

**MIKE FOSTER**  
**Hand Wrist and Elbow Surgeon**  
**Non Union of a Hand Fracture**  
**Protocol**

**Problem**

- A fracture of one of the hand bones has either failed to heal.

**Cause**

- The most common cause for non union is related to the degree of trauma at initial injury.
- The complicating factors include smoking, diabetes and issues with splinting or plastering.

**Diagnosis**

- The non union site will be painful.
- Plain x-rays usually will identify the problem. Occasionally CT scan or MRI scan will delineate the problem further.

**Treatment**

- Operation to restore the anatomy, through ORIF (Open Reduction and Internal Fixation)
- Non unions often require bone grafting, - either from the distal radius, or iliac crest, to fill voids related to the collapsed bone.

**Potential Complications**

- Infection, haematoma, stiffness. The bone can still fail to heal or heal in a slightly malunited position.

**Post Op Care**

- Analgesia, elevation, casting or splinting.
- Wound review at two weeks
- Mobilisation under the care of hand therapists if fixation is stable
- Union usually takes six to eight weeks