

**The American Academy of Otolaryngology—
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Chapter 12: Facial Plastic Surgery

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Chapter 12: Facial Plastic Surgery

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Dr. Gregory Staffel first authored this short introduction to otolaryngology for medical students at the University of Texas School for the Health Sciences in San Antonio in 1996. Written in conversational style, peppered with hints for learning (such as "read an hour a day"), and short enough to digest in one or two evenings, the book was a "hit" with medical students.

Dr. Staffel graciously donated his book to the American Academy of Otolaryngology—Head and Neck Surgery Foundation to be used as a basis for this primer. It has been revised, edited and is now in the second printing. This edition has undergone an extensive review, revision and updating. We believe that you, the reader, will find this book enjoyable and informative. We anticipate that it will whet your appetite for further learning in the discipline that we love and have found most intriguing. It should start your journey into otolaryngology, the field of Head and Neck Surgery.

Enjoy!

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A large part of otolaryngology involves performance of facial plastic surgery. This runs the gamut from doing **traumatic repairs** on lacerations of the face to **reconstruction** after cancer, and then to purely **cosmetic** procedures such as a facelift (**rhytidectomy**). Here are some of the basic principles involved in taking care of patients with injuries or deformities of the face.



Figure 12.1.

This patient was an unrestrained passenger in a motor vehicle accident. They have multiple facial lacerations, contusions and fractures. Remember the ABC's in their management.

Soft Tissue Trauma:

It is often very striking when patients present after suffering massive facial trauma. They may have large flaps of tissue that have been folded back, exposing the underlying anatomy. They may also have some areas of tissue that are missing. Facial disfigurement from fractured and displaced facial bones, may be present. Often, there is blood, mud, and maybe even a little beer in the wound. These patients have an "Oh, wow!" effect when you see them for



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the workup. The workup should begin with the basics of trauma management: **evaluation of all other associated injuries**, administration of **antibiotics**, and a **tetanus shot**, if needed. Don't forget to check to be sure that the C-spine has been cleared. Smaller lacerations can be taken care of satisfactorily in the emergency room. Sometimes, however, it's best to go to the operating room, especially if repair will require more than an hour or so. Once you are down to managing these soft tissue injuries of the face, a few principles will help.

The first principle is careful reapproximation of all remaining tissue. After the wound has been anesthetized and cleansed, it becomes obvious where the tissues need to go. It is important to be meticulous when you are reapproximating them, somewhat like putting together a jigsaw puzzle! Line up known lines first: rather as in a split-image viewfinder on a 35-mm camera, the vermilion border of the lips, **free margins of the nasal filtrum** (the line from the bottom of the nose to the upper lip), and edges of eyebrows, eyelids, and parts of the pinna must be perfectly aligned. If you don't get them right the first time, cut out the sutures and do it again. Deep sutures of **polyglactin** help to reduce the tension placed on the actual skin wound. Take care to evert the wound edges as much as possible, especially when placing the skin stitches. Nylon



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Figure 12.2(a, b).

Pre- and postop photographs of a woman who has undergone facial rejuvenation. She has had surgery to her eyelids (blepharoplasties), removal of fat from her neck (liposuction), and resection of excessive facial skin (facelift). Improvement in facial appearance is often dramatic (as in this case) and secondary benefits through enhancement of self-esteem may be even more dramatic.



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or polypropylene is usually used on the skin. On the face, 5-0 or 6-0 suture is usually adequate. Immediately after a wound is closed, it fills with serum, which clots. This serum prevents water from entering the wound. Please don't make a patient keep a wound dry for a week—a wound may be allowed to get wet within a few minutes of closure if the microscopic clot isn't disrupted. Thus, you may tell patients they can get their wound wet as long as they don't scrub it. Do ask them to keep ointment on a wound, to retain moisture and reduce crusting until the skin has grown across (usually about a week on the face).

Skin stitches on the face should be removed at 3-5 days, and allowed to remain somewhat longer on the ear and scalp, usually around 7 days. It is important for patients to realize that scars take a minimum of 1 year to mature because a complex biologic process goes on in the formation of a scar. The time course usually involves the scar turning very red, with the maximum redness occurring at approximately 6 weeks. It then tends to fade to purple and brown before eventually turning white. In general, scar revisions aren't done until a scar has matured for at least a year. Sunscreen should be used for at least the 1st year after the injury because scars can become **hyperpigmented** with exposure to the sun. Occasionally, if **hypertrophic** scars tend to form, steroid injections into them can help. Recently, early **dermabrasion** (like sand-



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ing a piece of wood), at 6-8 weeks, has been used with success in reducing scarring. Timing of this procedure is critical. Covering the wound with silastic sheeting, has recently been shown to decrease exuberent scars.

Septorhinoplasty:

Perhaps the most common form of facial plastic surgery that an otolaryngologist performs is a **septorhinoplasty**. In this operation, the deviated septum is straightened and the outside of the nose may also be changed in form through various surgical maneuvers. The most common procedure is straightening the septum (**septoplasty**), which is performed through the nostrils and entails realignment of the septum into the midline.

Changing the external contour of the nose is called **rhinoplasty**. The most important part of rhinoplasty is maintaining or improving the airway, so a septoplasty is usually performed as part of this procedure. Patients who can't breathe through their nose after an operation will be very dissatisfied because it takes much more physiologic work to breathe through the mouth than it does through the nose.

Classically, rhinoplasty was performed on people with large dorsal humps. However, patients' sophistication and demands have changed. We now find ourselves restructuring and recontouring the outside of the nose, often even augmenting it instead of making it smaller. Anyone's



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most attractive feature is the eyes, so the end cosmetic goal of rhinoplasty is to keep the nose from drawing attention away from the eyes. Over-reduction of the bony and cartilaginous framework of the nose leads to long-term cosmetic deformity and, often, airway compromise. Surgical correction of this **iatrogenic** problem is challenging at best, and tends to be unrewarding for both the patient and the surgeon.

Blepharoplasty:

Blepharoplasty is often performed by otolaryngologists who perform facial plastic surgery. When the upper lid skin becomes redundant dermatochalasia, they can actually obstruct the upper field of vision. When this is the case, the skin can be removed to allow better vision. This is the main functional benefit of a blepharoplasty; however, patients also will often desire some cosmetic changes around their eyes. Bulges that occur below the eyes consist of orbital fat pressing against a weakened orbital septum. This fat can be resected, along with extra skin and muscle. However, this must be done with great care, as there is little margin for error, especially around the lower lid.

Other Facial Plastic Surgery:

Occasionally, the eyebrows lie below the level of the superior orbital rim. This is called brow **ptosis** and can cause an apparent excess of skin in the upper lid.



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Elevation of the brow with a brow lift can reduce redundant skin of the eyelids.

A natural extension of a brow lift includes surgery for the rest of the aging face. This can include a forehead lift, a facelift, **chemical peeling, laser resurfacing**, and dermabrasion. A facelift removes slack facial skin and is performed through incisions that run in front of the ear, up into the scalp, and behind the ear into the scalp. The operation involves undermining the skin over the face and neck, with resuspending of the platysma muscle, cheek fat pad, and, in some cases, the **orbicularis oculi** muscle. The skin is then redraped and the excess skin trimmed. Occasionally, very fine wrinkles aren't addressed by this procedure, so patients will choose either a chemical peel, dermabrasion, or laser resurfacing. This is usually necessary, especially around the mouth, where **perioral rhytids** tend to be very prominent.

Otoplasty:

Some people have ears that stand out from their head further than normal. This is usually congenital, and anatomically is due to either an unfurled **antihelical** fold, a deep **conchal bowl**, or both. Many children are viciously teased by their peers because of their prominent ears. Surgical correction of the ears is a relatively simple and very satisfying operation. Interestingly, many 3rd-party



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payers feel this is "cosmetic" surgery and refuse to pay for it. They seem to ignore the tremendous difference between the person who looks normal and wants to look better (cosmetic surgery) and the person who looks abnormal and wants to look normal (reconstructive surgery). No child should be denied this operation if it is desired and the ears fall outside normal measurements. Hopefully, 3rd-party payers can be made to understand the difference in this case between "cosmetic" and "reconstructive" surgery.

Questions, Section #12

1. The most important part of any rhinoplasty is maintaining or improving the _____
2. The first principle in the management of soft tissue wounds is _____

Answers

1. Airway
2. Meticulous reapproximation



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The American Academy of Otolaryngology—Head and Neck Surgery Foundation offers many programs designed to keep you up-to-date without leaving your practice. Most activities offer Category 1 AMA/PRA credits. The Academy/Foundation also serves as a primary resource for otolaryngology/head and neck surgery activities and events, and serves as an online clearinghouse for patient education and specialty information.

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