
ORBITAL FRACTURES

Your orbital fracture involves:

- | | | | |
|-------|------------------------|-------|----------------------------|
| _____ | The roof | _____ | The floor |
| _____ | The lateral wall | _____ | More than 50% of the floor |
| _____ | The medial wall | _____ | The orbital rim |
| _____ | Other facial fractures | _____ | Muscle entrapment |

Seven bones of the face form a box that surrounds and protects most of the eye. This box is called the *orbit*. An *orbital fracture* is a break in one or more bones that surround the eye. A computed tomograph ("CT scan" or "CAT scan") is essential to fully characterize any orbital fracture.

Above and behind the orbit is the brain. It is very uncommon for adults to break the back or *roof* of the orbit; but if they occur, such fractures must usually be repaired .

The outside (*lateral*) edge of the orbit borders the temple region. Lateral wall fractures require tremendous force, are often associated with other facial fractures, and are commonly repaired, as most of us tend to lean or sleep against our lateral orbital walls, and repair of these fractures decreases the duration of tenderness.

The front edge of the orbit is called the orbital *rim*. Displaced fractures of the rim often cause significant changes in the orbital volume, causing the eye to appear sunken into the face. Rim fractures are often repaired for comfort, volume preservation, and to avoid palpable bumps in the bones around the eye.

The walls toward the nose and underneath the eye border the sinus cavities and are called the *medial wall* and *floor*, respectively. Fractures of these areas are most common, but not all such fractures need to be repaired. In general, fractures that involve greater than 50 % of the floor or greater than 30 % of the floor in conjunction with large fractures of the medial wall are likely to cause the eye to sink backward or downward and will probably require repair.

Indications for *urgent repair* (as soon as possible) include capture or entrapment of an eye-moving muscle into a fracture site (especially in young children), a displaced roof fracture, or a bone fragment pushing on the eye. Indications for *delaying repair* for at least 4 - 6 weeks include decreased vision from optic nerve injury, recent eye surgery, or significant injury to the eye. In all other cases, the optimum time for repair is 1 - 2 weeks after injury. Repairs beyond this time are certainly feasible in experienced hands, but they require more work.

Floor fractures will often cause a **numbness** along the cheek, side of the nose, and the lip. Often, the normal nerve function will return after as long as 6 - 9 months. In some cases, repair of a floor fracture may improve nerve function, but can, in rare instances, worsen it.

If you have an orbital fracture, **DO NOT BLOW YOUR NOSE** for at least 3 weeks. You may cause air to become trapped behind the eye, possibly damaging your vision. Avoid any activity that will turn your face red with exertion for 2 weeks, as you could cause a hemorrhage behind your eye. To speed the resolution of your bruises, apply ice for 48 hours and then warm compresses. Special cases may require antibiotic therapy as well.

For your fracture(s):

_____ Surgery **IS** recommended

_____ Surgery is **NOT** recommended at this time

_____ A waiting period of _____ days is recommended for further evaluation

SURGERY

If surgery is recommended to you, and you chose to have your fracture repaired, you should know the following:

95 % of all orbital fractures can be repaired with a skin incision that is less than 1/4 of an inch long at the corner of your eye. Surgery is performed under general anesthesia and requires 30 - 90 minutes of operating time, depending upon the severity of the injury. The majority of patients go home the same day or stay in the hospital overnight

Your fracture can be repaired with many materials. For your particular fracture, we suggest:

_____ Medpor (a synthetic bone that becomes integrated into your body)

_____ Titanium / Vitallium (Metal) mesh

_____ Your own bone or cartilage harvested from _____

_____ Other

For you to make appropriate decisions about your own body and health, it is imperative that you fully understand your situation and options. If, at any time, you have any questions, we encourage you to contact our Clinical Coordinator at (713) 795-0705.