

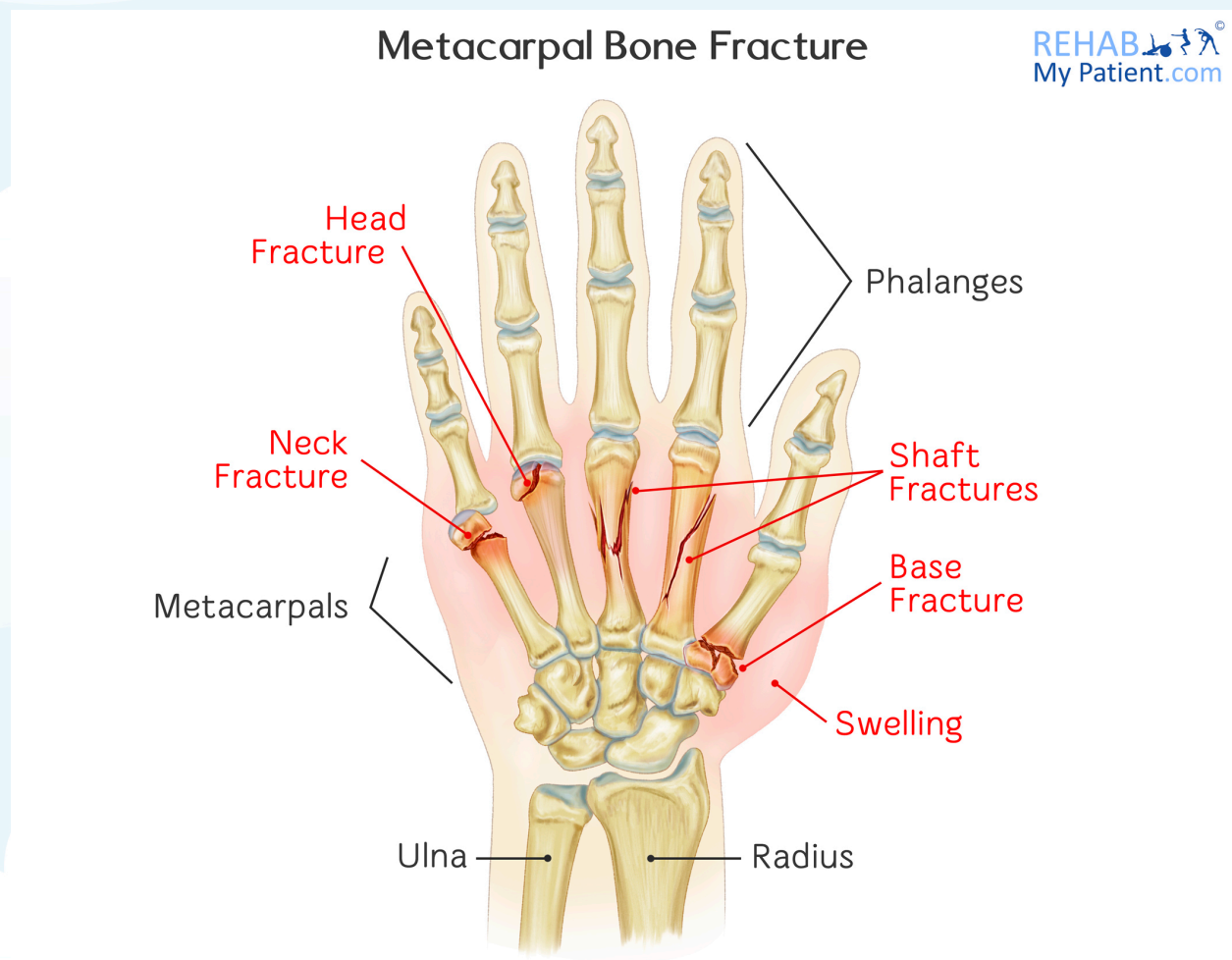
# Metacarpal Bone Fracture

A broken hand or fracture is quite common. You might experience this condition from a sports injury or a car accident. The seriousness of the broken bone will vary in intensity but often the fracture is not considered serious and often is unproblematic. Fractures can range from a small crack in the bone to a shattering that pierces the skin. Treatment for broken bones depends on how severe the injury is and the exact site of the break. A severely broken bone might need surgery to have wires, screws, plates or rods inserted into it to maintain the proper position throughout the healing process.

For the hand to fracture it must have had a significant force applied to it. Hitting or punching a wall can cause it, other blunt traumas to the hand, sports or as mentioned above car accidents where the hand hits the steering wheel.

## Metacarpal Bone Fracture Anatomy

The metacarpal bones are 5 bones in the hand. They are long and thin, and often break in half at the middle of the bone. They are labelled 1<sup>st</sup> to 5<sup>th</sup> metacarpal, with the first metacarpal being the bone leading to the thumb and the 5<sup>th</sup> metacarpal leading to the little finger. The metacarpals lie between the carpal (wrist) bones and the phalanges (fingers).



## How to Treat a Metacarpal Bone Fracture:

### 1. Medication

An over-the-counter pain reliever might be recommended for dealing with this condition. If you are experiencing a significant amount of pain, you might need something stronger from your doctor. Pain medication and anti-inflammatory medication should only be used for the first 3-4 weeks.

### 2. Immobilization

For a broken bone to heal properly, it needs to be immobilized so the ends are able to knit together again. In the majority of cases, you have to have a cast put on. The cast may come up as high as the elbow. The cast may stay on for up to 6 weeks while the hand heals. After the case comes off you can expect the hand to be very stiff, and you will likely require therapy to mobilize the wrist.

### 3. Therapy

After the bone has healed, you might need to loosen any ligaments and muscles in your hand. You may also be stiff following a cast, and have difficulty moving your wrist. Physical therapists can teach you a number of different exercises that will help improve your strength and flexibility.



## Tips:

- Crushing injuries that commonly occur from a car accident might require surgery to repair them.
- Combat sports or contact sports are also very likely to cause fracture to the hand if enough force or trauma occurs.
- Immobilization is likely to be by a cast from hand to elbow. It is more likely if you have not had surgery. Just make sure they do not fit the cast too tight, and if it does feel too tight go back to the hospital as soon as possible to get it re-fitted.
- As soon as the cast comes off, you need to mobilize the hand straight away. Your fingers and wrist will likely be stiff and seeing a therapist will help at this point.