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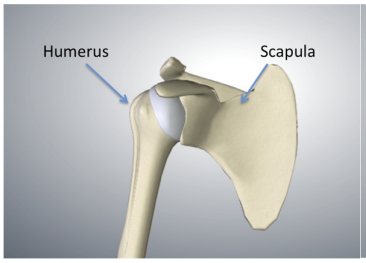
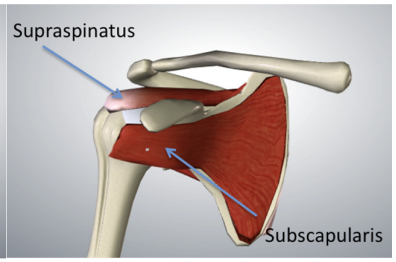
PROXIMAL HUMERAL FRACTURES, ORIF PROXIMAL HUMERUS & REVERSE SHOULDER ARTHROPLASTY FOR FRACTURE.

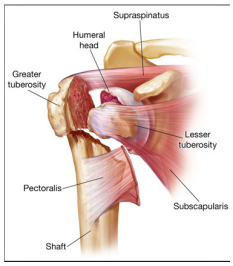
This information aims to help you understand your condition and gain maximum benefit from your treatment. It covers the most commonly asked questions. However, every individual is different, and you should ask as many questions as you like.

SHOULDER ANATOMY

The shoulder (glenohumeral joint) is a ball and socket joint. The ball is at the top of the arm bone (the humerus). The socket is the glenoid which is part of the shoulder blade (scapula).
Surrounding the joint are the 4 tendons of the rotator cuff. They run from the shoulder blade to the top of the arm bone. The rotator cuff keeps the ball centred on the socket and helps to control shoulder movement. 3 of the rotator cuff tendons are attached to the greater tuberosity (the larger bump on the upper part of the humerus. The other rotator cuff tendon is attached to the lesser tuberosity (the smaller bump on the front of the upper humerus).







PROXIMAL HUMERUS FRACTURES

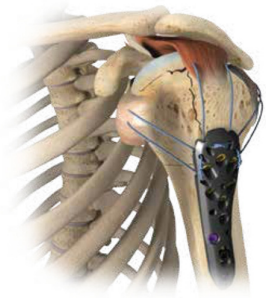
Usually occur either from a simple fall (usually in a middle aged or elderly person) or from a 'high energy' injury such as a car crash in a younger person.
The most important factors in treatment planning are the 'displacement' (how far the pieces are away from each other) and the amount of 'comminution' (how many pieces there are).
The majority of proximal humeral fractures can be expected to heal even if the pieces are somewhat displaced. In the long term if the fracture unites then little pain is expected but range of motion may be limited. The amount of limitation of motion is largely dictated by the position of the tuberosities (the pieces of bone with the tendons attach).
The decision when to consider surgery depends on a lot of factors such a patient age, functional requirements, bone quality, fracture displacement and comminution.

ORIF PROXIMAL HUMERUS

The aim of this surgery is to bring the fracture fragments back together in their normal positions and to hold them there with metalwork and sutures (stitches). The metalwork may be plate and screws attached to the outside of the bone or an intramedullary nail (inside the bone). ORIF is performed in younger patients with bad injuries and older patients with fractures in which the tuberosities are not affected. If the tuberosities are broken and displaced, bone graft is usually added to help them to heal. This is either taken from the patients' hip (well away from the hip joint) or from 'allograft' (donated) bone.

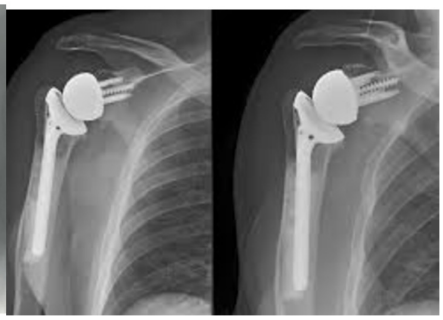
REVERSE TOTAL SHOULDER ARTHROPLASTY WITH TUBEROSITY RECONSTRUCTION WITH BONE GRAFT

Both the ball and socket part of the shoulder joint are replaced (it is called a 'reverse' because the ball is turned into the socket and the socket in turned into the ball). The design of this means that the tuberosities with the tendons attached are not needed to preserve shoulder function. But the tuberosities are repaired to the humerus with sutures (stitches) to try to make the result of surgery as good as possible. Because this is a replacement surgery it is only done in older patients with fractures that involve the tuberosities. Bone graft is added to the tuberosities help them to heal. This is taken from the part of the humerus that is replaced.



ORIF with plate

ORIF with nail



Reverse total shoulder

THE OPERATION

You will come to hospital on the day of surgery. You will have a general anaesthetic. A nerve block may also be used. The surgery usually takes 1-3hrs.
A proximal humeral nail is generally done through a number of small cuts on the arm. Fixation with a plate and reverse shoulder arthroplasty are done through a larger cut on the front of the shoulder.

AFTER SURGERY

ORIF: You will stay in hospital 1 night after surgery.
Reverse shoulder arthroplasty: You will stay in hospital 1-2 nights after surgery.
Time in a sling depends on the injury pattern and the operation
The speed of recovery is variable. It can be rapid or seem slow. Most improvement occurs in the first 6 months.
The end of recovery is around 12-24 months after surgery.
Further general information is available in the 'Information for patients undergoing surgery' leaflet.

APPOINTMENTS AFTER SURGERY

10-14 days; 6 weeks, 3 months, 6 months, 12 months.

REHABILITATION EXERCISES

Specific rehabilitation exercise sheets will be given to you in hospital and during your follow-up visits.
Only do the exercises shown to you in hospital and demonstrated to you in clinic. Do not remove the sling until you are told to do so. Your therapist will suggest whether you can do the exercises yourself at home or would be better with regular supervised physiotherapy sessions. You will need to get into the habit of doing the exercises several times a day for around 6 months.

MILESTONES AND RETURN TO WORK / SPORTS

Depend on the injury pattern and the operation. Details are as per the rehabilitation sheet

DRIVING

You cannot drive while you are using a sling.
Once you have been told that you can remove the sling you can drive when you feel that you have full control of the vehicle. It is your responsibility to make this decision.

LIKELY OUTCOMES

The main aim of surgery is to improve pain and function. Range of motion and strength should be close to normal though this is more difficult to predict.
Patient satisfaction rates after surgery are around 95%. No surgery will result in a joint that feels and functions completely normally after a proximal humeral fracture