

Occupational Therapy (Hand Therapy)

Finger phalangeal fractures

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Distal phalanges

Middle phalanges

Proximal phalanges

Metacarpals

Carpal bones



Thumb distal phalanx

Thumb proximal phalanx

Thumb metacarpal

What is a fracture?

A fracture is a break in the bone.

Phalanx (phalanges) of finger

The finger has 3 phalanges: the distal phalanx (end bone), middle phalanx (middle bone) and proximal phalanx (the base bone).

Common symptoms of a phalangeal fracture

- Pain
- Swelling
- Bruising
- Deformity
- Difficulty moving finger
- Rotation in finger

How long will it take to heal?

Most phalangeal fractures will take up to 6 to 8 weeks to heal. It will take another 6 weeks to consolidate the healing. In some cases it may take longer to heal. You should avoid taking part in contact sports or heavy lifting or gripping for up to 12 weeks in order to reduce the risk of re-injury. If you use your hand too soon for demanding activities it may delay the recovery.

What can you do to reduce swelling in your hand?

It is normal to have swelling after the injury. Swelling can make your hand uncomfortable and stiff. It could also affect the recovery process.

Most of the swelling should settle over the course of 6 to 8 weeks but can occasionally take a few months to fully settle.

You can keep the swelling down by elevating your hand higher than your heart as often as possible. You can rest your hand on a couple of pillows at night to keep it slightly elevated.

Your Occupational Therapist will advise you when you can start to exercise your fingers. Exercising your hand will help to reduce the swelling.

You can also try wrapping an ice pack or bag of frozen peas in a damp tea towel and putting on your hand in the first few days of your injury. Leave for 10 minutes or less and repeat 3 times a day. If you have circulation problems, it is not appropriate for you to use a cold compress.

You may also use a compression wrap to reduce the swelling.

Treatment

The phalangeal fracture can be treated by surgical fixation, manipulation or treated conservatively without requiring surgery.

The treatment of phalangeal fracture depends on the type of fracture; location of the fracture; stability of the fracture; displacement of the fracture; deformity and movement of finger as well as any individual circumstances.

Splinting

During the time of healing, you may be given a thermoplastic splint to wear. This is specially made for you by the Occupational Therapist. It is important to wear your splint and follow the advice from your Occupational Therapist. This splint is to position your finger and to protect the fracture while the bone is healing.

Buddy Strapping/Buddy taping

You may be advised to use buddy strapping to tape the injured finger with the adjacent finger. The fingers can be buddy strapped with sticky tapes or using a Bedford Splint (elasticated double finger stockinette).

Buddy strapping can be used on its own in a simple phalangeal fracture when wearing a splint is not necessary. It protects the injured finger while allowing you to move the finger to prevent stiffness.

Some injuries need splinting as well as buddy strapping to position and protect the fracture.

At the completion of splinting, buddy strapping can be used for protection when there is a risk the finger may get caught or knocked (i.e. on public transport or in crowded areas). However, buddy strapping is not suitable for all phalangeal fractures. You should follow the advice from your specialist.



Buddy strapping the ring and little finger with sticky tapes



Buddy strapping the ring and little finger with a Bedford splint

Your splinting schedule

- Please wear your splint all the time including when you are in the bath/shower and when you are in bed until _____.
- You can put a plastic bag over to keep your hand and splint dry.
- From _____, you can start to remove your splint to do the exercises as you are advised by your Occupational Therapist. You need to put the splint back on after you finish your hand exercises.
- From _____, you should wear your splint at night and when the hand may be at risk of injury (i.e. on public transport and outdoors).
- From _____, you do not need to wear your splint anymore.

Hand exercises

The healing tissue of the bone can stick to the overlying tendons and soft tissue. This can restrict the movement of your hand and make your hand stiff. It is normal that movement of the finger can be painful after the injury or surgery. The following exercises can help prevent stiffness even if this means overcoming the discomfort.

Your exercises program

Besides the hand exercises, you also need to exercise your shoulder, elbow, wrist and any joints that are not included in the splint so as to prevent them from stiffening.

From _____, please remove your splint to do the following exercises.

Please exercise _____ times a day, each time do _____ repetitions of each movement.

Flat table top movement

- Bend the knuckle joints (base of your fingers) down without bending any other joints of your fingers.
- Then straighten your fingers.



Straight fist movement

- Bend your fingers as if you are making a fist but without bending the finger tips.
- Then straighten your fingers.



Hook fist movement

- Hold your fingers straight.
- Bend your fingers down at the top and middle joints but keeping the knuckle joints straight.
- Then straighten your fingers.



Full fist movement

- Make a fist with your hand without clenching it tight.
- Then straighten your fingers.



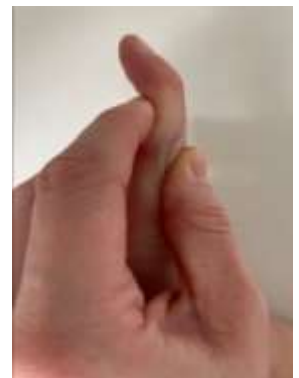
From full fist to hook fist

- Curl all your fingers into your palm.
- Straighten your fingers from the knuckle joints first, follow by the middle joints and end joints of the fingers.



Isolated movement at end joint

- Place your other hand just below the end joint of your finger and keep the rest of your finger straight.
- Only bend the end joint of your finger.
- Straighten the end joint of your finger.



Isolated movement in the middle joint

- Keeping all the fingers straight.
- Bend the injured finger down but without bending the end joint of your finger
- Straighten your fingers.



When can you use your injured hand?

- From _____, you may use your hand for light activities.
- From _____, you may return to full activity and normal use of your hand. You can go back to playing contact sports. However boxing should be delayed for at least another 2 weeks.

When can you return to driving?

You should not drive while you are in a splint. You should not return to driving if you have significant pain or if you have reduced grip function that affects your ability to drive safely and perform an emergency stop manoeuvre.

We cannot give you permission to drive. It is your decision. It is your responsibility to ensure that you are safe to drive and you are in control of the vehicle. Please refer to the DVLA website regarding fitness to drive.

You are advised to check with your driving/motor insurance provider before returning to driving.

What outcome can you expect after a phalangeal fracture?

Most of the phalangeal fractures heal with a good functional outcome. The swelling and pain normally takes 3 months to get better. In some cases the remaining swelling and pain at the fracture site may take a lot longer to fully settle. Elevation of the hand and active hand exercises should help to improve these symptoms.

The shape of the finger may not look the same after the fracture. The injured finger may have some rotation or scissoring. The joints can be larger than before the injury. These are due to the fracture and the scarring of soft tissue. These normally do not affect the overall function of your hand.

Your finger may become stiff due to lack of movement. It is important that you exercise your finger as you are advised by your Occupational Therapist. It may take 3 months or sometimes longer for the movement to get better.

Your hand will become weaker and it may take a few months or sometimes longer to get your strength back.

Occasionally, the bone may take longer than expected to heal or the bone may heal with a deformity or it may not align properly when it heals. You may need to seek advice from the Plastics Surgery doctor.

If you have any questions on this information leaflet, please contact your Occupational Therapy Department.

The telephone number in Occupational Therapy
01752 432220

Your Occupational Therapist is: _____



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