

Metacarpal Fractures in the Hand

WHAT IS A METACARPAL FRACTURE AND HOW DOES IT HAPPEN?

A metacarpal fracture is a break in one of the five long bones in the hand. The metacarpal bones connect the wrist to the fingers.



These fractures can happen from high forces, accidents, direct blows, clenched fist, or crush injuries to the hand. Common signs of a broken metacarpal bone are pain, swelling, bruising in the hand, and difficulty moving the fingers and gripping. Sometimes you can see a bump on the top of the hand where the break is. Very occasionally parts of the injured hand may feel numb or cold if the blood supply to the hand has been damaged.

HOW IS A METACARPAL FRACTURE TREATED?

Hand Therapy

After an x-ray to check which bone is broken, if your fracture if considered to be simple and stable it is common for the injured hand to have a strapping, a splint or a plaster cast to hold it in the correct position so the bone will heal properly.

Your hand therapy may involve

- Splinting to protect the bone while allowing you to use your hand.
- Reducing your swelling and helping to keep it down.
- Scar management if you had surgery.
- An exercise programme to restore your wrist and finger movement, coordination, and strength.
- Advice about safely returning to hobbies and house or garden tasks, safely returning to sport and work, and getting the right balance between activities and rest to allow you to recover.

WHAT CAN I EXPECT FROM MY REHABILITATION?

Buddy strapping or a splint may be needed for 3-6 weeks from the day of your injury. During this time you should only use your hand for light tasks that do not cause pain. Your hand therapist will give you exercises as the bone heals and advice about returning to your usual daily activity.

Contact sports should be avoided until at least 10 - 12 weeks after injury or until you are advised by your hand therapist or surgeon. If you return to demanding or heavier activities too soon you may worsen your injury. Your hand therapist will be able to give you advice if you are worried.

Often the knuckle remains dropped or there may be an obvious boney lump on the back of the hand. However, this should not cause your hand to work differently in everyday tasks.

Do

- Wear your splint
- Keep your hand elevated if there is swelling in your hand, this will help it heal.
- Follow your hand therapists' instructions about exercises and using your hand.
- Avoid daily tasks that involve any strong gripping or lifting.

Do Not

• Remove your splint without guidance from your hand therapist

WHAT SHOULD I LOOK OUT FOR?

- Tell your hand therapist if your splint or plaster is too tight or uncomfortable, your splint becomes loose or if it is rubbing on your skin or if you have any numbness or pins and needles.
- If your hand or fingers become red, swollen and painful you should stop your exercises and book an appointment to see your hand therapist. Elevation and ice may be helpful to reduce swelling.
- If things are getting worse book an appointment to see you hand therapist.

WHAT WILL HAPPEN IF I DO NOT HAVE TREATMENT?

If your bone does not heal properly you may not be able to use your hand or fingers normally. Your fingers may become stiff. It is easier to treat this injury early, if stiffness develops your treatment will take longer.



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CONTACT DETAILS AND REFERENCES

Your hand therapist is

Merivale Hand Clinic (03) 3559775

https://www.stgeorges.nhs.uk/wp-content/ uploads/2015/08/PLA_BOX_01.pdf

http://practicalplasticsurgery.org/docs/Practical_30.pdf http://www.acc.co.nz/publications/index.

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https://en.wikipedia.org/wiki/Fifth_metacarpal_bone