Western Health and Social Care Trust

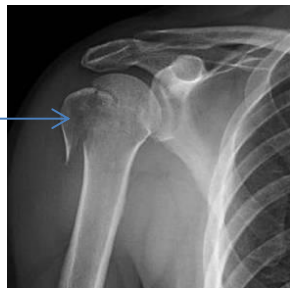
Fractured Humerus

Patient Information

What is a fractured Humerus?

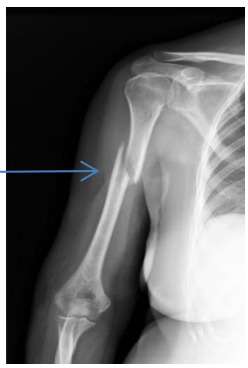
A fractured humerus is a break in the bone between your shoulder and elbow. Humeral injuries are commonly divided into three types of fractures based on location. The top of the bone is called the proximal humerus, the bottom of the bone is called the distal humerus and the portion in between is called mid-shaft. The information below relates to **proximal & mid-shaft fractures** and does not apply to distal fractures which are often managed separately.

1. Proximal humerus fractures:



These are the fractures which occur close to the shoulder joint and can therefore involve tendons of the rotator cuff – a group of muscles around your shoulder which have an important role to play in range of movement. Treatment of these injuries may depend on the position of these tendon insertions.

2. Mid-shaft fractures:



These fractures occur away from both the shoulder and elbow joint and most heal without the need for surgery. There is potential for nerve damage due to the radial nerve which passes around the mid-portion of the bone (approximately 18% of people).

What are the causes of humeral fracture?

Humeral fractures have many potential causes but are most commonly associated with falls, either onto an outstretched hand or as a result of direct impact to the shoulder. Other causes may include road traffic accidents or following a shoulder dislocation.

What are the symptoms?

Most patients present to A&E with moderate to severe pain that increases with movement and for this reason most people have their arm fixed at their side. Other symptoms may include:

- Swelling
- Bruising
- Deformity (common in presence of dislocation)
- Localised tenderness to touch
- Potential nerve injury

Treatment following injury:

Initial x-rays are taken in order to confirm the presence of fracture and to determine the extent and location of injury. Management of the fracture is based on a number of factors including:

- Location
- Severity – 1-4 part fractures
- Displaced / non-displaced
- Presence of other associated injuries e.g. shoulder dislocation

The majority of humeral fractures are non-displaced (~ 80%) and treated conservatively (i.e. without surgery). More complex injuries may require surgical intervention to realign the bones and allow them to heal is a better position.

What are the treatments options following fracture?

Most fractures are managed conservatively which involves a period of immobilisation in a sling – often 4 weeks, although this can vary depending on your fracture type. Your x-rays will be reviewed at virtual fracture clinic by an orthopaedic consultant and if he is happy that the bone is healing without any complications you will be contacted by the nurse in clinic and advised to begin gentle exercise and wean from your sling. At this stage you will be referred to physiotherapy to commence rehabilitation.

Total healing time is typically 6-12 weeks for proximal humeral fractures. Early bone healing usually begins at 4-6 weeks.

What can I do to help myself?

While you await your physiotherapy appointment, you are encouraged to start to wean from the sling and begin early exercise to help regain movement and minimise stiffness. At this stage most people will experience pain as they begin to exercise and this can last a number of weeks or even months. For this reason it is advised that you take adequate pain relief in order to manage your pain and most importantly, allow early mobilisation of the shoulder In order to allow you to return to normal daily activities. Below are a series of basic exercises which you can carry out while you await your out-patient appointment.

Pendulum exercises:

In forward lean and holding for support with your unaffected arm, allow your arm to hang freely. Gently move your affected shoulder in the directions shown below; begin with small movements and increase as you are able

a) Clockwise / anti-clockwise b): front to back c) side to side

Active-assisted:

Using a stick / cane allow your unaffected arm to assist with the movements shown below.

Isometric exercises:

Gently press your hand into a wall as shown. Place a towel roll between hand and wall; do not drop while performing exercise. Maintain a bent elbow the entire time. Perform in each direction shown.

Physiotherapy:

This will involve rehabilitation with your physiotherapist who will work with you to regain both range of movement and muscle strength at your shoulder in order to return to your daily activities. Depending on the location and severity if your fracture, rehabilitation can take anything from weeks to a number of months with many patients experiencing ongoing pain for a long period following their injury.

When can I return to work?

Return to work depends on the type of work involved and if you are able to wean from the sling. This is usually dependent on having adequate shoulder range of motion and strength as well as stable healing on x-ray. The same criterion is used to determine if you can return to sports.

Prognosis?

Not all patients fully recover and loss of shoulder mobility is a common complication post-fracture alongside ongoing pain. This is more likely to develop in those patients who do not perform early

range of motion exercises during recovery. However, even in the presence of severe fractures, most patients are able to return to being independent with their daily activities.

Who can I contact for more information?

If you require any further information you can contact us on the details below:

Fracture clinic (Clinic 3)

Outpatient department

Altnagelvin Hospital

Tel: 02871 345171 Ext: 213637