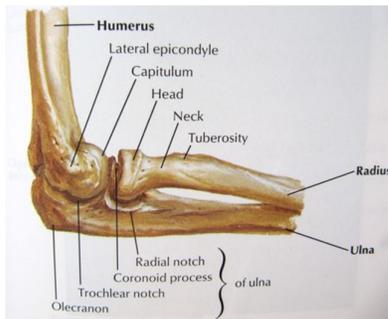


## HUMERAL HEMIARTHROPLASTY; TOTAL ELBOW ARTHROPLASTY

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.

### ELBOW ANATOMY

The elbow joint is a type of hinge joint. It bends (flexion) and straightens (extension), as well as rotating to position your palm up or down. The joint is formed by the end of the upper arm bone (distal humerus) together with the 2 forearm bones (the radius and the ulna). The point of your elbow is the end of the ulna (the olecranon). The triceps muscle (the bulky muscle at the back of your upper arm) covers the distal humerus and attaches to the olecranon. Two important ligaments help to hold the bones together (the medial ulnar collateral ligament, MUCL; the lateral ulnar collateral ligament, LUCL). The ulnar nerve (the 'funny bone' nerve) sits in a groove behind the 'funny bone' on the inside of the elbow



### DISTAL 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).

If the articular surface of the joint is displaced then surgery is generally needed.

The surgery is almost always done through an open cut on the back of the elbow. It is then possible to move around to the sides of the elbow. The ulnar nerve needs to be identified and protected during the surgery and is gently moved around to allow the metalwork to be placed (ulnar nerve neurolysis). Sometimes the nerve needs to be moved towards the front of elbow as well (ulnar nerve transposition).

### ORIF DISTAL HUMERUS AND DISTAL HUMERAL HEMIARTHROPLASTY

ORIF is by far the most common operation (open reduction internal fixation).

The aim of this surgery is to bring the fracture fragments back together in their normal positions and to hold them there with metalwork.

If the articular surface is too badly damaged to be repaired it can be replaced (distal humeral hemiarthroplasty). This is only rarely needed.

Sometimes it is possible to leave the triceps attached to the olecranon and to work around it.

However if the fracture is more severe the triceps needs to be moved out of the way. This is done by cutting the olecranon with a saw (an olecranon osteotomy) and flipping it and the triceps out of the way. At the end of the ORIF or replacement operation the osteotomy is repaired with a plate.



ORIF



Hemiarthroplasty Total Elbow Arthroplasty

## TOTAL ELBOW ARTHROPLASTY

This replacement operation is only performed if the MUCL and LUCL are so badly injured that they cannot be repaired. It involves replacing the distal humerus and also the articular surface of the ulna.

## THE SURGERY

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 2-3hrs

## AFTER SURGERY

You will stay in hospital 1-2 nights after surgery.

You will see a physiotherapist before you leave hospital.

Time spent in a sling or splint depends on the injury and the surgery.

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

7-10 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. 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 & RETURN TO WORK/SPORTS

Dictated by procedure & whether ligament repair was required

See specific rehabilitation sheets (ORIF humerus; ORIF humerus & ligament repair; Distal humerus hemiarthroplasty; Total elbow arthroplasty)

## 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.

## LIFTING

In the long-term this is dictated by whether an ORIF or a total elbow arthroplasty or a distal humerus hemiarthroplasty was required

## 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 distal humeral fracture.