Treating and Preventing Facial Injury

Maxillofacial injuries, also referred to as facial trauma, encompass any injury to the mouth, face and jaw. Almost everyone has experienced such an injury, or knows someone who has. Most maxillofacial injuries are caused by a sports mishap, motor vehicle accident, on-the-job accident, act of violence or an accident in the home.

If a person is unconscious, disoriented, nauseated, dizzy or otherwise incapacitated, call 911 immediately. Do not attempt to move the individual yourself. If these symptoms are not present but the injury is severe or you are uncertain about its severity, take the person to the nearest hospital emergency room as quickly as possible.

Oral and Maxillofacial Surgeons Treat Injuries to Teeth, Mouth, Jaws and Facial Structures

At the hospital, the individual will most likely be seen by several medical personnel, one of whom will probably be an oral and maxillofacial surgeon. Oral and maxillofacial surgeons, the surgical specialists of the dental profession, are specifically trained to repair injuries to the mouth, face and jaws. After four years of dental school, oral and maxillofacial surgeons complete four or more years of hospital-based surgical residency training that may include rotations through related medical fields, including internal medicine, general surgery, anesthesiology, otolaryngology, plastic surgery, emergency medicine and other medical specialty areas.

At the conclusion of this demanding program, oral and maxillofacial surgeons are well-prepared to perform the full scope of the specialty, which includes emergency care for the teeth, mouth, jaws, and associated facial structures.

Treating Facial Injury

One of the most common types of serious injury to the face occurs when bones are broken. Fractures can involve the lower jaw, upper jaw, palate, cheekbones, eye sockets and combinations of these bones. These injuries can affect sight and the ability to breathe, speak and swallow. Treatment often requires hospitalization.

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(*b*)

Extensive maxillofacial fractures are often accompanied by other medical problems. The oral and maxillofacial 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.

The principles for treating facial fractures are the same as for a broken arm or leg. The parts of the bone must be lined up (reduced) and held in position long enough to permit them time to heal. This may require six or more weeks depending on the patient's age and the fracture's complexity.

When maxillofacial fractures are complex or extensive, multiple incisions to expose the bones and a combination of wiring or plating techniques may be needed. The repositioning technique used by the oral and maxillofacial surgeon depends upon the location and severity of the fracture. In the case of a break in the upper or lower jaw, for example, metal braces may be fastened to the teeth and rubber bands or wires used to hold the jaws together. Patients with few or no teeth may need dentures or specially constructed splints to align and secure the fracture. Often, patients who sustain facial fractures have other medical problems as well. The oral and maxillofacial surgeon is trained to coordinate his or her treatment with that of other doctors.

During the healing period when jaws are wired shut, the oral and maxillofacial surgeon prescribes a nutritional liquid or pureed diet, which will help the healing process by keeping the patient in good health. After discharge from the hospital, the doctor gives the patient instructions on continued facial and oral care.

Don't Treat Any Facial Injury Lightly

While not all facial injuries are extensive, they are all complex since they affect an area of the body that is critical to breathing, eating, speaking and seeing. Even in the case of a moderately cut lip, the expertise of the oral and maxillofacial surgeon is

indispensable. If sutures are needed, placement must be precise to bring about the desired cosmetic result. So a good rule of thumb is not to take any facial injury lightly.

Prevention — The Best Policy

Because avoiding injury is always best, oral and maxillofacial surgeons advocate the use of automobile seat belts, protective mouth guards, and appropriate masks and helmets for everyone who participates in athletic pursuits at any level. You don't have to play at the professional level to sustain a serious head injury. New innovations in helmet and mouth and face guard technology have made these devices comfortable to wear and very effective in protecting the vulnerable maxillofacial area. Make sure your family is well-protected. If you play the sport, make the following safety gear part of your standard athletic equipment.




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Football: Helmets with face guards and mouth guards should be worn. Many of the helmets manufactured for younger players have plastic face guards that can be bent back into the face and cause injury. These should be replaced by carbon steel wire guards.

Baseball: A catcher should always wear a mask. Batting helmets with a clear molded plastic face guard are now available; these can also be worn while fielding.

Ice Hockey: Many ice hockey players are beginning to wear cage-like face guards attached to their helmets. These are superior to the hard plastic face masks worn by some goalies, as the face guard and the helmet take the pressure of a blow instead of the face. For extra protection, both face and mouth guards — including external mouth guards made of hard plastic and secured with straps — can be worn.

Wrestling: More and more high school athletic associations require wrestlers to wear head gear. A strap with a chin cup holds the gear in place and helps steady the jaw. Recently, face masks have been developed for wrestlers, who should also wear mouth guards.

Boxing: Mouth guards are mandatory in this sport. A new pacifier-like mouth guard for boxers has been designed with a thicker front, including air holes to aid breathing.

Lacrosse: Hard plastic helmets resembling baseball batting helmets, with wire cage face masks, are manufactured for this sport.

Field Hockey: Oral and maxillofacial surgeons recommend that athletes participating in this sport wear mouth guards. Goalies can receive extra protection by wearing Lacrosse helmets.

Soccer: Soccer players should wear mouth guards for protection. Oral and maxillofacial surgeons advise goalies to also wear helmets.

Biking: All riders should wear lightweight bike helmets to protect their heads. Scooters and Skateboarders: Bike helmets are also recommended for those who ride two-wheeled scooters and skateboards.

Skiing and Snowboarding: The recent surge in accidents among skiers and snowboarders has encouraged many safety conscious participants to wear lightweight helmets that will protect the maxillofacial area in the event of a fall or crash.

Horseback Riding: A helmet and mouth guard are recommended for horseback riding, particularly if the rider is traveling cross-country or plans to jump the horse.

Basketball, Water Polo, Handball, Rugby, Karate, Judo, and Gymnastics: Participants in these sports should be fitted with mouth guards.

A Word about Mouth Guards

New synthetic materials and advances in engineering and design have produced mouth guards that are sturdier yet lightweight enough to allow the wearer to breathe easily. Mouth guards can vary from the inexpensive "boil and bite" models to custom-fabricated guards made by dentists, which can be adapted to the sport and are generally more comfortable.

A mouth protector should be evaluated from the standpoint of retention, comfort, ability to speak and breathe, tear resistance and protection provided to the teeth, gums and lips.

There are five criteria to consider when being fitted for a mouth protector. The device should be:

1. fitted so that it does not misalign the jaw and throw off the bite;
2. lightweight;
3. strong;
4. easy to clean; and
5. should cover the upper and/or lower teeth and gums.

By encouraging sports enthusiasts at every level of play to wear mouth guards and other protective equipment, oral and maxillofacial surgeons hope to help change the "face" of sports.

In the event a facial or mouth injury occurs that requires a trip to the emergency room, the injured athlete, his parent or coach should be sure to ask that an oral and maxillofacial surgeon is called for consultation. With their background and training, oral and maxillofacial surgeons are the specialists most qualified to deal with these types of injuries. In some cases, they may even detect a "hidden" injury that might otherwise go unnoticed.