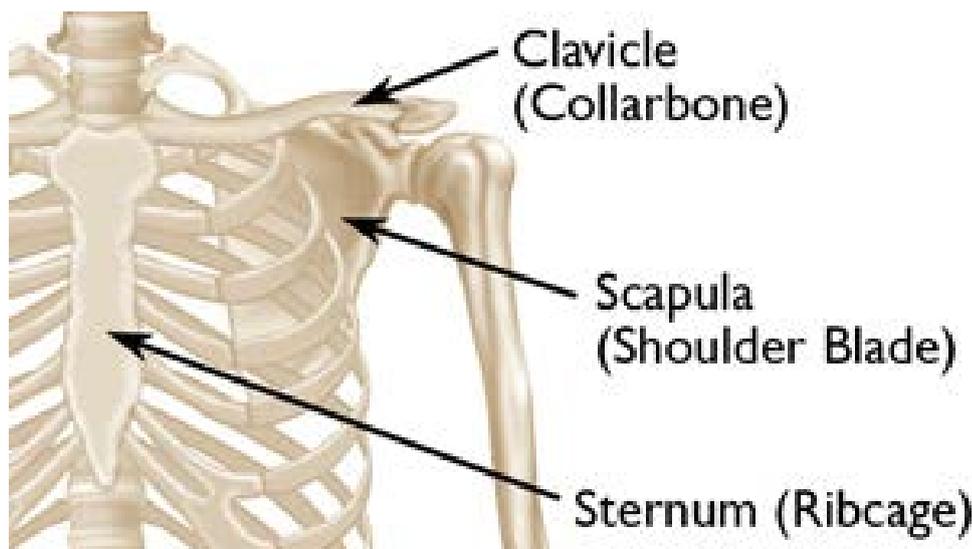


Clavicle fracture - Open Reduction Internal Fixation (ORIF)

Introduction

Your clavicle (collarbone) is a long thin bone sitting between your shoulder blade and sternum. It is part of the shoulder girdle and is important for shoulder stability and range of movement. The clavicle can be easily fractured from a direct force or falling onto an outstretched arm.

Depending on the location and presentation of your fracture, it may be necessary to have surgery to stabilise the bone with plates/screws/wire to bring together the ends of the fracture so that they can heal.



General guidelines

Pain

A nerve block may be used during the procedure, which means that immediately after the operation the clavicle, shoulder and arm can feel numb for a few hours. The clavicle 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 clavicle for up to 10 minutes; allow at least 20 minutes between each application of the ice pack.

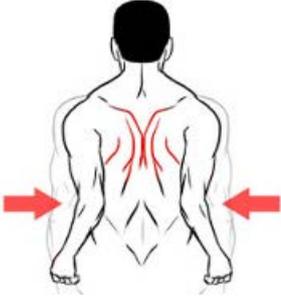
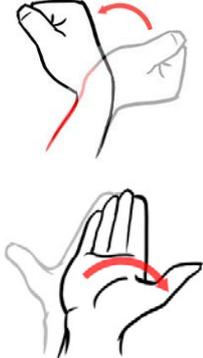
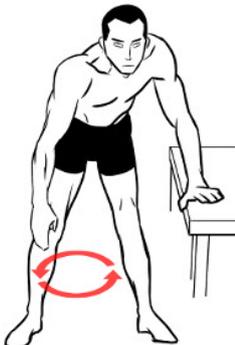
Wearing a sling

You will return from theatre wearing a sling. The sling is worn for 2-3 weeks. Initially you will only remove the sling for specific exercises. Your physiotherapist will advise you of these.

Exercises

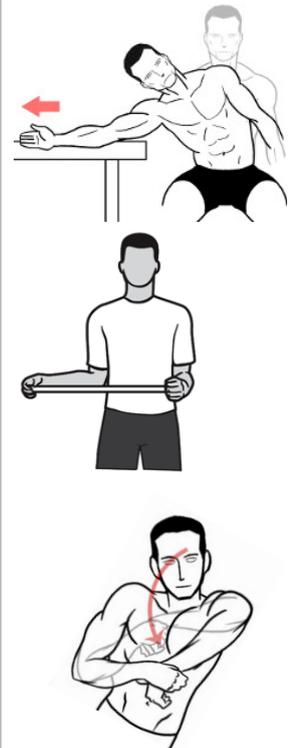
Following surgery it is important you follow a strict regime of exercises (outlined below). Throughout your rehabilitation you must always be guided by your pain. Do not force, or over stretch the shoulder. It is advised that you do the exercises a minimum of 10 of each, three times a day.

0 – 3 weeks

<p>Begin shoulder girdle exercises:</p> <ul style="list-style-type: none"> – Shrug the shoulders up to the ears. – Roll the shoulders backwards. – Squeeze the shoulder blades together. 	
<p>Begin elbow exercises:</p> <ul style="list-style-type: none"> – Bend and straighten the elbow. – With a bent elbow turn the forearm over in a clockwise and anti-clockwise direction. 	
<p>Begin wrist and hand exercises:</p> <ul style="list-style-type: none"> – Bend the wrist forwards and backwards – Tilt the wrist from side to side. – Circle the wrist in a clockwise and anticlockwise direction. – Squeeze and make a fist. – Ensure you maintain a good upright posture in your sling. 	
<p>Begin gentle pendulum exercises:</p> <ul style="list-style-type: none"> – In a standing position, lean forwards and allow the arm to hang pointing towards the floor. – Then gently circle the arm. 	

Begin passive shoulder exercises, do not force or push into pain:

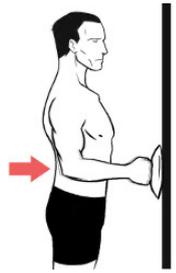
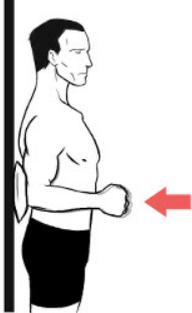
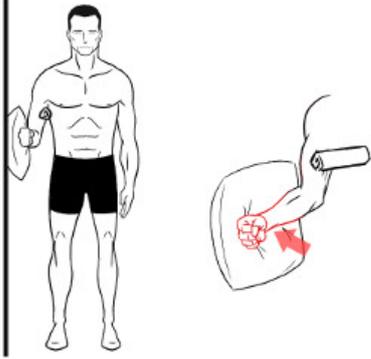
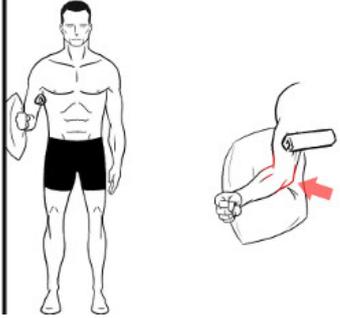
- Sitting in a chair alongside a table, slide the arm along the table top away from the body, do not let your shoulder flex over 90 degrees.
- Standing, tuck your elbows into your side, elbows bent, hold a stick or broom. Use the good arm to push the bad arm away from the body keeping the elbows tucked into the side (a rotational movement of the shoulder).
- Sit in a chair with the elbow of your operated arm resting on a table. Bend the elbow to 90 degrees fingers pointing towards the ceiling. Then add gentle pressure through the wrist using the other hand, pushing the hand towards your stomach (a rotational movement of the shoulder).

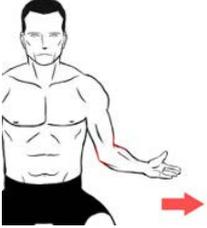
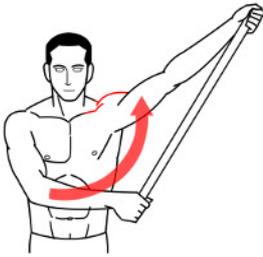
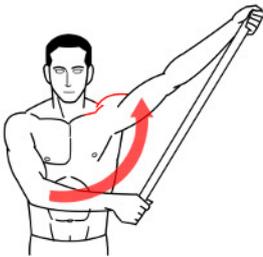
**3 weeks onwards**

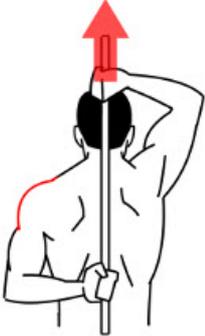
- Continue shoulder girdle, elbow, wrist and hand mobility exercises.
- Continue pendulum exercises.
- Weaning out of sling.
- Scar tissue management – regularly massage your scar once there is no longer a scab, and stitches have been trimmed or have dissolved. You may wish to use a lubricant like moisturiser or oil. Your physiotherapist can advise and demonstrate on technique.

Progress passive exercises, to active assisted, then active, do not force or push into pain:

- Laying on your back, use the good arm to support the bad arm and lift it straight above your head (passive).
- Standing, slide the operated arm up the wall in front of you (active-assisted).
- Standing, lift the operated arm above your head unassisted (active).

<p>Begin gentle cuff isometric (static) exercises as pain allows, <u>do not force or push into pain</u>:</p> <ul style="list-style-type: none"> – Arm at your side, elbow bent to 90 degrees, stand facing the wall. – Apply pressure forwards through the wall. 	
<ul style="list-style-type: none"> – Arm at your side, elbow bent to 90 degrees, stand with your back to the wall. – Apply pressure back through the wall. 	
<ul style="list-style-type: none"> – 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. 	
<ul style="list-style-type: none"> – Arm at your side, elbow bent to 90 degrees, stand inside a door frame. – Apply pressure in against the door frame. 	
<ul style="list-style-type: none"> – Arm at your side, elbow bent to 90 degrees, stand next to the wall. – Apply an outward pressure into the wall through your elbow. 	

<ul style="list-style-type: none"> - Sitting or standing, tuck your elbows into your side, elbows bent, hands grasped together. Use the good arm to push the bad arm away from the body as comfort allows. 	
<ul style="list-style-type: none"> - Sitting or standing, tuck your elbows into your side, elbows bent hold a stick or broom. Use the good arm to assist the bad arm away from the body as comfort allows. 	
<ul style="list-style-type: none"> - Standing or sitting, tuck your bent elbow into your side, turn the arm away from the body unassisted. 	
<ul style="list-style-type: none"> - Standing, holding a stick or broom, use the good arm to push the operated arm away from the body, around and over your head. 	
<ul style="list-style-type: none"> - Standing, holding a stick or broom, use the good arm to assist the operated arm away from the body, around overhead. 	
<ul style="list-style-type: none"> - Standing, lift the arm away from the body, around overhead unassisted. 	

<ul style="list-style-type: none"> – Standing, lower the stick down your back using your good hand. Reach up behind your back grasping the stick in your operated side's hand. Use the good arm to gently lift the hand up the back. 	
<ul style="list-style-type: none"> – 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 bad arm as much as possible up behind the back, using the good arm to assist it. 	
<ul style="list-style-type: none"> – Standing, lift the bad arm up behind the back unassisted. A rolled up towel provides a small amount of traction and may make the exercise more comfortable but is not essential. 	

6+ weeks

- Continue shoulder girdle, elbow, wrist and hand mobility exercises and postural awareness.
- Push for full range of movement.
- Begin strengthening activities.

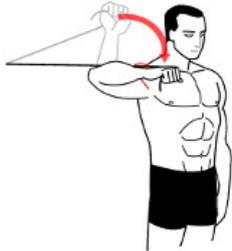
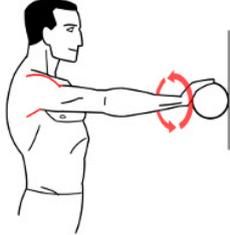
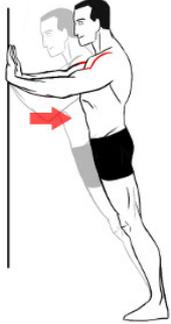
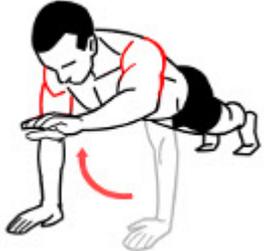
Begin stretching of limited movements:

(If you are having trouble reaching your hand up your back, use a towel or grasp hand behind your back and pull or lift the arm up the back to stretch the movement.) Lie on the operated shoulder, lift the arm to shoulder height resting on the bed and bend the elbow to 90 degrees.

- Use the opposite hand to push the operated sides palm down towards the bed stretching the shoulder.
- If you are having trouble reaching across to your opposite shoulder, pull the arm across the body, add a stretch by pulling on the elbow.



<ul style="list-style-type: none"> - If you are having trouble reaching across to your opposite shoulder, lean forward through a door frame, stretching open the chest and shoulders. 	
<p>Progress rotator cuff strengthening and begin closed chain exercises:</p> <ul style="list-style-type: none"> - Standing or sitting, attach Theraband (provided by your physio) to door handle, elbow tucked into side. A rolled up towel may make the exercise more comfortable but is not essential. - Grasp Theraband, pull band in to touch stomach slowly and controlled. - Return to start position. 	
<ul style="list-style-type: none"> - Standing or sitting, attach Theraband to door handle, elbow tucked into side. - Grasp Theraband, rotate arm and pull band away from body slowly and controlled. - Return to start position. 	
<ul style="list-style-type: none"> - Lying on your back, lift your arm out to the side to shoulder height. - Bend your elbow to 90 degrees, hand pointing towards the ceiling. - Slowly, in a controlled manner, rotate the arm, pushing the palm towards the bed. - Then slowly rotate backwards, pushing the back of the hand towards the bed. - Hold a light weight to increase difficulty. 	
<ul style="list-style-type: none"> - Lying on your good side, tuck your elbow into your side. - Hand pointed towards the ceiling; slowly rotate your arm, bringing your hand to your stomach. - Hold a light weight to increase difficulty. 	

<ul style="list-style-type: none"> – Standing, tie a knot in the end of your Theraband. – Throw it over the top of a door and close the door holding the band in place. – Slowly rotate the arm, keeping the upper arm still and bringing the hand forwards towards the floor. 	
<ul style="list-style-type: none"> – Standing, tie a knot in the end of your Theraband. – Throw it over the top of a door and close the door holding the band in place. – Slowly rotate the arm, keeping the upper arm still and bring the hand back, finishing with the hand pointing towards the ceiling. 	
<p>Proprioceptive exercises and core stability work:</p> <ul style="list-style-type: none"> – Standing, lift arm straight in front to shoulder height. – Roll a ball in different directions along the wall. 	
<ul style="list-style-type: none"> – Standing, hands shoulder width apart, shoulder height, resting on wall, lower body to wall. – Push through arms. – Return to starting position. 	
<ul style="list-style-type: none"> – On hands and knees, or a press up position, lift one arm straight in front of body. – Slowly lower back to start position. – Repeat on opposite arm. – To increase difficulty, lift opposite leg at the same time. 	

3 months

Continue with strengthening exercises.

Can commence heavy lifting, heavier physical duties / activities.

Milestones

Week 3	Comfortable passive/active assisted range of movement up to 90°.
Week 6	Sling discarded. 75% to full range of movement.
Week 12	Full range of movement. Return to normal activity.

Resuming normal activities

Timings for returning to functional activities are approximate and will differ depending upon the individual. However, the earliest that these activities may commence are:

- Driving: earliest at 4 weeks and when safe
- Lifting: As able
- Swimming: breaststroke: 6-8 weeks; freestyle at 3 months
- Golf: from 3 months
- Contact sports: from 3-6 months (football, martial arts, horse riding, racquet sports)
- Return to work: dependent upon your occupation but sedentary jobs (no lifting) may return at 10 days to 6 weeks. Medium work (light lifting below shoulder level) from 6 weeks. Heavy work (above shoulder height) at 3-6 months.

Note: These are guidelines only.

Further information

Physiotherapy Outpatient Department Physiotherapy East
T: 0118 322 7811 F: 0118 322 7815

For questions or concerns please contact: Jonathon Lee - ESP physiotherapist (shoulders)
E-mail: jonathon.lee@royalberkshire.nhs.uk (Professor Levy)
or Catherine Anderson – ESP physiotherapist (shoulders)
catherine.anderson@royalberkshire.nhs.uk (Mr Malhas)

Visit www.royalberkshire.nhs.uk www.readingshoulderunit.com

Images courtesy of <http://www.pt-helper.com>

This document can be made available in other languages and formats upon request.

Physiotherapy, June 2017

Review due: June 2019