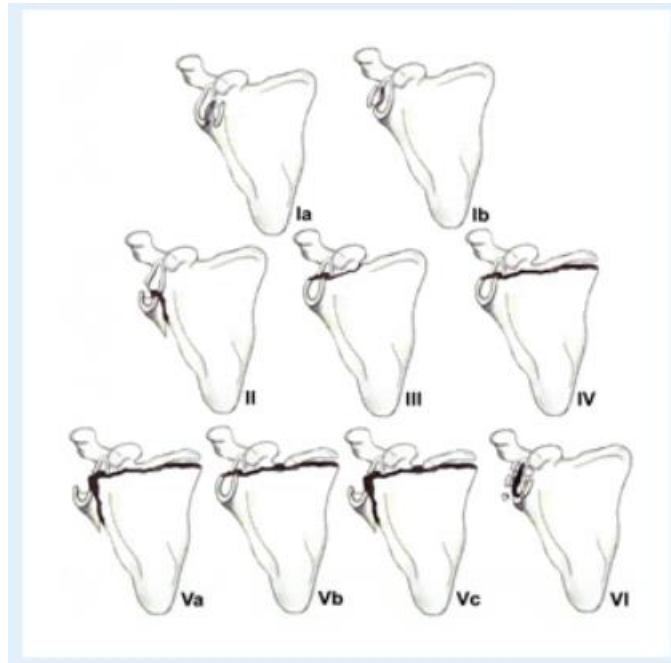


Glenoid Fracture of the Shoulder

The glenoid (socket) of the shoulder joint is a portion of the scapula bone (shoulder blade) that articulates with the humeral head (ball) of the glenohumeral (shoulder) joint. The glenoid can be fractured (broken) through injury and is usually associated with a significant trauma. The image below shows a classification system for different common glenoid fractures.



Frequent Signs and Symptoms

- Severe arm pain at the time of injury
- Tenderness, swelling, and (later) bruising of the arm
- Later, swelling and bruising in the elbow and hand
- Visible deformity if the fracture is complete and bone fragments separate enough to distort normal body contours
- Numbness, coldness, or paralysis below the fracture involving the forearm or hand from pressure on or stretching of blood vessels or nerves (rare)

Etiology (Causes)

- Direct blow or force to the arm bone
- Indirect stress due to falling on an outstretched hand
- Violent muscle contraction
- Shoulder dislocation
- Severe trauma, such as a motor vehicle accident, or other high-energy injury



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Risk Factors

- Contact sports such as football and rugby
- High risk activities such as skiing or auto racing
- History of bone or joint disease; previous immobilization of the arm
- Poor physical conditioning (strength and flexibility)

Prevention

- Appropriately warm up and stretch before practice or competition
- Maintain appropriate conditioning:
 - Cardiovascular fitness
 - Arm strength
 - Flexibility and endurance
- Wear proper protective equipment and ensure correct fit

Outcomes

With appropriate treatment and normal alignment of the bones, fracture healing can be expected. Surgery may be necessary to realign fractures that are displaced. Average healing time is 6 to 8 weeks in adults and 4 to 6 weeks in children. Full recovery requires physical therapy for around 4 to 6 months. Outcomes and function vary based on the severity of the fracture.

Potential Complications

- Nonunion (fracture does not heal)
- Malunion (heals in a bad position)
- Chronic pain, stiffness, loss of motion, or swelling of the shoulder or elbow
- Excessive bleeding in the arm, causing pressure and injury to nerves and blood vessels (uncommon)
- Heterotopic ossification (calcification of the soft tissues)
- Injury to the nerves of the upper extremity due to stretching from the fracture causing numbness, weakness, or paralysis (rare)
- Post-traumatic arthritis, injury to the cartilage from the fracture can lead to progressive wear of the cartilage and arthritis

Treatment Considerations

If the bones are in appropriate alignment (position), the initial treatment consists of ice and medications to help relieve pain. Immobilization in a sling for 6 weeks is recommended to protect the bones while they heal. Severe fractures that are displaced (not in appropriate alignment) require surgery to restore the fracture fragments to their proper position and promote healing. Surgery usually includes repositioning the bones and holding the alignment with sutures or plates and screws. After immobilization (with or without surgery), stretching and strengthening of the injured and weakened joints (elbow and shoulder) and surrounding



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muscles is necessary. These usually are done with the assistance of a physical therapist or athletic trainer. Recovery may require 4 to 6 months.

Possible Medications

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Strong pain relievers may be prescribed post-surgically as necessary. Use only as directed and use only as much as you need.

Modalities (Cold Therapy)

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 15 to 20 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.

Notify My Office If Symptoms Worsen



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