



CONDITION

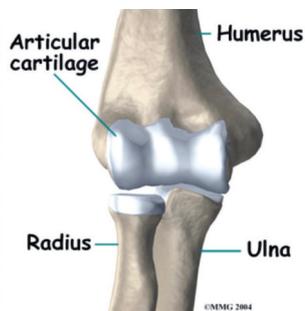
What are Elbow Fractures?

An elbow fracture might include any or all of the bones near the joint. Treatment and prognosis is very variable.

Which bones are commonly broken in the elbow?

The elbow joint is made up of three bones; the far end of the upper arm bone called the humerus and the near end of the two forearm bones, the radius and the ulna.

Normal Elbow to show the joint



Any of these bones can be broken. The break might be described as 'intra-articular' (involving the smooth joint surface) or 'extra-articular' (not involving the joint). They can be displaced (out of the normal position) or undisplaced (well lined up). Sometimes you might hear them described as 'comminuted'. This means the fracture is in several pieces. Certain fracture patterns are more common in certain age groups.

How do I know I have broken my elbow, not just sprained it?

A displaced fracture may be very obvious with deformity, swelling, bruising and pain. Undisplaced fractures can be quite difficult to pick up without xrays. If in doubt obtain expert advice early on to make sure you are put on the path to recovery as quickly as possible.

How is the diagnosis made?

Xrays usually confirm the diagnosis.

Some fractures are difficult to see, particularly in children. This is because much of the joint in small children is not seen on the Xray as the bones don't have much calcium in them until they have finished growing. If there is doubt injecting dye into the joint will outline the growing bones. This is called an arthrogram. In small children this is often done with them asleep in theatre and any necessary treatment can then be undertaken immediately.

In some cases the fracture pattern is quite complicated and further details can be obtained using computerised tomography (CT) scans and/or magnetic resonance imaging (MRI) scans. This will help your surgeon plan the best treatment for you.

What treatments are available for elbow fractures?

All elbow fractures are helped by elevation of the limb (to get the swelling down) and painkillers. Application of ice packs can sometimes also help.

Many elbow fractures can be treated without an operation but good advice regarding appropriate support and exercises to regain maximum function as quickly as possible is important. The adult elbow stiffens up very quickly if kept still so early movement is often the key to a good recovery.

Some fractures in the elbow do not do well if left to heal by themselves. Generally these are ones that involve the joints and those that are very badly displaced (out of their normal position). Under these circumstances options that might be considered include:

1. Manipulation Under Anaesthesia (MUA). This involves moving the broken bones about to try and realign them whilst you are asleep. The new position might be supported with small wires through the skin into the bone (K wires) and a plaster. This treatment is most frequently used for some children's fractures.
2. Open Reduction and Internal Fixation (ORIF). This involves opening the skin and tissues around the bone and putting the bone bits back together, like a jigsaw puzzle. After this the bone fragments are often held with plates and screws inside, on the bone.

3. Repair of stabilising ligaments. This is done if necessary at the same time as fixing the bones.

4. Replacing damaged parts. This is done for the most severe fracture types in adults only. The top part of the radius (the circular part on the picture above) can be replaced alone (radial head replacement). In older patients with soft bone in multiple small fragments replacing the whole elbow joint can occasionally be the best option (total elbow replacement).

5. External fixation. This involves using pins into the bone connected to bars and a hinge outside the arm. The whole thing looks rather like a Meccano set when it is finished. This is used in extreme cases to support repairs of injuries involving both bones and stabilising ligaments

After all these operations swelling and stiffness of the whole arm can be a problem. Regular exercises for all the joints to regain maximum function as quickly as possible are essential. Your surgeon will advise you regarding this.

What is the outcome after an elbow fracture?

This is very variable and depends on the age of the patient, the seriousness of the injury and the exercises undertaken after the injury. The vast majority of injuries do very well. The commonest problem is stiffness, often with a loss of the last bit of elbow extension (straightening out of the arm). Your surgeon will advise you regarding the prognosis for your particular injury pattern.