

Trauma and Orthopaedics

Fractured wrist

Introduction

A fractured (broken) wrist usually occurs as a result of a fall onto an outstretched hand. Either one or both of the forearm bones can break (radius and ulna). Soft tissues of the wrist that are attached to the bones can also be damaged.

Symptoms

- **Pain** – when the bones of the wrist are broken it causes pain. This usually requires taking pain killers as recommended by your doctor, but the pain does settle with time after the injury. It may take up to four to six months for the wrist to feel reasonably ‘normal’ after the break, but improvements in pain and function may continue for up to 2 years.
- **Swelling** – the wrist joint will swell up after injury due to the damage to the tissues. During the first two weeks after injury it is very important to raise your hand and wrist in the sling given to you, to help reduce this swelling. Avoid letting your swollen hand ‘hang down’ as this will make the swelling worse. Try to keep your fingers gently moving during this time also, which you can even do whilst you have a plaster on.
- **Deformity** – occasionally the wrist joint can look a slightly different shape when it has healed due to bones ‘resetting’ in a slightly different alignment.
- **Stiffness** – the fingers and wrist joint can easily become stiff after this injury due to tissue damage and swelling. For this reason it is very important to do the finger exercises shown at the end of this information sheet whilst you have the plaster on.



Patient Information

Non-surgical treatment

Most commonly this injury can be successfully treated without surgery. This treatment involves wearing a plaster cast below your elbow for four to six weeks. Your wrist may need to be 'manipulated' by the doctor into a better position before the plaster is put on. You will be told if this is necessary.

The purpose of the plaster is firstly to reduce pain by 'immobilising' the wrist to stop the joint from moving. This immobilisation allows the bones to heal and join together again where they have been broken. When you initially sustain the injury you will have a partial plaster. This does not go all the way around your wrist and forearm, which is important to allow for the swelling that occurs. After a week or two in the partial plaster, your doctor will organise for this to be replaced by a full plaster once the swelling has settled, which usually is done in the fracture clinic. You may require x-rays to make sure that your wrist position remains in a good position during the first two weeks if you are having plaster treatment after a manipulation.

Surgical treatment

Occasionally a wrist fracture (break) will need an operation because the bones have moved into an 'unacceptable' position where they are not properly aligned. Your doctor will advise you if this is the case when they look at your wrist and your x-ray. Your doctor will advise you on the type of surgery needed for your wrist, as there are several different types of operation. One method is to manipulate the wrist into a good position and then hold the wrist with 2 or 3 wires (k-wires). These wires are left proud of the skin slightly beneath your plaster so that they can be easily removed in the clinic after four to six weeks. A second method is to fix the wrist with a plate on the bone. These operations can be done with you asleep under general anaesthesia, or with you awake but your arm asleep (this is called regional anaesthesia). If you are worried about being awake with regional anaesthesia, you can speak with your anaesthetist before the operation, and you may be offered a sedative to help you relax.

Patient Information

Complications

A small number of patients may experience the following:

- Delayed bone healing
- Stiffness
- Altered sensation
- Swelling
- Pain
- Infection

The complications depend on your type of treatment, and your doctor will speak to you about these in the fracture clinic.

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

It is your responsibility to make sure you are safe to drive. You can discuss this further with your treating clinician if you remain unsure. Please consider bringing someone with you, to avoid having to drive home yourself immediately after any procedure. You may wish to consider waiting until you can grip the steering wheel tightly without any distracting pain, before resuming driving.

Returning to work will depend on your type of job. You should be able to perform most everyday activities with any splints or strapping that may have been provided. Again, please speak to your treating clinician about this, and do not resume sporting activities until you are told that it is safe to do so.

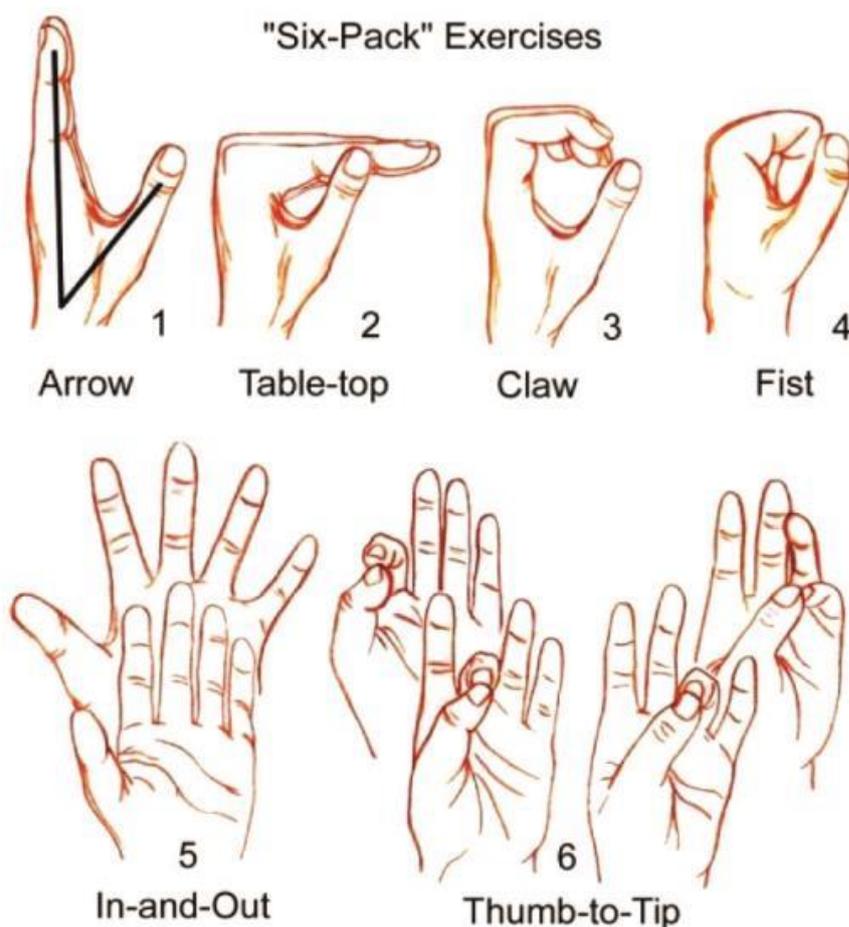
Hand Therapy

Your wrist will be stiff after your injury, particularly if it has been in plaster. During the time of wearing the plaster and afterwards, it is very important that you work on the exercises given to help to get over this stiffness. It is helpful to perform each of the exercises shown 10 times, and repeat them four to five times per day. Do the exercises as far as pain allows and not beyond. Your range of movement will improve slowly with time after your treatment. After this injury, it is not necessary to routinely refer you for physiotherapy if you follow the exercises below, but if your particular fracture or situation requires this, then your doctor will advise you and organise it.

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As well as the hand and wrist exercises, it is important to keep your elbow and shoulder joints moving as normal so that they do not also become stiff whilst your wrist is healing. Use your hand as normally as possible for eating and dressing, but avoid heavy lifting.

With the plaster on you can do the following exercises:



1. Arrow – Place fingers together and keep them straight and in line with the wrist. Move the thumb out away from the fingers.
2. Table-top – Make a tabletop with your fingers by bending at the knuckles while keeping your fingers and wrist straight.
3. Claw – Keep knuckles and wrist straight. Bend and straighten the fingers only.
4. Fist – Make a fist and open. Make sure that all joints are bending as much as possible.
5. In-and-Out – Place hand flat on a table, palm down. Spread the fingers apart as far as they will go and bring them back together.
6. Thumb-to-Tip – Touch the tip of each finger to the tip of the thumb and repeat.

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When the plaster is removed you can also do the following exercises:



Push both palms together and lift your elbows up as far as comfort allows, until your forearms are parallel to the floor. At first it will be hard to get your palms together completely, but this will improve and you will then be able to bring your elbows up higher.



Push the backs of your hands together.

Again try to get to the point where your forearms are parallel to the floor.



Start with your elbows tucked in to your side against your chest.

Position your hands out in front of you with your thumbs pointing upwards to the ceiling.



Next turn your palms to face upwards to face the ceiling.

Keep your elbows tucked in to your sides throughout.



Next turn your palms to face down to face the floor.

Keep your elbows tucked in throughout.

Patient Information

Further information

The day surgery unit can be contacted on 024 7696 6861 / 02476 96 6868 (University Hospital), or on 01788 663264 (Hospital of St. Cross). For further information please contact:

- Our plaster room technicians at Hospital of St. Cross on 01788 669143
- Our plaster room technicians at University Hospital Coventry on 024 7696 6909
- Our specialist hand surgery nurse / hand-coordinator on 024 76 96 5072
- Hand Therapy at University Hospital Coventry & Warwickshire on 024 7696 6016
- Hand Therapy at Hospital of St. Cross, Rugby on 01788 663257

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 6861 and we will do our best to meet your needs.

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