

## Virtual fracture clinic

# Hand fractures

## Information for patients

### What is a fracture?

You have 27 bones within your hand and wrist. Any one of these bones can be fractured (or broken) when a force is applied.

Fractures can be:

- simple (just two fragments) or multi-part (more than two fragments)
- open (breaking through the skin) or closed (the skin remains intact)
- undisplaced (the bone fragments have remained in position) or displaced (the bone fragments have shifted position)
- stable (the bone fragments are unlikely to change position) or unstable (the bone fragments have the potential to change position)



Fractures can also occur in conjunction with injuries to other tissues, such as damage to tendons, muscles, nerves and blood vessels.

A break is the same as a fracture.

### What causes a fracture?

Fractures happen when a force is applied to a bone that is greater than the strength of the bone. This might depend on the angle at which the force is applied and how the force is generated. Fractures can happen with a fall, whilst participating in sport or exercise, during a work or road traffic accident.

### What are the signs and symptoms of hand fractures?

Most people will notice that the area around the fracture is swollen and will be tender to touch. You may also have some bruising and you might find it difficult to open and close your fingers.

An x-ray should be taken to confirm the presence of a fracture and to check the position of the bones.

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## What treatments are available for hand fractures?

Many hand fractures are successfully treated without surgery. Even in cases where the alignment of the bone fragments is disrupted, the bones usually heal without any serious long term consequences.

If surgery is not required, you may still need to protect the fracture in the initial stages of healing with a cast, strapping or a thermoplastic splint. You may be referred to hand therapy to ensure that your fracture is supported in an appropriate fashion and to start exercises. It is important to exercise the fingers, hand and wrist in early stages of healing to prevent stiffness.

Hand fractures which require surgery are usually treated with one of two surgical approaches:

1. The fracture is reduced (returned to normal alignment) and thin wires (k-wires) are inserted through the skin and across the fracture to hold the fragments in position. These usually remain in place for three to four weeks.
2. The skin is opened, the fracture is reduced and is fixed in place by k-wires, screws or a combination of screws and plates. Screws and plates do not normally need to be removed.

After your operation you will normally be placed in a plaster of paris cast. You may subsequently be referred to hand therapy to have the cast changed to a thermoplastic splint and to start exercises.

## What is the usual outcome after a hand fracture?

Most hand fractures will be healed enough within two to three weeks to allow free motion and use of the hand. It may take several more months for any swelling and tenderness to resolve and to feel like you have full strength and flexibility in the hand to perform heavy activities.

The final outcome following a hand fracture will depend upon many factors, including the nature and complexity of the fracture and the treatment decided upon by you and the hand surgery / therapy team. Early movement can also positively influence your outcome. However the greatest factor to influence outcome is usually you and your body's own response to the injury.

As every person is different it can be difficult to predict the final outcome. We find that people with hand fractures that are associated with other injuries (to the tendons, nerves or blood vessels) or those that involve the joint surfaces take longer to recover and have a greater chance of experiencing a long term restriction in movement or strength. Your surgeon or your hand therapist can discuss the likely possibilities with you.

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## When can I return to work and sport after a hand fracture?

You should avoid any heavy gripping, pulling and pushing for the first six weeks after your injury but you can use your hand immediately for light activities such as eating / drinking / dressing / typing and light housework. You should avoid contact sports and heavy manual work until eight to 12 weeks after the injury.

If you require a Statement of Fitness to Work (sick note) you should contact your GP and ensure you take all of your hospital documentation with you. For more information, visit <http://www.nhs.uk/chq/Pages/1062.aspx>

## Is there anything I can do to help myself?

There are a couple of things that you can do to optimise your recovery:

1. Basic painkillers and anti-inflammatories like paracetamol or ibuprofen can help manage pain and swelling. Please speak to your local pharmacist if you are unsure as to which medications you can safely use.
2. It is important that you try to keep your hand elevated above the level of your heart for the first one to two weeks to minimise the swelling in the hand. You should avoid wearing a sling as this can cause discomfort in the shoulder and neck.
3. You should also try to move your fingers, opening and closing your hand in a fist, as much as you can within the limits of your cast or splint. This will help with the bone healing and prevent the joints from becoming stiff.
4. You should avoid any heavy lifting, pulling or pushing for the first six to eight weeks after your hand fracture
5. You should also make sure to maintain the normal movement in all the other joints of your hand and upper limb by moving them regularly

## Who can I contact for more information?

Please look at our website which has educational material for patients and professionals [www.londonvirtualfractureclinic.co.uk](http://www.londonvirtualfractureclinic.co.uk)

Please note the phone line is open **Wednesday mornings** only.

**From:** 9:00am to 11:00am

**Please call:** 02033125990

**Or email:** [VirtualFractureClinic@imperial.nhs.uk](mailto:VirtualFractureClinic@imperial.nhs.uk)

**To speak to someone about hand therapy appointments**

Please telephone 0203311 0333

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## How do I make a comment about my treatment?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at [pals@imperial.nhs.uk](mailto:pals@imperial.nhs.uk). The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to express your concerns in **writing** to:

Complaints department  
Fourth floor  
Salton House  
St Mary's Hospital  
Praed Street  
London W2 1NY