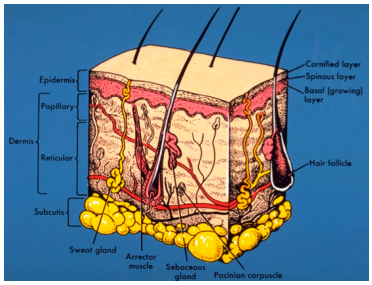
For most men, surgery is the most effective way in which to provide permanent hair restoration. This may utilize hair transplantation techniques where hair is taken from the posterior [occipital] area of the scalp and moved or "transplanted" to non-hair bearing areas where it continues to grow permanently. In other cases, bald areas can actually be removed with an excision technique to actually eliminate the area of baldness or to greatly reduce its size, making it more effective to camouflage the area of hair loss with hair grafts. In unusual cases of hair loss, flaps of hair-bearing skin can be rotated to cover balding areas.

Hair Transplantation—Why It Works

For centuries, doctors could not determine why even the most severely bald men still had a horseshoe-shaped rim of permanent hair along the sides and the back of the head. In the mid-1950's, it was theorized that hairs in this area were genetically programmed to resist the withering effects of male hormones which could cause hair loss. Along with this came the theory of "donor dominance," which means that the genetic characteristics of hair in this area are that it will continue to grow if donor hairs are transplanted into areas of thinning or balding along the front and top of the head where non-permanent hairs had previously withered away from the effects of male hormones.

Essentially, hair transplantation involves removing portions of the skin that contain hair follicles, removing bald areas, and replacing the bald areas with the new hair grafts.

It is important to note that every single follicle on the human scalp is genetically programmed before birth to either become sensitive to male hormones when we begin to go through puberty or to have a permanent resistance. Those that are sensitive to male hormones wither away and die after a certain period of time. Those that are non-resistant continue to grow for a man's entire life.



Men with male pattern baldness have areas in the back of the scalp, or occipital area as it is termed medically, where hairs are noted to be hormone-resistant—the so-called "donor area." Hair transplantation uses the excess permanent hairs from this donor area and relocates or "transplants" the hairs to areas of thinning and balding on the top or front of the head.

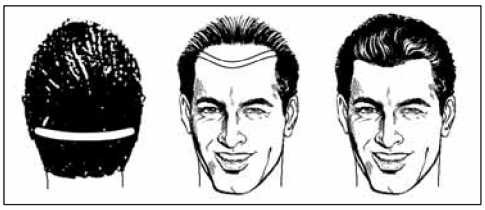
Creating A "Natural" Look

The "art" of hair transplantation and the critical aspect of obtaining a natural-looking hairline is to design a hairline zone that is correct for the natural hairline shape of the face, facial features, and one's age. It is also important to note that the hairline is not actually a true "line." Rather, the hairline is actually a zone that contains many, delicate hairs that blend softly into the forehead area. It is actually an almost undetectable transition zone from bare skin to thicker scalp hair.

In order to create a natural hairline zone and a natural-appearing transplantation, it is important to utilize extremely fine grafts consisting of one or two hairs, and blending them into grafts containing more hairs in order to create this subtle "transition zone." By choosing hairs of varying thicknesses from the donor area and angling them so that they grow in their natural direction, we are able to take a sparse, thinning head of frontal hair and change it into a dense weave of thicker hair packaged tightly together to maximize the appearance of fullness and density. This results in a very natural appearance. Based upon the amount of hair loss, multiple transplantation sessions may be necessary in order to blend and thicken the hair in order to achieve the most desirable aesthetic appearance.

A common mistake made by inexperienced physicians is to design a hairline that is too low on the forehead. As we age, our hairline gradually moves higher. For that reason, to give a 40-year-old man the hairline of a 20-year-old would result in an unnatural appearance that would become even more noticeable with time. It is important to have a hairline zone with a shape and location that is commensurate with that of a non-balding man your age and one that will be appropriate for your facial shape as time progresses.

Technique

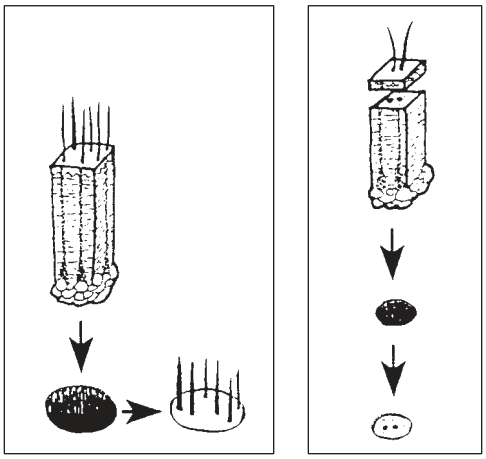


Hair transplant surgery is usually done on an outpatient basis. Because it is simply involving removal of bald areas of scalp and transplanting some grafts of skin containing hair follicles, it is usually considered a minor surgical procedure. Surgery is performed in the surgical suite. While most individuals have "twilight" anesthesia, the procedure can be done entirely under local anesthetic.

Individuals wash their hair prior to surgery with a mild antibiotic shampoo. After the patient is properly sedated and anesthetized, a linear strip of hair is removed with special instruments from the posterior, or occipital, portion of the scalp. Harvesting of excess hairs from the transplant donor area in the very back or along the sides of the head can be

done in such a way that, in most cases, it is very difficult to detect where grafts have been taken from. The technique we utilize minimizes the amount of scarring and detectability as well as minimizing the waste of precious donor hair. After removing the strip of hair, the edges are closed with special sutures, which leave only one or two faint lines that are immediately covered by the surrounding hair. This technique is not only cosmetically beneficial, but it also maximizes the number of hair grafts available as compared to old-fashioned techniques.

Utilizing special instrumentation and magnification, small grafts are created, consisting of 1-2 hair micrografts and 2-6 minigrafts. Special instruments are then used to remove the balding skin. The newly created grafts are then positioned in the new recipient site and positioned precisely to grow together at the angle and in the direction that closely restores your original hair pattern. This results in hair restoration that is specifically customized for you. By creating a gradual transition zone with 1-2 hair grafts and gradually moving into larger grafts, a very natural hairline is created.



Mini-graft Micro-graft

After a brief resting period, the transplanted hair in the new hair zone begins to grow and will continue to grow for the rest of your life. It has been said that hair transplantation is an investment that keeps growing!

Following surgery, your hair is washed and bandages placed over the area to secure the grafts in place. A stocking cap is then placed to camouflage and secure the dressing in place. The patient then goes to the recovery area and is released. Patients can return home. They are seen in the Center the next day for a dressing change. Most individuals find that they are able to resume their normal activities within 3-4 days. For the first 7-10 days, the newly grafted areas are cleaned with hydrogen peroxide and frequent showering.

After approximately eight weeks, the transplanted hairs fall out to make room for the new hairs, which are emerging from the newly transplanted roots. This follows each of the hair transplant procedures and should cause no alarm. This process is similar to a young child shedding his primary or “baby” teeth in order to make room for the adult teeth. At

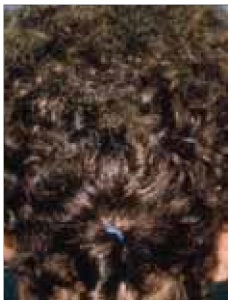
any given time, the scalp contains hairs of many different ages. Beginning the day we are born, the hair undergoes a normal shedding process, whereby an existing hair falls out and new hair replaces it. The transplantation procedure produces a “shock” to the roots of the graft so that, after approximately eight weeks, all the hair in the graft will gradually fall out to make room for the new hairs. In very rare circumstances, hair in the grafts continue to grow and do not fall out. However, this is the exception rather than the rule.

Once new hairs from the transplant graft reach the surface of the skin, they usually grow at approximately one-half inch per month. Male hair needs to be approximately 1-1/2 inches long before it can be appropriately styled. Thus, it takes approximately 4-6 months before we obtain the final aesthetic result from a graft. We usually wait approximately 3-4 months between hair transplant sessions in order to allow the transplanted grafts to obtain a good blood supply and to be able to identify the new growth in order to most effectively place additional grafts.

It is important to note that multiple procedures may be necessary in order to obtain the most desired result. Some of our patients who consider themselves “perfectionists” want to have additional blending and thickening procedures behind the frontal hairline in order to achieve the maximum density possible. Individuals can even obtain additional “softening” of the frontal hairline with additional micrografts. All of this depends upon the patient’s individual desires as well as their hair type, texture, and amount and quality of donor hair available.

Scalp Reduction— Reducing the Bald Spot

Pre-op



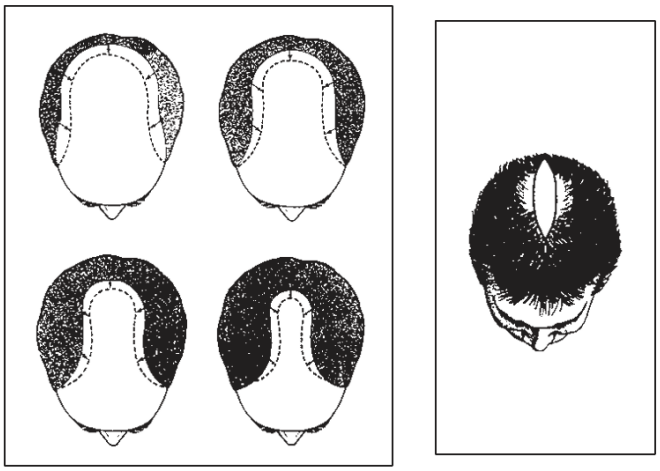
Post-op

Men who have an advanced Class IV, as well as Class V and Class VI male pattern baldness, can often benefit from a surgical procedure to reduce the amount of balding skin. This is called a scalp reduction. It is done under twilight anesthesia or local infiltration anesthesia on an outpatient basis. It utilizes a technique that was developed for the treatment of birthmarks in children, where serial resections are used to remove an area and take advantage of the normal relaxing properties of the scalp skin.

Before scalp reductions, men with significant hair loss and a large circular bald spot on the crown or back of the scalp, were not good candidates for hair transplant. This was because they did not have enough donor hairs to provide sufficient coverage and a dense,

natural-looking appearance. However, scalp reduction allows the bald spot to be reduced from 50-90% before starting hair transplantation. This can actually save a man hundreds of grafts and result in achieving maximum fullness and density in the front and top part of the head in a more accelerated manner.

Scalp Reduction with Linear Horseshoe Incision



The technique involves removing the superficial area of excess skin from the top of the head under a local anesthetic and then closing the reduced bald spot with a special type of suture commonly used in plastic surgery. The line is usually quite inconspicuous. In any case, the incision can be camouflaged at a later state with transplanted hairs from the donor areas. The number of scalp reductions required depends upon the individual's wishes as well as the degree of baldness and their type of skin.

It is important to note that scalp reduction in no way changes the contour of the head, nor does it affect the position of the ears or forehead. Scalp reductions are not recommended in every case. However, scalp reductions have proven to be extremely beneficial for many men with moderate to severe hair loss.

Additional Facts to Remember:

Hair replacement surgery is relatively pain-free, since the combination of twilight and local anesthesia is usually used. Postoperative discomfort is usually minimal and can be relieved with appropriate pain medications, which will be prescribed for you.

Following surgery, most patients return to work, school, or travel within 3-4 days.
Surgical areas can be camouflaged with adjacent hair, hat, or hairpiece.
The cost of surgical hair replacement varies from one patient to another and is dependent upon the size of the total areas to be treated. You will be given an estimate during your consultation.

The cost of surgical hair replacement is comparable to the cost and maintenance of a good hairpiece. Because surgery is usually cosmetic in nature, insurance rarely pays any costs.

The patient pays for each stage of hair restoration as it is performed. Therefore, he is in control of how quickly, or slowly, he wishes to complete his treatment.

Like all cosmetic surgical procedures, it is customary to pay for each procedure in advance of surgery.

We recommend that you do not get a haircut for several weeks prior to transplantation. The longer hair makes camouflaging the donor area easier.

Patients are requested to shampoo their hair at home both the night before and morning of surgery. Do not apply hairsprays or lotions after shampooing.

Following uncomplicated surgery, the small scars that result from surgical hair replacement can usually be camouflaged so that the casual observer cannot notice them. Scars in the donor area shrink with the passage of time and may be hidden by surrounding hair.

Styling is the key to obtaining the best possible result once the “new hair” is in place.

Patients need to realize that they may continue to lose hair with time and may desire to obtain additional procedures in order to maintain the aesthetic result they desire. This can vary from individual to individual.

Frequently Asked Questions

The following are frequently asked questions by patients contemplating hair transplantation:

Question: Just what do we mean by hair transplanting?

Answer: Hair transplantation is a surgical procedure in which hair from normal areas of the scalp, such as back and sides, is moved to the bald area.

Question: Does it really work—has it been proven?

Answer: Yes. For over 60 years, work has been done on this procedure. In properly skilled hands, it has been most successful.

Question: In what types of baldness is the procedure helpful?

Answer: Hair transplantation is helpful in dealing with male pattern baldness. It is also successful in treating baldness as a result of scars from burns, accidents, operations, and in some cases, radiation.

Question: How long will the transplanted hair last?

Answer: Transplanted hair should last a lifetime or at least as long as the hair remains in the region from which the transplants were taken. This conclusion is based on the continued growth of hair examined 60 years after the first hair transplants were performed.

Question: How is this procedure performed?

Answer: The donor area, or back of the scalp, and the bald areas are anesthetized by use of a local anesthetic similar to that used by a dentist. Strips of hair-bearing tissue are then removed with a special instrument. Next, small plugs are removed from the bald areas and discarded. Hair transplants are properly prepared and carefully placed into the previously prepared regions over the bald area. A protective bandage is then applied.

Question: Is this a painful procedure?

Answer: As a number of patients have said, "The discomfort is no more than going to the dentist." The use of a local anesthetic permits painless removal of the small transplants. Momentarily, the local anesthetic produces a mild discomfort. Seldom is there any pain after the procedure. However, any discomfort that may occur after the procedure is generally very mild and readily relieved by analgesics. Because "twilight" anesthesia is used in many cases, most patients have amnesia to their surgery and complain of no discomfort.

Question: How has this procedure been accepted by patients who have had it?

Answer: Acceptance has been excellent, especially by those who have pursued hair transplantation to its conclusion. This usually requires multiple sessions.

Question: How many visits to the doctor will be necessary?

Answer: This varies with the individual patient, depending mainly upon the size of the bald area and the number of transplants performed at each visit. The number of transplants can be reasonably well established at the initial consultation.

Question: Can the transplanting procedure be accomplished at intervals of 3-6 months apart?

Answer: Yes, it can be done in stages to suit the patient. Again, this depends upon the individual's desire and the amount of transplantation necessary. Some patients may require a small number of transplants where the longer intervals may be satisfactory.

However, in the larger areas of baldness, suitable cosmetic results are best accomplished in as rapid, continuous, and carefully planned series of procedures as possible. We usually recommend staged procedures at 3-4 month intervals.

Question: How much time is required for each session of hair transplant?

Answer: This varies with the amount of transplantation done, but usually takes approximately 3-4 hours or so.

Question: How long does it take for transplanted hair to grow?

Answer: The transplanted hair is usually shed in approximately eight weeks. After approximately twelve weeks, new hair begins to grow and continues to grow at the normal rate of approximately one-half inch per month.

Question: Where should the hairline be placed?

Answer: This is a matter of individual preference, but based upon our experience, we make suggestions, depending upon each patient's degree of baldness, their age, facial shape, and the amount of hair available at the donor site.

Question: Shall I have a haircut immediately before the procedure?

Answer: No, the longer the hair, especially in the donor site, the less conspicuous the area of treatment will be.

Question: How should a patient prepare himself for the procedure?

Answer: Very little preparation is necessary. We suggest to our patients that they shampoo their hair the evening and morning before the procedure, eat a light breakfast [toast, coffee, and juice], but avoid over-indulgence of food or drink before coming to the Center. If they are having a twilight anesthetic, the anesthesiologist may give them more specific instructions regarding oral intake, which might differ.

Question: What should the patient do when he leaves the Center?

Answer: Patients usually resume their normal activities, unless this involves strenuous physical exertion, within three days. Usually, bandages remain in place until the following morning. Combing, brushing, or any disturbance of the site should be avoided except as directed by the doctor for the first several days following surgery. General shampooing with baby shampoo is permissible at two days following surgery.

Question: Will my insurance cover this procedure?

Answer: If hair loss is a result of an accident or disease, insurance may cover. However, in the great majority of cases, hair restoration surgery is considered cosmetic and is not

covered by insurance. It is always best to consult with your insurance company concerning this matter.

Question: How much does hair restoration surgery cost?

Answer: This again varies with the individual depending upon the extent of hair loss. Generally speaking, this procedure is no more expensive than a good hairpiece, which would cover the same area. Transplants are usually billed on a per-graft basis.

Question: Can the patient be put to sleep and the transplantation done in the hospital?

Answer: Yes, as an outpatient with patient able to return home following the procedure.

Question: What disorders or medical conditions of the patient should a physician know about?

Answer: The patient should tell the surgeon about any disorder or physical condition he has; especially heart problems, high blood pressure, anemia, bleeding abnormalities, epilepsy, drug reactions, or allergies of any type. It is important for the patient to realize that this is a procedure for those in good health. We recommend that you see your personal physician for a checkup prior to surgery.

Question: Are there any complications from this procedure?

Answer: In our experience, this has been infrequent and minor. However, as with any operative procedure, complications are always possible. Complications can include anesthetic risks, bleeding, infection, wound healing, scar formation, pigmentation changes, injury to muscles and nerves, lack of hair growth, or the need for additional surgery. Fortunately, these complications are very rare; however, they always need to be considered.

Question: Can a toupee or hairpiece be worn after the procedure?

Answer: Yes. This often serves as a protective shield and an excellent cosmetic screen. In extensive cases of baldness where there is inadequate donor hair to cover the area, transplanted hair may be used as a frontal hairline to enhance the natural appearance of the hairpiece for a more acceptable cosmetic result. However, one needs to be careful that the hairpiece does not rub or irritate newly transplanted grafts.

Question: Will there be visible scarring over the front of the scalp?

Answer: As with any cosmetic surgical procedure, if the patient is closely examined, one may be able to detect scar lines. In our experience, this has not been a problem or a cause to deter a hair replacement procedure.

Question: What about the donor site from which the hair transplants were taken?

Answer: After the transplants are removed, the individual donor sites shrink and usually results in a small linear scar that is camouflaged by the surrounding hair.

Question: What causes baldness?

Answer: The most common baldness is hereditary male pattern baldness. Relatively few cases of hair loss are caused by scalp disease or tumors. Hereditary male pattern baldness results from an inherited tendency to lose scalp hair at a certain age, providing the male hormones are present in the bloodstream. Hair around the sides of the head ordinarily remains for a lifetime and, if the hair is relocated, it usually continues to grow in its new location.

Question: Is there any good, non-surgical treatment for male pattern baldness?

Answer: No adequate treatment now exists, but medical researchers are actively investigating this area. While certain topical and oral medications are available, they are not uniformly effective, and the results they provide may vary widely.

Question: Will I continue to lose hair?

Answer: It is difficult to predict, but since the transplanted hair comes from the areas where hair would ordinarily continue to grow throughout one's lifetime, you should not lose a transplanted hair. Hair loss generally continues throughout life and hair restoration procedures do not prevent ongoing hair loss from occurring.

Hair Loss and Your Goals

The doctor will examine you during your consultation. Based upon your medical history, your family history, level of hair loss, texture of donor hair, and other factors including your personal goals, treatment options and recommendations will be provided. It is important to note that the treatment options [if any] recommended are the physician's recommendations at the time of the consultation and are consistent with your current level of hair loss and your current goals for improvement. At the completion of your initial consultation, you will be given a written statement, which will include a current fee schedule for all procedures and our current recommendations. Those statements will include: 1) the number of grafts [if any] currently recommended by the physician; 2) the number of scalp reductions [if any] currently recommended by the physician; and 3) any other treatment currently recommended by the physician. The physician's current recommendations could change in the future depending upon: 1) the patient's rate of future hair loss and medical factors; and 2) modifications in the patient's goals or expectations. Obviously, if the physician's current recommendations change in the future, the costs associated with the patient's treatment will increase or decrease accordingly.

Patient Choices

In general, patients are able to decide the number of grafts, scalp reductions, and surgical sessions they desire— but only within the bounds of safe and effective medical practice as determined by the physician. Obviously, a patient's choices will affect the costs incurred as well as the results that the patient is able to achieve. It is important to note that no one can guarantee how we will heal and that each individual will heal differently. It is also important to realize that we cannot obtain perfection but only improvement.

The Procedure

All aspects of the medical and surgical care at our Center are directed by and controlled by your physician. Hair transplantation and scalp reductions are outpatient surgical procedures. Most patients choose to have their surgery performed under "twilight" anesthesia under the supervision of our anesthesiologist. However, patients may choose to have the procedure with the administration of only local anesthetics. The degree of pain or discomfort experienced by patients during and after the procedure varies. However, most individuals find that this is minimal. Hair restoration procedures may result in detectable scarring. Hair transplants and scalp reductions are performed by your physician with the assistance of trained personnel. Your physician creates the recipient sites and selects grafts for those sites. Grafts are preliminarily placed in recipient sites by trained assistants. Your physician inspects the placement of the grafts and may make adjustments before applying your dressing.

Future Hair Loss

In general, hair loss continues throughout life. Ongoing hair loss is not prevented by hair restoration procedures. While the transplanted hairs continue to grow for a lifetime in the majority of patients, they may experience continued hair loss in other areas.

Hair Removal

Cosmetically distressing facial and body hair is a problem for many people. In the past, the only method for hair removal was shaving, waxing, or using an electric needle [electrolysis] to treat these conditions. In most cases, these treatments were uncomfortable and had to be repeated frequently.

Recently, laser and light therapy has been utilized to provide more effective hair removal.

Hair covers most of our body and at times can provide an unpleasing aesthetic appearance. Not all hairs are actively growing at one time. Hairs actually go through distinct phases of growth, regression, and "resting." The length of each phase depends upon a variety of factors, including body location. It is estimated that, at any one time, 90% of the hairs on our heads are in the growth or "anagen" phase. On the other hand, only 70% of the hair on our arms are in the growth phase. During the regression or "catagen" phase, the hair bulb shrinks. The hair then enters the "telogen" or resting phase. After this, the hair falls out and the hair follicle starts the re-growth cycle once again. Hormones, body site, age, and ethnicity all affect the length, coarseness, and color

of body hair. How much hair one has depends upon the number of hairs that are in their active growth phase and how long that phase lasts.

A number of techniques are available for laser and light hair removal. In some cases, the patient will shave or wax the area prior to treatment in order to provide more effective results. In other cases, creams or gels may be placed over the skin surface to facilitate the treatment. In each case, an instrument is rubbed over the skin, which produces energy or a light wave that is specifically pulsed or "tuned on" to disable the hair follicle growth center. The treatment is most effective when the hair follicle is in the active growth phase. For that reason, several treatments are usually required in order to disable all hairs in an area. Remember, not all hairs in an area are in the same growth phase at the same time.

Treatments are not painful. Some people may experience a slight tingling sensation, but most people tolerate the procedure well and require no sedation. Some areas of the body in some individuals are more sensitive than others, so one may elect to have a topical anesthetic applied in order to decrease discomfort during the procedures.

Treatments are done on an outpatient basis and individuals are able to drive themselves to and from the Center. Immediately after the treatment, the areas may be slightly red and puffy. This reaction subsides quickly and within 1-2 days, the area returns to its normal appearance. Bandages and dressings are generally not necessary, and most people can resume their normal activities immediately.

It is important for one to be realistic concerning their hair removal desires. The result one obtains depends upon a variety of factors, including their skin texture and tone, degree of hair growth, and body area they desire to have treated. These factors and the results one obtains can vary significantly from individual to individual. One treatment will not permanently remove all the hairs in a treated area. However, hair removal can provide, in most people, significant reduction in hair volume and prolong the re-growth in many cases.

Sclerotherapy [Veins]

Many individuals have dilation of small veins commonly found on the lower extremities, which they consider unattractive. These small, but enlarged, veins are commonly found on the thighs, around the knees, on the calves, and on the ankles. Medically, this condition is called telangiectasias, but it is more commonly known as "spider veins," broken capillaries, "sunburst" vessels, or varicosities. These veins do not serve a purpose, so they can be removed without posing a health problem. Sclerotherapy is commonly used to treat these dilated vessels.

Sclerotherapy consists of injections of a solution into the vein, which causes irritation in the vein lining that result in the vein collapsing. When the blood flow is stopped, the vein will eventually disappear. This procedure is generally performed on the lower extremities. Usually, several injections are required to remove these vessels.

The veins will gradually disappear within several weeks following treatment. However, in some cases, disappearance may take several months. Depending upon the degree of severity, the process may need to be repeated. Spider veins that are very small in diameter can be treated utilizing sclerotherapy. However, varicose veins that are pencil-size in diameter or larger need to be treated by a general surgeon or a vascular surgeon by an excision technique.

Sclerotherapy is usually performed as an office procedure on an outpatient basis. It usually requires approximately 20 minutes or longer per session. Usually only 1-2 areas are treated at a single treatment session. Extensive vein treatment may require several visits.

Most patients experience minimal discomfort with the injection. Anesthetics are not required. The mild discomfort is usually related to irritation caused by the substance injected into the veins and subsides very quickly. In some cases, pressure may be applied to the injected area for 24-36 hours after treatment. Rest is usually not necessary, and individuals are usually able to return to their normal activities immediately. In many cases, daily walking for at least 20 minutes after treatment is strongly encouraged to facilitate results.

Most individuals are extremely pleased with the results of their sclerotherapy. However, one needs to realize that multiple treatment sessions may be necessary and that persistent vessels may require serial injections.

When dilated veins are more superficial, they may be removed with phototherapy treatments or with laser treatments. Ointments are placed on the skin and light energy is used to outline the dilated vein. This treatment is usually painless or associated with minimal discomfort. It is done on an outpatient basis as an office procedure and does not require sedation. In most cases, patients can resume their normal activities immediately. However, there may be mild discoloration, which can last several days. But when it occurs, it is usually easily camouflaged. Serial treatments and combined therapy utilizing both laser-light and sclerotherapy may be necessary for larger and persistent dilated veins. Results may vary from person to person, based upon a multitude of factors. However, most patients find results very pleasing.