

# Exercises following open reduction and internal fixation (ORIF) of proximal humeral fracture

## Introduction

There are many ways to internally fix fractures (breaks) of the proximal humerus – top of the upper arm. Internal fixation is usually used for serious and complex fractures, where the bone otherwise would not heal correctly without fixation. All methods of fixation will require a period of immobilisation and limited movement. The length of time will be determined by the operation performed and by your surgeon. This will vary from immediate exercises to 4-6 weeks of limited movement.

## Follow up

How many fracture clinic appointments you have will be determined by your surgeon. Most patients have a 2 week appointment to check the wound and for x-rays and another appointment at 6 weeks.

When you can start outpatient physiotherapy is again determined by your surgeon and the ward physiotherapist will inform you of when this can start.

## General guidelines

### Pain

A nerve block may be used during the procedure, which means that immediately after the operation the shoulder and arm can feel numb for a few hours. The shoulder will be sore when this wears off and this may last for the first few weeks. It is important that you continue to take the painkillers as advised by the hospital. Ice packs may also help reduce pain. Wrap frozen peas / crushed ice in a damp, cold towel and place on the shoulder for up to 10 minutes, making sure the wound is covered with something waterproof, e.g. cling film until healed. Allow at least 20 minutes between each ice pack.

### Wearing a sling

You will return from theatre wearing a sling, either with or without a body belt (extra strap fixing around the waist to keep your arm close to your body). Ideally this should be worn under clothes for the first 4 weeks. After 4 weeks the advice differs, depending on which surgeon carried out the operation.

During your time wearing the sling you will be expected to keep it on at all times, even when in bed at night. The only exception is when you are doing exercises or when advised to remove it by your physiotherapist.

## Hygiene

You will be unable to bath or shower for 4-6 weeks and will need to strip wash. It is possible, by leaning forward slightly, to get a baby wipe or face cloth under the armpit of the operated arm. You are very likely to need assistance to wash your back so it is advisable to try and organise some help from family and friends. If this is not possible we can organise a package of home care for you before you leave hospital, if required.

## The wound

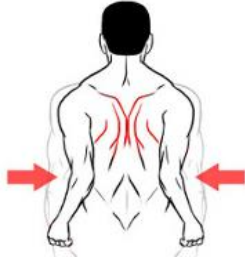


The stitches are dissolvable but are usually trimmed 10-14 days after surgery. Keep the wound dry until it is well healed. The wound will be covered with a waterproof dressing and this should remain in place until you see your GP practice nurse or return to Fracture Clinic, unless advised otherwise by the nursing staff.

If the wound changes in appearance, weeps fluid or pus or you feel unwell with a high temperature, contact the Orthopaedic Department on 0118 322 5111 (switchboard) and ask to be put through to the Orthopaedic Team.

Throughout your rehabilitation you must always be guided by your pain. Do not force, stretch or stress the repair before the timeframes in the following exercises. The exercises should be done a minimum of 10 times each, 3 times a day. You must not perform actions that hold the arm away from the body, forcefully turning the arm outwards, e.g. throwing.

## Exercises

### Day 1 – discharge from hospital

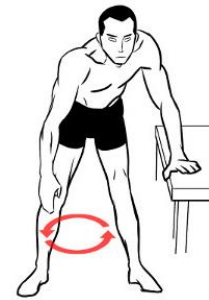
<p><u>Begin shoulder girdle exercises:</u></p> <ul style="list-style-type: none"> <li>• Shrug the shoulders up to the ears.</li> <li>• Roll the shoulders backwards.</li> <li>• Squeeze the shoulder blades together.</li> </ul>	
<p><u>Begin elbow exercises:</u></p> <ul style="list-style-type: none"> <li>• Bend and straighten the elbow with assistance of the good arm (while sitting, if you were told you had a SLAP (superior labral tear from anterior to posterior) lesion).</li> <li>• With a bent elbow turn the forearm over in a clockwise and anti-clockwise direction.</li> </ul>	
<p><u>Begin wrist and hand exercises:</u></p> <ul style="list-style-type: none"> <li>• Bend the wrist forwards and backwards.</li> <li>• Tilt the wrist from side to side.</li> <li>• Circle the wrist in a clockwise and anticlockwise direction.</li> <li>• Squeeze and make a fist.</li> <li>• Ensure you maintain a good upright posture in your sling.</li> </ul>	

Continue shoulder girdle, wrist and hand mobility exercises until you are advised otherwise by your physio.

Continue elbow exercises (while sitting, if you had a SLAP lesion).

Begin gentle pendulum exercises:

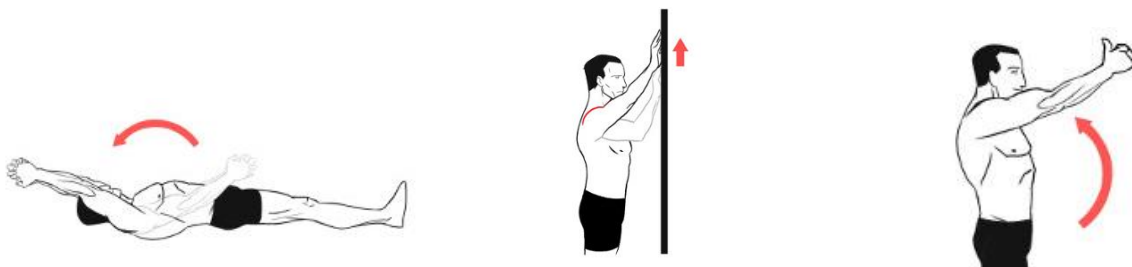
- In a standing position, lean forwards and allow the arm to hang pointing towards the floor.
- Then gently circle the arm.



**Only attempt the following exercises if your surgeon or physiotherapist advises.**

Begin passive exercises, progressing to active assisted, then active as comfort allows:

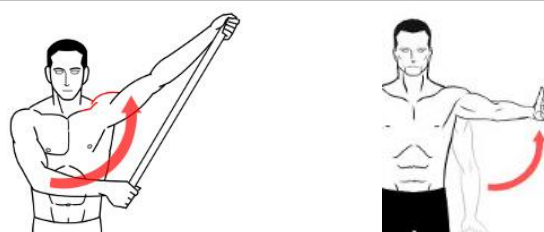
- Laying on your back use the good arm to support the operated arm and lift it straight above your head (see below left).
- Standing, slide the operated arm up the wall in front of you (see below centre).
- Standing, lift the operated arm above your head unassisted (see below right).



- Sitting or standing, tuck your elbows into your side, elbows bent and hold a stick or broom between your hands (see below centre). Use the good arm to assist the operated arm, twist it away from the body as comfort allows.
- Standing or sitting, tuck the elbow of your operated arm into your side, elbow bent (see below right). Turn/twist the arm away from the body unassisted.



- Standing, holding a stick or broom, use the good arm to assist the operated arm, lift it from the body and upwards (see below left).
- Standing, lift the operated arm away from the body and upwards unassisted (see below right).



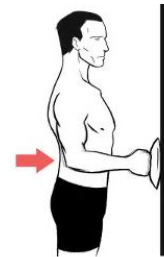
- Standing, lower a towel down your back using your good hand. Reach up behind your back grasping the towel in your operated side's hand. Lift the operated arm as much as possible up behind the back, using the good arm to assist it (see below left).
- Standing, lift the operated arm up behind the back unassisted. A towel under the arm provides a small amount of traction and may make the exercise more comfortable but is not essential (see below right).



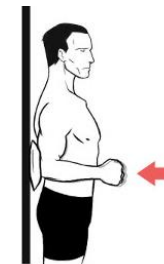
Begin gentle cuff isometric exercises as pain allows.

**Do not force or overstretch!**

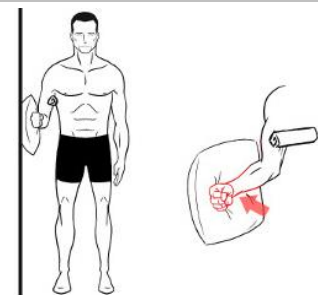
- Arm at your side, elbow bent to 90 degrees, stand facing the wall.
- Apply pressure forwards through the wall.



- Arm at your side, elbow bent to 90 degrees, stand with your back to the wall.
- Apply pressure back through the wall.



- Arm at your side, elbow bent to 90 degrees, stand next to the wall.
- Apply pressure out through the wall as if turning the arm outwards. Using a pillow as shown in the picture may make the exercise more comfortable but is not essential.



- Arm at your side, elbow bent to 90 degrees, stand to the side of a door frame facing the wall.
- Apply inward pressure against the door frame.



### Further information

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Visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

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