Humerus Fracture

The three bones that join together to create the elbow can fracture in a number of different ways. A humerus fracture is just one type of fracture to the elbow. It is located at the end of the upper part of the arm bone forming the upper portion of the elbow. These types of elbow fractures aren't common. They account for around 2 percent of all fractures found in adults. The elbow is a complicated joint and these fractures often end up involving both of the bones in the forearm, as well as the humerus.

These fractures are often caused by one of two things. A direct blow to the area can happen at any point during a fall or being hit by a hard object. Indirect fractures can occur when a person lands on their outstretched arms with elbows locked in a straight position. The ulna ends up being driven into the humerus, which causes it to break.

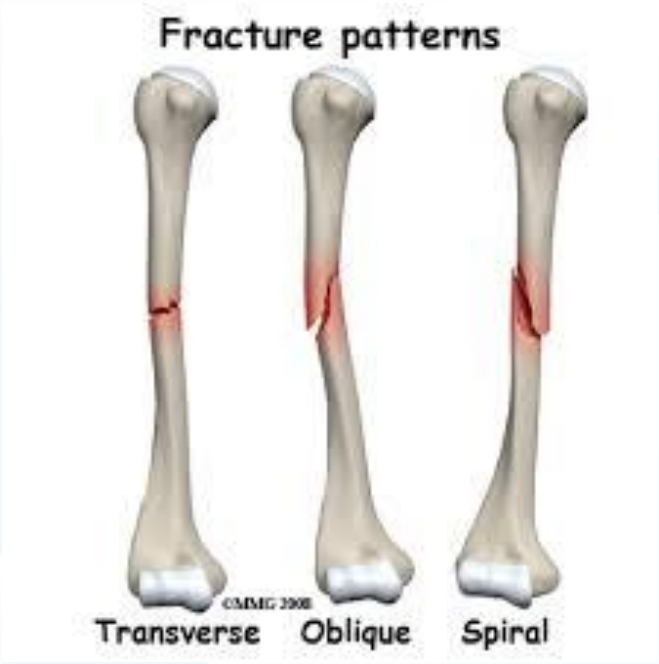
However, not all humerus fractures are located at the elbow end, they can occur in the middle of the bone (mid-shaft) and also towards the top part of the humerus. It's also reasonably common to fracture the humeral head which is basically the ball of the shoulder joint.

Most commonly injuries occur from a fall, often during sports. Contact sports are high risk, and snow sports are also high risk for these types of fractures.

Humerus Fracture Anatomy

Three bones make up the elbow joint, the humerus, ulna and radius. It straightens and bends similar to a hinge. It is important for being able to rotate the forearm: the ability to turn the hands down or up. The humerus connects your forearm to your shoulder. The actual elbow has three portions of bones in the arm:

- The distal humerus lies at the center part of the elbow, known as the hinge.
- The radial head helps to move around the distal humerus and rotates whenever the wrist is turned down or up.
- The olecranon is the portion of the ulna cupping the humerus end and rotating it like a hinge.



At the end of the humerus you form your shoulder joint which is made up of the ball and socket, the ball being the humeral head, and the socket being part of the shoulder blade.

If you suspect a fractured humerus, you must go to hospital for further examination and the doctor may decide to X-ray your arm.

How to Treat a Humerus Fracture:

1. **Sling**
   If the fracture isn't displaced, a simple sling or splint can be used to hold the elbow properly in place throughout the healing process. The healing process will be closely monitored and x-rays will have to be frequently taken. If none of the fragments are in an improper position after a few weeks have passed, you might be able to slowly begin moving the elbow. Nothing can be lifted with the injured arm for at least a few weeks.

2. **Physical Therapy**
   Long periods of casting or splinting can help to improve the condition, but the elbow can become stiff and need an extended period of therapy to help regain movement once the cast has been removed.

3. **Surgery**
   Surgery can be used to reduce the fracture, and align the bone. Surgery will be used if the fracture is more complicated and there is a change of non-union without it. Usually screws and a plate is used to secure the bone. Rehabilitation can take 3-6 months. If the humeral head is fractured, this is more complicated. Sometimes it may be possible to repair the fracture, but often it is not, and natural healing would be allowed to take place and it would be monitored. However it should be noted that sometimes the fracture changes the shape of the ball and socket joint and this does not allow good range of motion, and you may be limited with your shoulder mobility to around 90 degrees (I.e. being able to lift your arm to shoulder level).

Tips:

- After surgery, motion exercises can begin as early as the next day. Performing the exercises multiple times per day is important to increasing strength and range of movement.
- Refrain from lifting anything with the injured arm for at least six to 12 weeks.
- If you find that numbness or weakness in the hand occurs after surgery, the condition will often clear up over the course of time as the ulnar nerve heals.
- When falling, try to refrain from stretching your arm out in an effort to catch yourself.
- After surgery, you might lose some motion in the arm, which is normal to some extent.
- Always seek help from a therapist to rehabilitate your arm. This will prevent stiffness and reduce inflammation. Later the rehabilitation will also allow you to regain strength to your arm.