

4.5 Humerus and shoulder

Most common fracture is the surgical neck in the osteoporotic patient usually after FOOSH. Always document distal neurovascular deficit particularly if shaft fracture or a dislocation of the shoulder

SITE OF INJURY	LOOK OUT FOR	1e MANAGEMENT	DISPOSAL
# clavicle	associated chest injury	BAS	Ortho TC
# scapula	specific xrays to confirm	BAS	Ortho TC
AC joint strain / dislocation	stress views to confirm	BAS	Ortho TC
sterno-clavicular jt dislocation	associated chest injury		Ortho 2C
dislocation - no #	beware posterior dislocation. lateral xray necessary. circumflex nerve injury	reduce (Milch / Kocher / Hippocratic). BAS held to body	Ortho TC
dislocation with #	beware posterior dislocation. lateral xray necessary. circumflex nerve injury		Ortho 2C
# greater tuberosity		BAS	Ortho TC
surgical neck humerus	associated dislocation		Ortho 2C
# shaft humerus	radial nerve injury	U slab, sling, body bandage	Ortho TC
slipped upper humeral epiphysis		BAS	Ortho TC

- Fractured clavicle is common in both adult and child. Treat with a broad arm sling.
- Look out for dislocation, which is usually very painful. You must obtain two views of the joint, otherwise dislocations may be missed. Reduce as soon as possible.
- Acromio-clavicular dislocation is not usually serious, though will require immobilizing initially.
- Be vigilant for acute calcific tendonitis, which often affects young fit people. It is characterised by severe, spontaneous shoulder pain, which prevents sleep. The X-ray shows a calcified area below the acromion. Give indomethacin and arrange a steroid

- injection as soon as possible (best to send to A&E RC). More chronic shoulder pain is complex; generally such patients should go to their GPs for treatment, though an X-ray may help to reassure them that nothing serious is being missed. Physiotherapy does not usually help these patients.

Dislocation of the shoulder

- This common injury is usually due to a forced external rotation of a fall on to the shoulder. The humeral head usually comes to lie anterior and slightly inferior to the glenoid.
- Examination show a obvious asymmetry with a step off below the acromion . Neurovascular complications can occur with this injury and it is essential to document the distal function as soon as the patient is seen.
- Patients who have had previous dislocations often dislocate with minimal trauma or even turning over in bed! If this is the case an Xray may not be required. All other cases will need Xrays and all cases need Xrays once reduction has occurred.
- Beware the Fracture dislocation of the shoulder. If the neck of the humerus is fractured and there is a dislocation then reduction may leave the humeral head in the dislocated position and the shaft of the humerus in the glenoid! Refer to orthopedics
- Treatment involves reduction under analgesia/sedation. Never use opiates and sedatives at the same time .

There are several methods used for the reduction of the shoulder:

Kochers

- This should not be used in the elderly osteoporotic patient as it may lead to a fracture of the humerus
- Lie the patient flat
- Provide adequate analgesia; sedation may not be necessary
- Flex the elbow to 90 deg and slowly externally rotate the smoulder. This has to be done slowly an das the patient relaxes more external rotation will be achieved. Never force this.
- Slowly adduct the upper arm with the shoulder still externally rotated
- Then internally rotate the shoulder
- Reduction may occur at any point.
- Check the neurovascular function and place in a broad arm sling.
- Re-x-ray.

Modified Milch method

- With adequate analgesia and sedation slowly abduct the arm to 110 deg
- Apply traction with an assistant provides counter traction
- A slight amount of external rotation may be necessary
- Reduction may occur at any point.
- Check the neurovascular function and place in a broad arm sling.
- Re-x-ray.