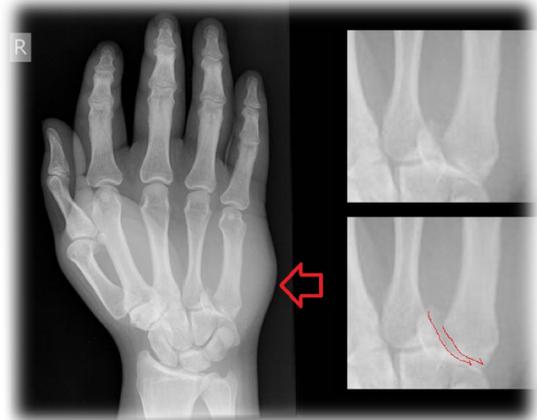# Metacarpal Base Fractures

## Introduction
Many metacarpal base fractures do well without needing surgery.

## Symptoms

- Pain
- Swelling
- Bruising
- Deformity at the site of injury
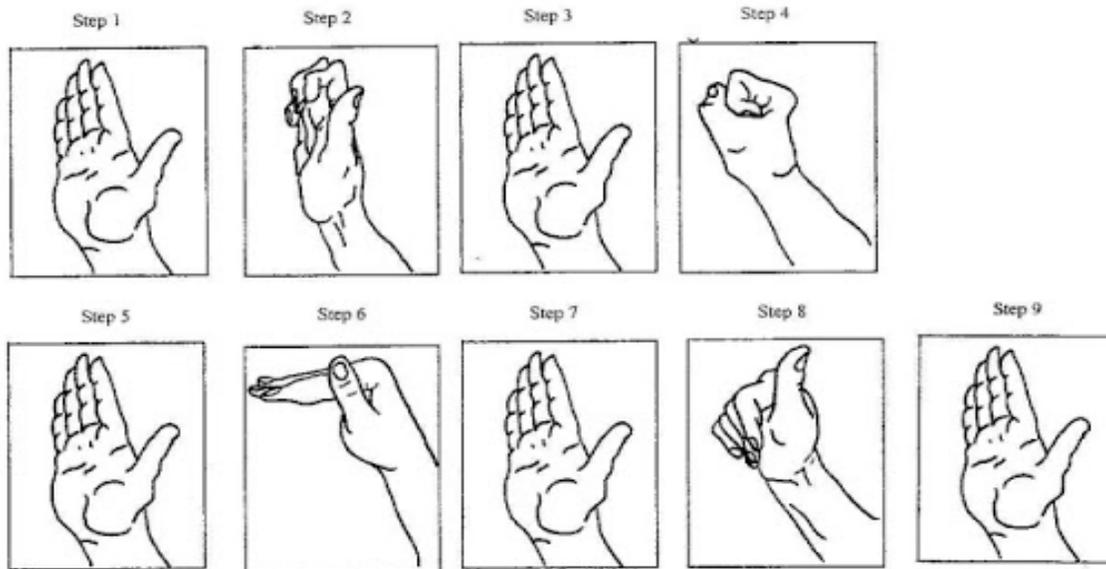- Difficulty moving the hand and gripping



## Treatment
Metacarpal base fractures can often be managed without surgery as long as the joint(s) affected are stable.  A splint or short-term plaster cast may be used.  If the bone has shortened or moved out of position (subluxed) it may require surgery. This is often managed by *manipulation* back into position under a regional anaesthesia which is when you remain awake, but your arm is paralysed and made pain free during the operation and for several afterwards.  It is now considered much safer than a traditional general anaesthesia where you are put to sleep, but of course is not always suitable for everyone.  Once the bones have been put back in the right place (reduction), they often need to be kept in position using a metal wire (stabilisation).  These wires are place through tiny cuts in the skin, and can be removed easily in the clinic at around 4 weeks.  During this time your hand will be placed in a plaster cast.  If the fracture is more complex or the bones cannot be reduced using a simple manipulation, then more formal surgery and internal fixation with plates and screws may be needed.

Occasionally these injuries may present late preventing simple strategies being successful.  At which point a balance view is taken whether the risks of more complex surgery is greater than the risk of arthritis in years to come if the injury is left untreated.  Of course, in such difficult and uncommon situations, your hand surgeon will carefully explain all the options and ramifications of any decisions being taken.

## Hand Therapy

Try and perform the exercises below to prevent stiffness you may need to take pain relief to do these comfortably. If you are struggling to regain range of movement and function, we may need to arrange hand therapy.



## How long will I be off work and when can I drive?

This depends on your job. In general terms, your hand will take six to eight weeks to heal fully and during this time you will be unable to lift heavy items or do heavy manual work. However if you can do office-based duties you can potentially return to work earlier. Please speak to your insurance company with regard to driving for their regulations, but the most important consideration when driving is safety. You must not drive under any circumstances until you have no distracting pain, you are confident that you are in control of the vehicle at all times, and be able to perform an emergency stop competently.

## Complications

Most metacarpal fractures heal without any complications. Fractures involving a joint may have more of a tendency to become stiff. The following complications may occur at the fracture site:

- Delayed union: A fracture that takes longer to heal than expected.
- Non-union: A fracture that fails to heal in a reasonable amount of time.
- Mal-union: A fracture that does not heal in a normal alignment
- Stiffness
- A pain syndrome
- Arthritis (affecting the carpometacarpal joint)

## Further information

The day surgery unit can be contacted on 02476 966861 / 02476 966868 (University Hospital), or on 01788 663264 (Hospital of St. Cross).  For further information please visit our hand service's web site at www.tinyurl.com/uhcwhand, or contact:

- Hand Therapy at University Hospital Coventry & Warwickshire on 02476 966016
- Hand Therapy at Hospital of St. Cross, Rugby on 01788 663257
- Our specialist hand surgery nurse / hand-coordinator on 02476 965072

The Trust has access to interpreting and translation services.  If you need this information in another language or format please contact 02476 966861 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

**Document History**

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