

# The Oral and Maxillofacial Surgeon

A PATIENT'S GUIDE



Oral and maxillofacial surgeons:  
The experts in face, mouth and jaw surgery™

---



Oral and facial surgeons are the surgical specialists of the dental profession. Their extensive education and training, their surgical expertise and unparalleled understanding of esthetics and function uniquely qualify them to treat the conditions, defects, injuries and esthetic aspects of the mouth, teeth, jaws and face.

This brochure discusses the role of the oral and facial surgeon on your healthcare team and some of the many services provided in their office.

## **TRAINING AND SCOPE OF PRACTICE**

Following dental school, oral and facial surgeons spend a minimum of four years in a hospital-based surgical residency program. Some surgeons may also opt to earn a medical or other advanced degree and/or complete fellowships in sub-specialty areas.

At the conclusion of their demanding training, oral and facial surgeons are well prepared to:

- manage diseases of the teeth and their supporting soft and hard tissues;
- surgically reconstruct inadequate bone structure in the jaw area;
- evaluate, plan a course of treatment and place dental implants to replace one, two or a mouthful of missing teeth;
- expertly treat head and neck trauma and injuries to the face, jaws, mouth and teeth;
- diagnose and treat facial pain;
- diagnose and treat oral cancer and other diseases in the maxillofacial region;
- perform corrective jaw surgery to improve the function and appearance of patients with such conditions as cleft lip and palate and other congenital defects;

- diagnose and treat obstructive sleep apnea; and
- perform facial cosmetic procedures to enhance appearance and function.

## **ANESTHESIA**

Oral and facial surgery residents train with anesthesiologists and anesthesiology residents. No other dental or medical specialty requires this degree of training and, as a result, oral and facial surgeons are the only healthcare specialists, aside from anesthesiologists, to administer all levels of sedation and general anesthesia. Anesthesia administered in the OMS office ranges from conscious sedation, to deep intravenous sedation and general anesthesia. The level of anesthesia administered is carefully matched to the specific needs of the patient and the type of procedure that is to be performed.

## **OFFICE SURGERY**

Following are some of the many surgical procedures performed by oral and facial surgeons.

### **Dentoalveolar Surgery**

Dentoalveolar surgery is the surgical management of diseases of the teeth and their supporting hard (ie, bone) and soft (ie, skin, muscle) tissues.

### **Tooth Extractions**

Tooth extraction is the most common type of dentoalveolar surgery. It may be recommended as a treatment for teeth that are crowded, diseased beyond restoration, impacted and unerupted, or supernumerary (extra).

A tooth that fails to emerge or fully break through the gum tissue is, by definition,

“impacted.” While this is a common problem associated with third molars, or wisdom teeth, which are the last teeth to develop and erupt into the mouth, other teeth can also become impacted.

Oral and facial surgeons have extensive surgical training and experience in diagnosing and extracting teeth. Whether the extraction is simple or complicated by impaction, disease or infection, their surgical skills make them the obvious choice for the patient in need.

### **Wisdom Teeth (Third Molars)**

In recent years there has been a lot of discussion about wisdom teeth, or third molars – why should they be removed; when should they be removed; do they have to be removed? It seems that everyone has an opinion, but there is one undeniable truth: When it comes to your wisdom teeth, the worst thing you can do is ignore them!



Every patient and every case is unique; therefore, a decision regarding surgery must be made after:

- a careful examination of your mouth;
- a radiographic examination involving X-rays or a CT-scan; and
- a discussion with your dentist and oral and facial surgeon.

Depending on the results of your dental examination, your oral and facial surgeons may:

- extract the complete tooth;
- partially remove the tooth (coronectomy); or
- observe the tooth over time for changes in condition.

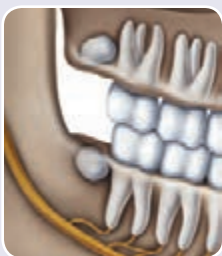
In general, dental professionals agree that third molars should be removed whenever there is evidence of:

- periodontal disease,
- cavities that cannot be restored,
- infections,
- cysts or tumors, and/or
- damage to neighboring teeth.

Third molars may not require surgery if they are:

- completely erupted and functional,
- painless,
- free of cavities,
- disease-free and
- in a position that can be kept clean and healthy.

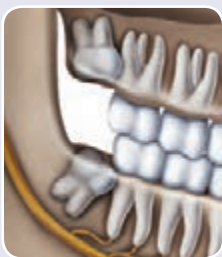
If, after discussing your situation with your family dentist or oral and facial surgeon, you decide to keep your wisdom teeth for the time being, it's important to agree on a long-term plan for monitoring the health and condition of these teeth and their surrounding gum tissue.



12 years



14 years



17 years



25 years

### **Wisdom Teeth Growth by Age**

Whether impacted, as shown here, or fully erupted wisdom teeth are easier to remove when the patient is younger, since their roots are not completely formed, the surrounding bone is softer, and there is less chance of damaging nearby nerves or other structures. Removal of wisdom teeth at a later age becomes more complicated as the roots have fully developed, may involve the nerve, and the jawbone is denser.

Most oral and facial surgeons recommend the following maintenance routine:

- Schedule a dental check-up at least annually.
- X-rays or CT scans should be taken to see the wisdom teeth and surrounding bone.
- A clinical examination should be performed annually to determine whether any disease is developing.
- Particular care must be taken to clean and floss the area as part of your daily oral health care regimen.

## **Orthodontic Surgery**

Often a patient is referred to an oral and facial surgeon for an extraction or another surgical procedure in preparation for orthodontic treatment, such as extraction of over-retained baby teeth or the exposure of unerupted teeth so that the orthodontist may position them properly.

## **Preprosthetic Surgery**

Oral and facial surgeons are experts at preparing the mouth for the placement of a partial or complete denture, ensuring a comfortable fit. Because dentures rest on a bone ridge, it is very important that the bone is the proper shape and size. To ensure proper fit of the denture, the bone may need to be smoothed or reshaped. Occasionally, excess bone must be removed or recontoured before the denture is inserted. In such cases, oral and facial surgeons may perform one or more of the following procedures:

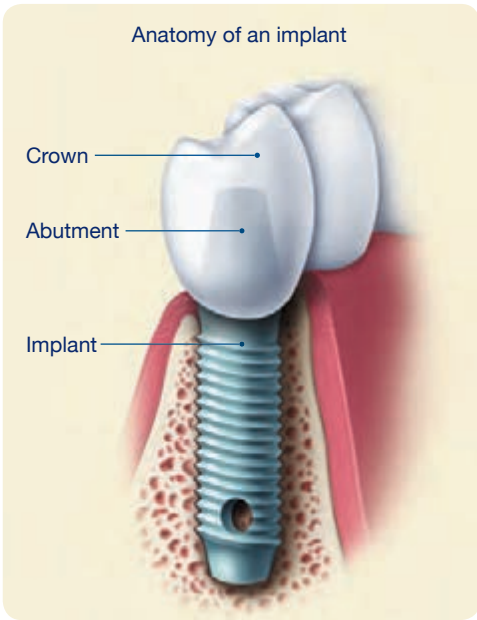
- bone smoothing and reshaping;
- removal of excess bone;
- bone ridge reduction;
- removal of excess gum tissue; and/or
- grafting of skin or specialized gum tissue.

## **Dental Implants**

Oral and facial surgeons pioneered dental implant placement and are still the leaders in providing the innovative techniques that offer patients natural-looking results that can last a lifetime.

Because of their extensive surgical training and years of experience in the dental implant field, oral and facial surgeons are able to successfully place dental implants in most



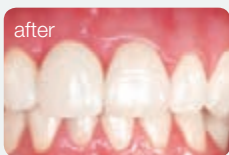
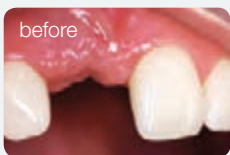


patients, even so-called “high-risk” patients suffering from chronic health conditions, gum disease or bone loss in the jaw area.

Following are some of the procedures provided by oral and facial surgeons to assure the best possible outcome:

**Immediate Loading** – Advances in dental implant technology allow OMSs to extract teeth and place implants with crowns at one visit.

**Bone Grafting** – Oral and facial surgeons are the only dental specialists trained to obtain bone grafts and place them in areas where little or no bone exists. For example, dental implants, if they are to fuse with the jawbone successfully, must be placed where there is an adequate volume of bone. Implant sites that lack the necessary bone can be enhanced with the use of bone grafts.



In some cases – often in the more visible areas of the mouth – a temporary crown may be placed on the implant at the time of surgery – a procedure called “immediate provisionalization.”

Grafts may be taken from the patient, a bone allograft from a bone bank, or another source. Bone grafts are also used to treat bone loss resulting from traumatic injuries, tumor surgery or congenital defects.

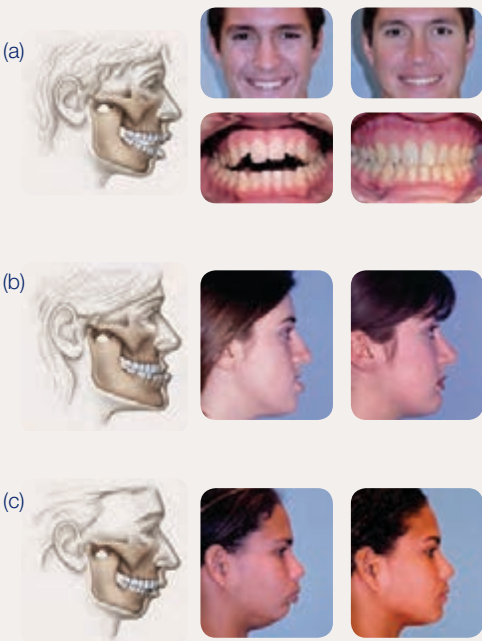
**Sinus Lift** – A sinus lift is a bone grafting procedure that is sometimes performed when the amount of bone in a patient’s upper jaw is inadequate to accommodate a dental implant.

Oral and facial surgeons are skilled in evaluating their patient’s unique needs and developing an appropriate treatment plan. Whether they are replacing a single tooth or a mouthful of teeth, oral and facial surgeons can perform dental implant surgery comfortably in the office setting.

### **Corrective Jaw Surgery**

Differences in skeletal growth between the upper and lower jaws may lead to problems with chewing, swallowing, speech or temporomandibular joint (TMJ) performance. Patients may also exhibit psychological difficulties stemming from esthetic and social concerns.

Corrective jaw surgery, also known as “orthognathic” surgery, is used to correct a wide range of minor and major skeletal and dental irregularities. Oral and facial surgeons perform orthognathic surgery to realign jaws and teeth, and to improve such basic functions as chewing, speaking and breathing. While a patient’s appearance may be dramatically enhanced as a result of their surgery, corrective jaw surgery is performed to correct functional problems.



Common dentofacial deformities include an open bite (a), a prognathic or protruding jaw (b) and a retrognathic or receding lower jaw (c). The oral and facial surgeon performs corrective jaw surgery to produce a more balanced and functional skeletal relationship for the patient.

## **Congenital Reconstruction**

Congenital deformities like cleft lip and palate occur when all or a portion of the oral-nasal cavity does not grow together during fetal development. As members of a team of healthcare specialists, oral and facial surgeons play an important role in the carefully orchestrated, multiple-stage correctional program designed to help restore the jaw and facial structures leading to normal function and appearance. Care and treatment consider function, appearance, nutrition, speech, hearing, and emotional and psychological development.

## **Facial Cosmetic Surgery**

As a result of their surgical and dental background and their ability to reconstruct facial structures damaged through trauma, oral and facial surgeons are keenly aware of the importance of harmony between facial appearance and function. Many of today's facial cosmetic procedures can be performed on an outpatient basis in the oral and facial surgeon's office. Some facial cosmetic surgery may require the use of an outpatient or same-day surgery center, or hospital. Depending upon the procedure, surgery may be performed under local anesthesia, IV sedation or general anesthesia.

## **Facial Infections**

Pain and swelling in the face, neck or jaws may indicate an infection. Infections in this area of the body can sometimes develop into life-threatening emergencies if not treated promptly and effectively. An oral and facial surgeon can assist in diagnosing and treating this problem. Surgical treatment, if needed, may include draining the infected area and eliminating the source of the infection.

## Facial Trauma

Oral and facial surgeons are experts in treating and repairing facial trauma, including fractures of the upper and lower jaws and the orbits surrounding the eyes, and facial lacerations. Their knowledge of how jaws come together (dental occlusion) is critical when repairing complex facial fractures. In fact, the American College of Surgeons' guidelines for optimal care require Level I and II trauma centers, those that treat the most serious and complex facial trauma patients, to have oral and facial surgeons on call to perform complex reconstruction of the mouth, face and jaws. Moreover, oral and facial surgeons developed many of the techniques that are standard in today's hospital emergency rooms in combat hospitals during World War II, Korea, Vietnam and today's international conflicts.



a



b

Extensive maxillofacial fractures are often accompanied by other medical problems. The oral and facial surgeon coordinates treatment with other medical specialties to return the patient to their normal activities as soon as possible. The young woman pictured in fig. (a) prior to surgery and (b) following surgery to repair her injuries.

Trauma does not only result from major events like combat or automobile accidents. Childhood injuries caused by skateboards, sports or bicycle accidents frequently involve dental or facial trauma. Younger children often sustain damage to teeth or supporting structures from falls. The use of safe and effective sedation techniques allows many traumatic injuries to be effectively treated in the oral and maxillofacial surgery office, avoiding costly emergency room visits.

### **Lesion Removal and Biopsy**

Oral and facial surgeons are trained to identify abnormal growths or tissue through a clinical examination of the mouth and the evaluation of X-rays. Since the mouth is a



most accessible area, the surgeon can either remove a representative sample (biopsy) for laboratory examination, or remove the entire pathology.

### **Oral Pathology**

Oral and facial surgeons are trained to perform biopsies of lesions in the maxillofacial region and are experts in the clinical and microscopic diagnosis of disorders involving the mouth and jaws. Oral lesions include benign tumors and cancers, growths of tooth origin and those that arise in the salivary glands, infections (both local and systemic) and manifestations of systemic, or body-wide, disorders.



Oral cancer is no longer a disease experienced by the middle-aged patients with histories of smoking and alcohol consumption. Today oral and facial surgeons are seeing a growing number of oral cancer patients in their 20s and 30s. A growing use of smokeless tobacco and a rise in Human Papillomavirus (HPV) cases are considered responsible for this situation. Oral and facial surgeons stress that early detection and treatment of oral lesions greatly improve the patient's prognosis. Lesions may be managed medically and/or surgically.

### **Oro-Facial Pain**

Infection, malocclusion, TMJ, tumors, or nerve pathology may cause oro-facial pain. Oral and facial surgeons are trained to diagnose the full spectrum of conditions that may cause pain in the mouth or face and to provide the appropriate medical or surgical treatment.

### **Reconstructive Surgery**

Inadequate bone structure in the upper and or lower jaws can result from injury or trauma, tumor surgery or long-term denture wear. Using bone grafts from either the patient's own bone or bone substitutes, the oral and facial surgeon can improve both the quantity and quality of the hard tissue. Skin grafts and soft tissue corrections can improve the architecture of the soft tissues in the oral and maxillofacial region. Through oral reconstructive surgery, a solid foundation can be provided for dental rehabilitation, which in turn aids nutrition and speech. If the patient is a candidate, dental implants may be used to replace lost teeth and other structures. Implants can also be used to anchor oral and facial prostheses.



## Snoring/Obstructive Sleep Apnea

Approximately 18 million Americans have been diagnosed with obstructive sleep apnea (OSA) and experience breathing problems during sleep. Such problems can range from snoring to periods of true apnea, where breathing ceases for a brief period of time. Obstructive sleep apnea can lead to excessive daytime sleepiness, poor work performance and such cardiovascular disorders as hypertension, arrhythmias and congestive heart failure. Oral and facial surgeons are trained to diagnose and treat this condition and, in fact, pioneered many of today's most successful surgical techniques for sleep apnea. When conservative methods fail to correct the problem, surgery may be performed to treat the soft and/or hard tissues.



Narrow airway



Airway is enlarged.

Jaw is surgically moved forward.

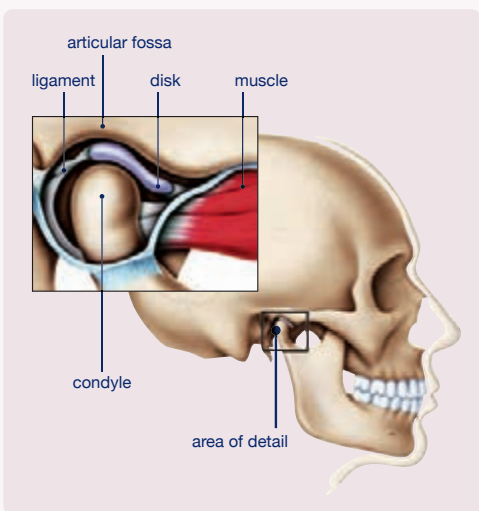
## Maxillomandibular Advancement (MMA) Surgery

MMA surgery focuses on expanding the airway by surgically moving the jaw forward.

## **TMJ Disorders**

The temporomandibular joint (TMJ) is a common cause of facial pain and headache. Located where the lower jaw and skull meet, the TMJ is a ball and socket joint that allows the lower jaw (mandible) to move and function. Symptoms of TMJ disorders may include earaches, headaches and a limited range of jaw movement. Patients may also complain of clicking or grating sounds in the joint, or pain when opening or closing their mouths. Some patients experience a combination of muscle and joint problems. Causes of TMJ disorders include osteoarthritis, cartilage displacement or injury, rheumatoid arthritis, or stress.

In order to properly diagnose and treat the problem, oral and facial surgeons conduct a clinical examination and use a number of diagnostic procedures, including imaging studies such as radiograph, CT or MRI. Treatment may include such non-surgical options as soft diet, anti-inflammatory drugs, and physical and/or bite splints. Lysis and lavage and arthroscopic joint surgery are minimally invasive procedures that have proven effective in resolving certain conditions involving TMJ pain and dysfunction. These procedures can be done under general anesthesia on an outpatient-surgery basis at a hospital or ambulatory surgery center. More complex joint surgery may be indicated for advanced conditions.



### Anatomy of the TMJ

The TMJ is a hinge and gliding joint and is the most constantly used joint in the body. The round upper end of the lower jaw, or the movable portion of the joint, is called the condyle; the socket is called the articular fossa. Between the condyle and the fossa is a disk made of cartilage that acts as a cushion to absorb stress and allows the condyle to move easily when the mouth opens and closes.

Oral and facial surgeons are an important link in the referral network for dentists and physicians. To find an oral and facial surgeon in your community, visit the “Find a Surgeon” database at [MyOMS.org](http://MyOMS.org), or call the American Association of Oral and Maxillofacial Surgeons at 800.822.6637.



**American Association of Oral and  
Maxillofacial Surgeons**

9700 West Bryn Mawr Avenue  
Rosemont, Illinois 60018-5701  
tel. 847.678.6200 / 800.822.6637  
fax. 847.678.6286  
MyOMS.org

---

The American Association of Oral and Maxillofacial Surgeons (AAOMS), the professional organization representing more than 9,000 oral and maxillofacial surgeons in the United States, supports its members' ability to practice their specialty through education, research and advocacy. AAOMS members comply with rigorous continuing education requirements and submit to periodic office anesthesia evaluations.

The information provided in this publication is not intended as a substitute for professional medical advice, diagnosis, or treatment. It is provided to help you communicate effectively with your oral and maxillofacial surgeon. Always seek the advice of your oral and maxillofacial surgeon regarding an oral health concern.