



Oxford University Hospitals
NHS Foundation Trust

Wrist fractures

Information for patients



Contents

The aim of this booklet is to help our patients who have had a distal radius fracture. Here you will find helpful information on recovery and exercises.

What is a distal radius fracture?	3
Key elements within your recovery	4
Wrist rehabilitation exercises - Stage 1	6
Wrist rehabilitation exercises - Stage 2	8
Wrist rehabilitation exercises - Stage 3	10
Strengthening with weights - Stage 4	11
Glossary of terms	13
Notes	14

What is a distal radius fracture?

The radius is one of the two bones in the forearm, the other being the ulna. The distal part of the radius is the end nearest your wrist. This part of the radius is commonly broken. A small break at the end of the ulna often accompanies this injury.

These fractures are normally treated by immobilisation with a splint or plaster cast for approximately four weeks, depending on the position and severity of the fracture.

If the bones have moved significantly out of position, then you may have needed to have the fracture manipulated or corrected with surgery. It is normal to experience stiffness and swelling after a fracture. These changes are normally cosmetic in nature, but they should not affect your ability to regain functional use of your wrist. It must be noted that the removal of the cast or dressing is only the start of your recovery.



Normal wrist X-ray



Broken distal radius



Fixed distal radius

Key elements within your recovery

Swelling

Swelling is a common problem post fracture. Controlling your swelling can promote recovery of normal hand function. Elevating your hand regularly throughout the day can help to drain away the fluid. Whilst your hand is raised, try rapidly making a fist 5 to 10 times. Stroking your hand/wrist can also help to move the swelling. This can be completed using long firm strokes starting from the fingertips in a downward direction towards your elbow. Another option is to apply an ice pack to the area.

Scar

If you have had surgery, you will also be advised to complete regular scar massage. Apply a deep circular massage with firm pressure 3 times daily for approximately 3 minutes to the scar and the surrounding area. You may also use a gentle non-perfumed moisturiser. If your scar feels very sensitive, regular touch will also help to calm this down. Exposing the area to different textures, i.e. sleeves of clothing, will help the wrist adapt to normal stimulus.

Light function

As soon as your cast/dressings are removed, it is important to start to use your injured hand in normal day-to-day activities. You can complete all normal light functional activities such as washing and drying up, getting dressed and using a keyboard. The more you use your wrist and try to regain normal function, the quicker it will recover.

Grip

Regaining finger movement is also a key focus of early stages. We would advise you to regularly complete the finger exercises with a focus on achieving a full fist and then fully straightening your fingers, rather than just wiggling the fingers. Alongside these specific exercises, whenever you grip hold household objects such as toothbrushes, cutlery or hairbrushes, you should attempt to close your fingers fully around the diameter.

Home exercise programme

It is important to complete the exercises provided by your physiotherapist. The aim is for you to recover your range of movement (ROM) and strength post injury. Evidence has shown that regular completion of exercises will improve your outcome post fracture.

Heat

To assist regaining your movement, you may use heat prior to completion of exercises. For example, you may complete your exercises in the shower, or place a hot water bottle/warmed towel on the wrist 5 to 10 minutes before.

Pain

It is normal to have some level of discomfort post fracture. This is not an indication of a new injury or that you have unsettled the fracture. We would suggest that you work to the level of an unpleasant stretch. On a pain scale, we would suggest this to be around 5 out of 10 discomfort – this discomfort should settle down quickly on completion of the activity (within 30 minutes). If you are regularly experiencing significant pain, or for a significant period post exercise, please discuss your symptoms further with your physiotherapist.

Driving

Before returning to driving check that you can manage all the controls and that you can safely manage an emergency stop. Start with short journeys. You should also check with your insurance provider.

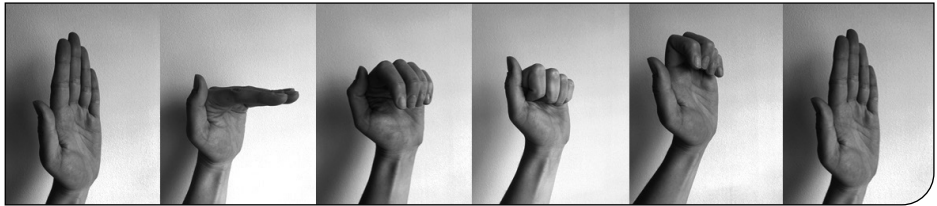
Wrist rehabilitation exercises

– Stage 1

The following exercises are to be started immediately from removal of cast or dressing.

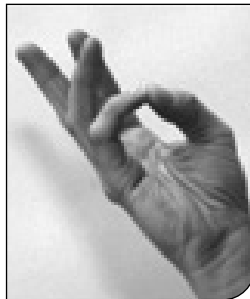
Finger exercises - Tendon gliding

Complete the sequence of finger exercises. Increase the stretch into each position, using the other hand to assist the movement if the fingers feel stiff.



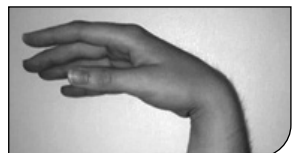
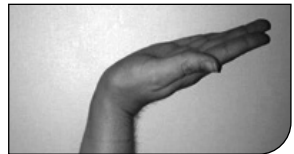
Thumb exercises

Thumb opposition Touch the tip of each finger in turn with the tip of the thumb then move the tip of the thumb down the length of the little finger to its base.



Active extension and flexion

Bend the wrist backwards (extension) until you feel tightness. Hold the stretch for the count of 10 to 15 seconds. Then bend your wrist forwards (flexion) until you feel tightness.



Hold the stretch for the count of 10 to 15 seconds. Repeat 5 to 10 times.

Active supination and pronation

Keeping your elbow tucked into your side, rotate your forearm so the palm of your hand faces upwards (supination) and then rotate your forearm in the opposite direction (pronation).

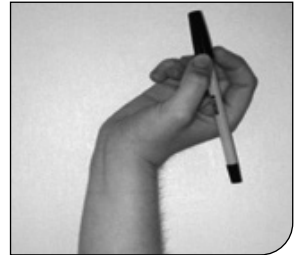
Hold each stretch for the count of 10 to 15 seconds in each direction.



Dart throwers motion

Rest your elbow on a table. Hold onto a pen with a light grip. Pretend you are going to throw the pen like a dart by bending your wrist back in the direction of your thumb, and then move your wrist forward towards your little finger.

Repeat 5 times.



Wrist rehabilitation exercises

– Stage 2

Continuing with the exercises above, start the below exercises at 2 weeks post your surgery or when you come out of your cast.

Passive extension and flexion

Bend the wrist backwards (extension) until you feel tightness. Then use your other hand to push into the movement. Hold this for 30 seconds. Bend the wrist forwards (flexion) until you feel tightness. Then use your other hand to push into the movement.

Hold this for 30 seconds. You may find it easier to complete this exercise with your hand over the side of a table.

Repeat 2 times.



Passive pronation and supination

Keep your elbow tucked into your side. Rotate your forearm so the palm of your hand faces upwards (supination) and then downwards (pronation). Use your other hand to gently push your wrist further into each position.

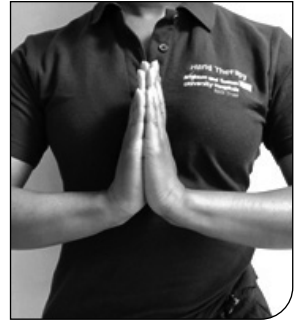
Hold each stretch for the count of 30 seconds in each direction. Repeat 2 times.



Prayer stretch

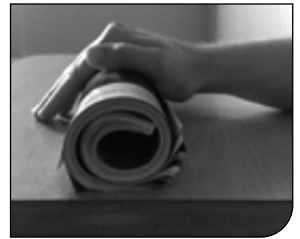
Place both hands together with your elbows bent (as though praying), ensuring your palms are touching. Slowly bring your hands downwards and bring your elbows out. Ensure the bottom of your palms remain touching throughout.

Hold for a count of 30 seconds.



Rolling an object

Rest your hand and wrist on an uneven surface such as a ball, rolled magazine, cushion or water bottle. Without leaning through the object, roll your hand and wrist over it slowly and smoothly. If using a cushion or a ball, try to control your movements in a circular pattern or try to write your name.



Wrist rehabilitation exercises

– Stage 3

The following exercises are designed to help increase the stability and strength in the wrist. They should only be completed 6 weeks after your injury/surgery.

Weight-bearing on a table

While standing, place your hand flat on a table. Lean through the table with 25%, 50%, 75% or 100% of your weight.

Hold the position for 5 to 10 seconds.

When happy weight bearing onto a table, you can progress to weight bearing on a wall.



Weight-bearing on the floor

While kneeling on the floor place your palms flat on the floor in front of you.

Lean into the floor increasing your weight as you are able to tolerate.



Strengthening with weights

– Stage 4

When choosing the correct weight, you should be able to lift the weight 10 times and then your wrist should feel tired. You may need different weights for different exercises. To make the exercises harder you can increase your weight and / or complete extra sets of 10 (up to 3).

Tip: Strengthening exercises should be completed every other day.

Flexion

Holding on to a weight. Begin with your forearm resting on a table palm up, ensuring your wrist is off the edge of the table. Bend (flex) your wrist upwards. Hold for a count of 5 seconds and then slowly lower your wrist.

Repeat this movement slowly and smoothly 10 times.



Extension

Holding on to a weight. Begin with your forearm resting on a table palm down, ensuring your wrist is off the edge of the table. Bend (extend) your wrist towards you. Hold for a count of 5 seconds and slowly lower your wrist.

Repeat this movement slowly and smoothly 10 times.



Wrist deviators

Holding on to a weight. Start with your thumb pointing towards the ceiling. Bend your wrist up towards you and hold for a count of 5. Then slowly lower your wrist.

Repeat this movement slowly and smoothly 10 times.



Weighted supination and pronation

Start with your elbow tucked into your side, your palm facing upwards and your chosen weight in your hand. Move your hand slowly and smoothly so that your palm is facing downwards. Slowly return to the starting position.

Repeat 5 times. Make sure you keep your elbow tucked in your side throughout the exercise.



Glossary of terms

Active

An exercise that uses a person's own muscle to achieve the movement.

Backslab

A slab of plaster that does not completely encircle the limb and is used for injuries which have resulted in a large amount of swelling. It is secured with a bandage to accommodate the swelling.

Extension

The act of extending, lengthening or stretching out.

Flexion

The act of bending a limb.

Fracture

The breaking of a bone.

Passive

An exercise where the limb is held into a movement by another force - i.e. the other hand.

Plaster cast

A bandage stiffened and moulded to the shape of a limb that is broken. Used to support and protect.

Pronation

Rotation of the hand or forearm, the surface of the palm facing downward.

Splint

Rigid material used to immobilise a fractured or dislocated bone, or to maintain any part of the body in a fixed position. Usually removable.

Supination

Rotation of the hand or forearm, surface of the palm facing upward.

Notes

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Author: Trauma Physiotherapy Dept. GHG/JR
September 2024
Review: September 2027
Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information

This leaflet has been produced with the permission of the University of Sussex NHS Foundation Trust who provided the original content.



Making a difference across our hospitals

charity@ouh.nhs.uk | 01865 743 444 | hospitalcharity.co.uk

OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)

