

## Shoulder Replacement

This information has been produced to help you gain the maximum benefit and understanding of your operation.

It includes the following information:

- Key points
- About your shoulder
- About the shoulder replacement operation
- Risks and alternative solutions
- Frequently asked questions
- Exercises
- Contact details
- Useful links

## Key Points

If you are considering having a shoulder replacement remember these key points

1. this is a good operation for pain relief but it is less reliable at improving movement and will not restore normal strength to the arm
2. most people go home on the second postoperative day
3. you will have a general anaesthetic
4. you will be given an injection to numb the arm so that you don't have pain when you wake up. The arm may feel 'dead' for up to 48 hours afterwards
5. you will be in a sling for up to 6 weeks
6. you will not be driving for at least 6 weeks
7. up to 3 months before returning to work (if a manual worker) but much sooner if not a manual worker
8. you can return to sport in a progressive fashion but not competitively for 3 months
9. this is a safe, reliable and effective operation for 90% of people
10. this is not a quick fix operation - improvement in symptoms may take many months to occur
11. [www.shoulderdoc.co.uk](http://www.shoulderdoc.co.uk) is a reputable and useful British website for further information

## The shoulder

The shoulder joint is a ball and socket joint. Most shoulder movement occurs where the ball at the top of your arm bone (humerus) fits into the socket (glenoid) which is part of the shoulder blade (scapula). See picture below.

## Why the joint needs replacement

The most common reasons for replacing the shoulder joint are for arthritis, either osteoarthritis (wear and tear) or rheumatoid arthritis. It may also be necessary following a fracture or bad accident.

**Osteoarthritis** can affect the shoulder joint in the same way as the hip or knee. Primary osteoarthritis describes arthritis which comes on in the shoulder for no clear reason. In fact this form often runs in families. Secondary osteoarthritis of the shoulder is a consequence of previous injuries, infection, surgery, dislocation etc.

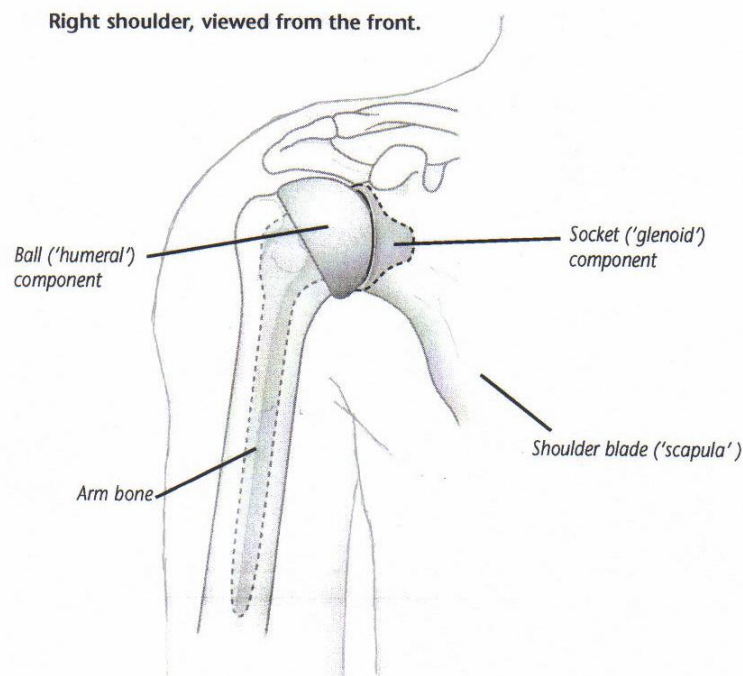
**Rheumatoid arthritis** is a total body condition which affects many joints at the same time. You will know whether you have rheumatoid arthritis and will probably have had it for some years.

Arthritis causes the shoulder joint to become painful and difficult to move. Sometimes, the deep layer of muscles (the 'rotator cuff') which control shoulder movements is also worn or damaged.

## About the shoulder replacement

The operation replaces the damaged joint surfaces. It consists of a metal replacement for the ball component and occasionally a plastic cup is also used to replace the socket. See the picture below.

### *Right shoulder, viewed from the front*



The main reason for doing the operation is to reduce the pain in your shoulder. Ultimately, you may also have more movement in your shoulder. This depends on how stiff the joint was before the operation and if the muscles around the shoulder are damaged and able to work normally.

You will have a full general anaesthetic (i.e. you will be asleep). In order to control the pain after the operation you may be given a local anaesthetic injection to numb the arm for the first few hours.

You are sat up on the operating table. A 10cm cut is made over the top and down the side of the shoulder. The underlying muscle is carefully split to expose and inspect the deep layer of tendons (rotator cuff). One of these tendons (subscapularis) is carefully lifted away from the bone so that the shoulder joint can be dislocated. Using special instruments the head of the humerus bone is reshaped back to a sphere. A resurfacing shoulder replacement is then pushed onto the top of the humerus (see picture below). This particular shoulder replacement does not require cement and provides very good long-term pain relief. Rarely, the glenoid side of the joint is also replaced with a shallow plastic cup.

Occasionally, it is not possible to use the resurfacing shoulder so a stemmed replacement will be inserted with the use of cement. This too has good long-term results. Once the new shoulder has been inserted the rotator cuff tendons are repaired and the wound is closed.

## What are the risks of the operation?

All operations involve an element of risk. We do not wish to over-emphasise the risks, but feel that you should be aware of them.

They include:

- a) **Anaesthetic** complications such as sickness and nausea or rarely cardiac, respiratory or neurological (less than 1% each, i.e. less than one person out of one hundred).
- b) **Infection** – this is usually a superficial wound problem. Occasionally, deep infection may occur after the operation (less than 1%).
- c) **Stiffness or pain** in the shoulder (less than 1%). Incomplete relief of pain occasionally occurs but rarely requires further surgery. Stiffness is sometimes a problem. If it is due to very poor tendons then the movement may never improve much, but if your tendons are of good quality then you can expect the movement to improve with physiotherapy and time for up to 18 months after the operation.
- d) **Nerve and blood vessel damage** around the shoulder (less than 1%).
- e) **Dislocation** is very rare.

- f) **Revision surgery** (the need to redo the surgery; 5-10% at 10 years). As with all joint replacements the components can loosen. This is not normally a problem until several years after the operation.

Please discuss these issues with the doctors if you would like further information.

## Alternative solutions

You have probably tried most of these options before considering surgery. They include:

1. Simple painkillers.
2. Anti-inflammatory drugs.
3. Altering your activities to avoid painful movements such as bringing crockery and jars down from high shelves to surfaces at waist height or below.
4. Physiotherapy and gentle swimming can be very helpful.
5. Glucosamines and chondroitin sulphate can help some people.
6. Cortisone injections may provide some short lasting benefit in some people.

## Questions that we are often asked about the operation

### *Will it be painful?*

*Please purchase packets of tablets such as paracetamol (painkillers) and anti-inflammatories (e.g. nurofen, ibuprofen, diclofenac) before coming into hospital.*

- During the operation local anaesthetic will be put into your shoulder to help reduce the pain.
- The anaesthetist may discuss the option of numbing the whole arm for a few hours after the operation.
- Be prepared to take your tablets as soon as you start to feel pain.
- Take the tablets regularly for the first 2 weeks and after this time only as required.
- If stronger tablets are required or if you know you cannot take paracetamol or anti-inflammatories talk to your GP.
- The amount of pain you will experience will vary and each person is different. Therefore take whatever pain relief **you** need.

You may find ice packs over the area helpful. Use a packet of frozen peas, placing a piece of wet paper towel between your skin and the ice pack. Use a plastic bag to prevent the dressings getting wet until the wound is healed. Leave on for 5 to 10 minutes and you can repeat this frequently (4 -8 times) throughout the day.

***Do I need to wear a sling?***

The sling is for comfort and to protect the shoulder after the operation. You can take it on and off as you wish and you do not need to have your arm strapped to your body.

The therapists and nurses will show you how to take the sling on and off. You will gradually wear the sling less over 3-6 weeks.

You may find it helpful to wear the sling at night (with or without the body strap), particularly if you tend to lie on your side. Alternatively, you can use pillows in front of you to rest your arm on.

If you are lying on your back to sleep you may find placing a thin pillow or folded towel under your upper arm will be comfortable.

***Do I need to do exercises?***

Yes, the physiotherapist will see you while you are in hospital and you will be taught the appropriate exercises. You will start exercises to move the shoulder on the first day after the operation. You will then need to continue with exercises when you go home and outpatient physiotherapy appointments will be organised for you.

You will need to get into the habit of doing regular daily exercises at home for several months. They will enable you to gain maximum benefit from your operation. The exercises aim to stop your shoulder getting stiff and strengthen muscles. They will be changed as you progress and made specific to your shoulder and lifestyle.

***When can I go home?***

Most people stay for 1 or 2 nights after the operation. You can stay longer if necessary because of pain or home circumstances.

***What do I do about the wound?***

Keep the wound dry until it is healed. This is normally for 10-14 days. You can shower or wash and use ice packs but protect the wound with cling film or a plastic bag. Avoid using deodorant, talcum powder or perfumes near or on the scar.

There is one long dissolvable stitch which looks like fishing line. Leave this alone, it does not need to be removed and the ends will drop off after 2 or 3 weeks.

***When do I return to the clinic?***

This is usually arranged for fairly soon after discharge to be seen by a physiotherapist. You may not need to see the consultant for up to 3 months after the operation. Please discuss any queries or worries you may have when you are at the clinic. Appointments are made after this as necessary.

### ***Are there things that I should avoid?***

#### **For the first 6 weeks.**

1. Avoid taking your arm out to the side and twisting it backwards. For example, when putting on a shirt or coat, put your operated arm in its sleeve first. Try not to reach up and behind you (e.g. seat belt in car). Avoid forceful movements of the arm across your body as well. It is normally too painful / difficult to do.

Do not force these movements for 3 months.

2. Avoid leaning with all your body weight on your arm with your hand behind you. For example, leaning heavily on your arm to get out of a chair.

### ***How am I likely to progress?***

This can be divided into four phases:

#### **Phase 1. Immediately after the operation until you are discharged.**

- You will start to move the shoulder with the help of the physiotherapist, but to begin with you will be quite one-handed. If your dominant hand (right hand if you are right-handed) is the side with the operation, your daily activities will be affected and you will need some help.
- Activities that are affected include dressing, bathing, hair care, shopping and preparing meals. The physiotherapist will discuss ways and show you how to be as independent as possible during this time.
- Before you are discharged from hospital, the staff will help you plan for how you will manage when you leave. Please discuss any worries with them.

#### **Phase 2. After you have been discharged and for up to 6 weeks after the operation.**

The pain in your shoulder will gradually begin to reduce and you will become more confident. Wean yourself out of the sling slowly over this time, using it only when you feel necessary. Do not be frightened to try and use your arm at waist level for light tasks. You will be seeing a physiotherapist and doing regular exercises at home to get the joint moving and to start regaining muscle control. If you feel unsure about what you can or cannot do, please discuss this with the physiotherapist. Lifting your arm in front of you may still be difficult at this stage.

#### **Advice for activities during first 6 weeks:**

1. **Getting on and off seats.** Raising the height can help, e.g. extra cushion, raised toilet seat, chair or bed blocks.
2. **Getting in and out of the bath.** Using bath boards may help. (Initially you may prefer to strip wash.)
3. **Hair care and washing yourself.** Long handled combs, brushes and sponges can help to stop you twisting your arm out to the side.
4. **Dressing.** Wear loose clothing, either with front fastening or which you can slip over your head. For ease also remember to dress your operated arm first and undress

your operated arm last. In addition dressing sticks, long handled shoe horns, elastic shoe laces, sock aids and a 'helping hand' can help.

5. **Eating.** Use your operated arm as soon as you feel able for cutting up food and holding a cup. Non slip mats and other simple aids can help.
6. **Household tasks/cooking.** Do light tasks as soon as you feel able e.g. lift kettle with small amount of water, light dusting, ironing, rolling pastry. Various gadgets can help you with other tasks.

### **Phase 3. Between 6 and 12 weeks.**

The pain should be lessening. The exercises are now designed to improve the movement available and get the muscles to work, taking your arm up in the air or away from your body when you are sitting or standing. Overall, you will have an increasing ability to use your arm for daily tasks.

### **Phase 4. After 12 weeks.**

You can progress to more vigorous stretches if this is necessary for the activities that you want to do. If the muscles are weak because before the operation the shoulder pain stopped you being able to use them, you should find that you will regain the strength in them with regular exercise. Strength can continue to improve for many months, even up to 18 months. **However, unfortunately sometimes the muscles are badly damaged and then you may find it is difficult to regain movement even though you are trying very hard.** Even if the muscles do not work properly, the pain in the shoulder joint should still be much less than before your operation and often you can find small 'trick' movements that enable you to do what you want to do.

Most improvement will be felt in the first 6 months, but strength and movement can continue to improve for 18 months to 2 years.

### ***When can I return to work?***

Return to work depends very much on your specific job and whether or not you need to drive. It is illegal to drive while in a sling. If you can get to work then desk workers can return as soon as you feel able, sometimes after about 3 weeks although you will have to be able to work one-handed. Most people need about 6-8 weeks off work although heavy manual workers will require about 3 to 6 months off work. Prolonged, heavy overhead activity may never be possible. You will usually be signed off work for 3 weeks and this can then be reviewed at your first clinic appointment. Your employers need to know this.

### ***When can I drive?***

It is illegal to drive while wearing a sling. You may start to drive once the sling has been discarded but not until you are able to safely control the car. This time period is very variable but is normally about 6-8 weeks after the operation. You may find it is more difficult if your left arm has been operated on because of using the gear stick/handbrake. Check you can manage all the controls and it is advisable to start with short journeys. The seat belt may be uncomfortable initially but your shoulder will not be harmed by it.

### ***When can I participate in my leisure activities?***

Your ability to start these activities will be dependent on pain, range of movement and the strength that you have in your shoulder following the operation. Please discuss activities in which you may be interested with the therapists or hospital doctor. Start with short sessions, involving little effort and gradually increase.

General examples:

- Swimming – breaststroke after 6 weeks, freestyle 3 months. You may have difficulty with vertical steps into the pool!
- Gardening (light tasks e.g. weeding) after 6-8 weeks (avoid heavier tasks e.g. digging).
- Bowls – after 3-6 months.
- Golf – after 3 months.
- Tennis, badminton or squash – after 4-6 months.

These are approximate and will differ depending upon each person's individual achievements. However, they should be seen as the earliest that these activities may commence.

### **Exercises – General points**

- Use painkillers and/or ice packs to reduce the pain before you exercise.
- It is normal for you to feel aching, discomfort or stretching sensations when doing these exercises. However, if you experience intense and lasting pain (e.g. more than 30 minutes), it is an indication to change the exercise by doing it less forcefully, or less often. If this does not help, discuss the problem with the physiotherapist.
- Certain exercises may be changed or added for your particular shoulder.
- Do short, frequent sessions (e.g. 5-10 minutes, 4 times a day) rather than one long session.
- Gradually increase the number of repetitions that you do.
- Aim for the repetitions your therapist advises, the numbers stated here are rough guidelines.
- After 3-4 weeks you can increase the length of time exercising.

### **Phase 1 exercises**

**From operation day to 10-14 days after** (shown for left arm).

#### **1. Lean forwards.**

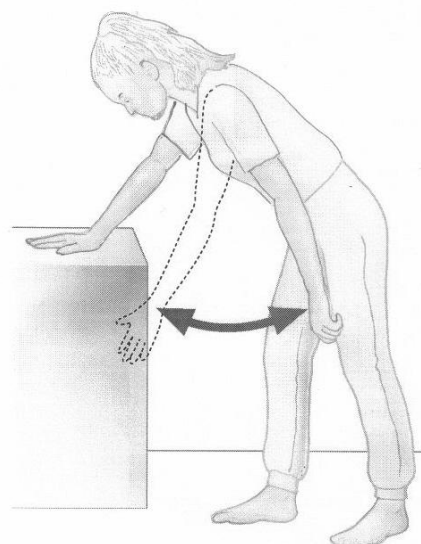
Let your arm hang freely.

Start with small movements.

Swing your arm:

- (i) forwards and backwards
- (ii) side to side
- (iii) in circles

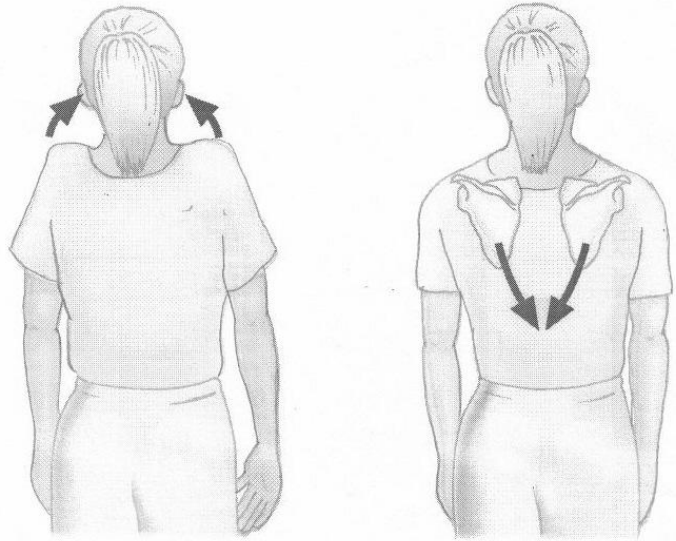
Repeat each movement 5 times.



**2. Sit or stand.**

Shrug shoulders up and forwards. Then roll them down and back.

Repeat 10 times.

**3. Lying on back, folded towel under arm.**

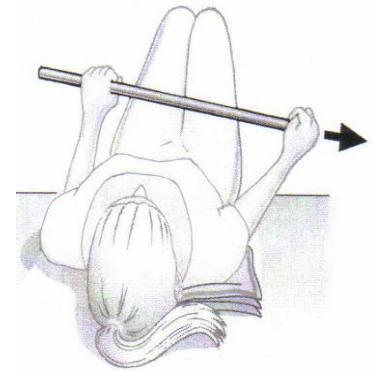
**Keep elbow to side.**

Hold stick in hands.

Move stick sideways, gently pushing the hand of your operated arm outwards as far as has been allowed by your consultant.

Do not over-stretch.

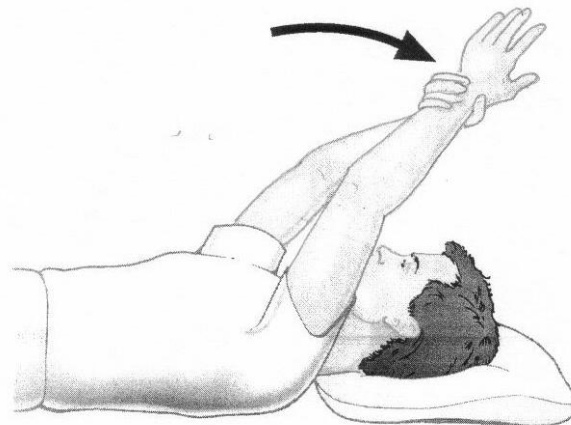
Repeat 5 times.

**4. Lying on your back.**

Support your operated arm with the other arm and lift up overhead.

Start with your elbows bent, then progress to having arms straight.

Repeat 10 times.



## Phase 2 exercises

From 10-14 days after your operation.

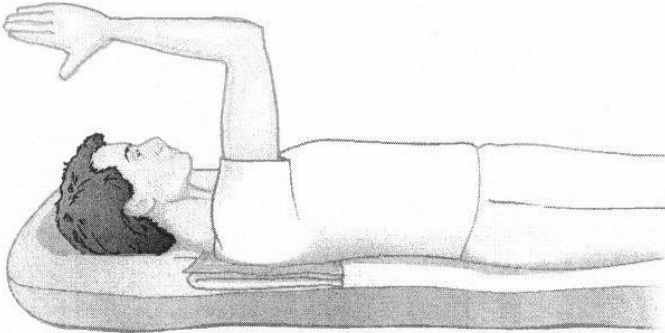
### 5. Lying on your back, elbow bent.

Hold your operated arm up as before (in exercise 4), but once it is vertical try and keep it there without the support of the other arm.

Gradually lower and raise your arm in an arc, until you can lift it from the bed.

Once this is easy progress to exercise number (13) standing.

Repeat 10 times.

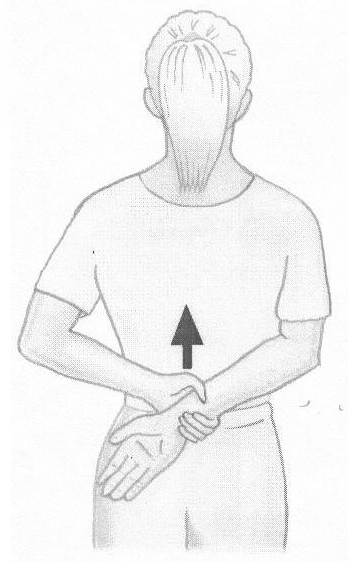


### 6. Standing with arms behind your back.

Grasp the wrist of your operated arm and gently stretch the hand towards the opposite buttock.

Then slide your hands up your back.

Repeat 5 times.

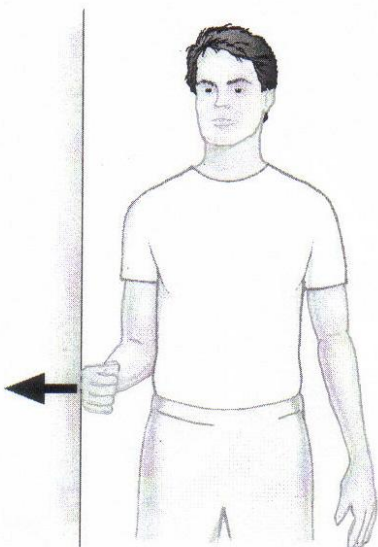


### 7. Standing with your operated arm against a wall.

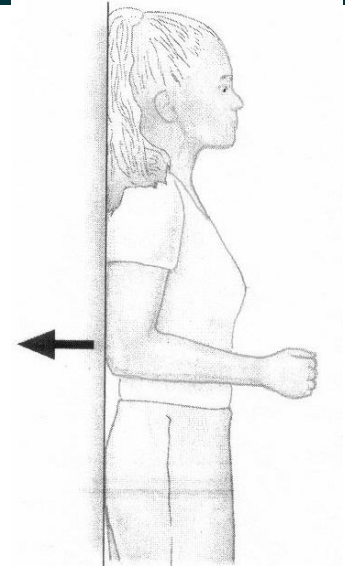
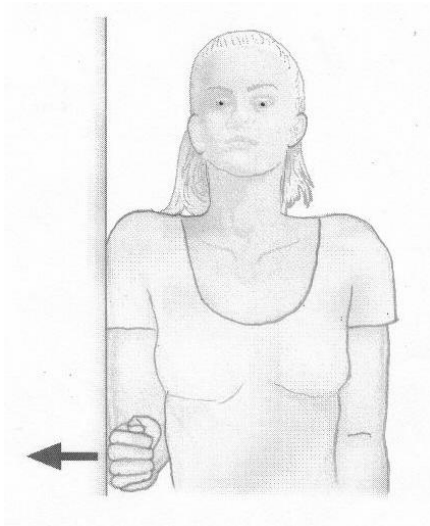
Bend your elbow. Push your **hand** into the wall.

Hold for 10 seconds.

Repeat 5 times.

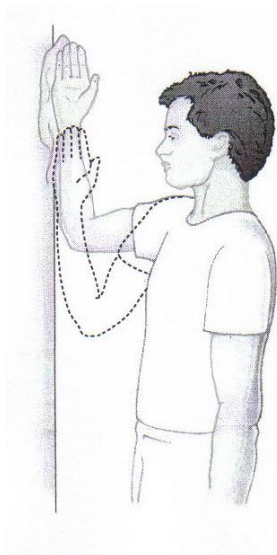
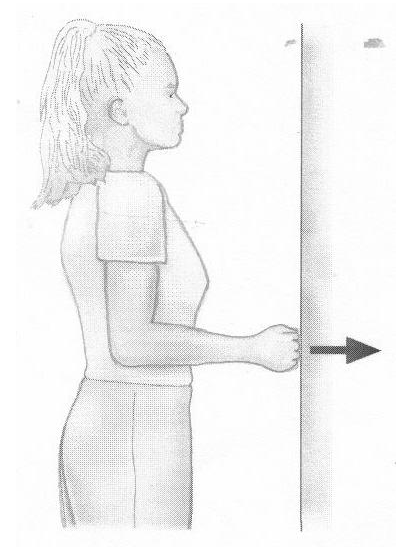


- 8. Stand with back against wall.**  
Keep arm close to side, elbow bent.  
Push the elbow back into the wall. Hold for 10 seconds.  
Repeat 5 times.



- 9. Stand sideways with operated arm against wall.**  
Keep arm close to side, elbow bent.  
Push elbow into wall.  
Hold for 10 seconds.  
Repeat 5 times.

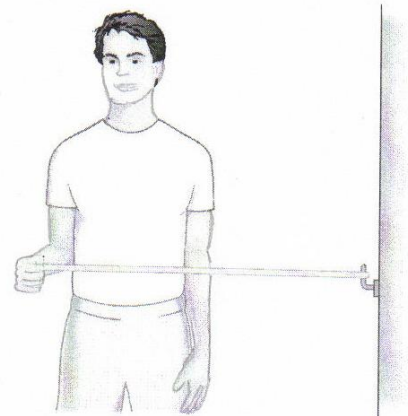
- 10. Standing facing a wall.**  
Keep arm close to side and elbow bent to a right angle.  
Push your fist into the wall (use a towel if this is uncomfortable for your hand).  
Hold for 10 seconds.  
Repeat 5 times.



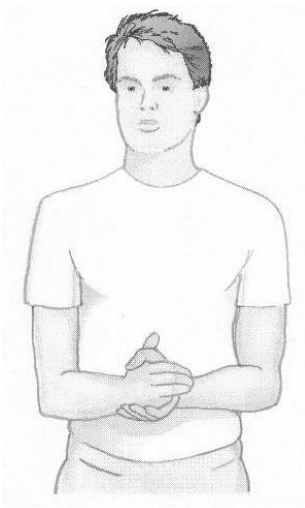
- 11. Standing facing a wall.**  
Elbow bent and hand resting against wall. Use a paper towel between the hand and wall (to make it easier).  
**Slide** your hand up the wall. At first you can give support to your elbow with your other hand.  
Gradually stretch higher up the wall then come down slowly trying to make the movements smooth.  
Repeat 5 times and progress by moving away from the wall.

### Start the following exercise 3 weeks after operation

- 12. Sitting or standing with your elbow bent.**  
 (Picture shows this exercise being done with a piece of elastic. Do not use this elastic until the physiotherapist recommends it.)  
 Keep your elbow into your side.  
 Start with your hand in front of your stomach and pull your hand outwards until it is in front of you.  
**Control** the movement on return and do NOT try to pull out too far.  
 Repeat 5 times.

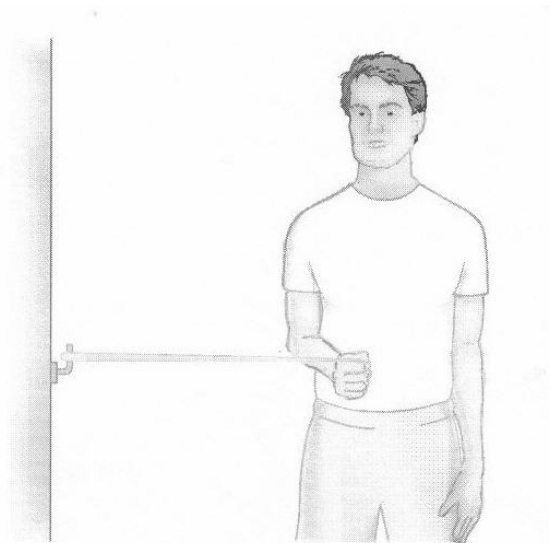


### Start the following exercises 4 -6 weeks after your operation



- 13. Sitting or standing with your elbow bent.**  
 Stand with your arm close to your side and with your elbow bent.  
 Push the palm of your hand into other hand (or against a door frame).  
 Hold 10 seconds.  
 Repeat 5 times.

- 14. Stand with arm close to body and elbow bent.**  
 Hold the rubber exercise band.  
 Pull your hand towards your stomach.  
 Keep the elbow in.  
 Control the movement on return.  
 Repeat 5 times.



**15. Stand with hands clasped in front of you.**

Lift your arms up in air.

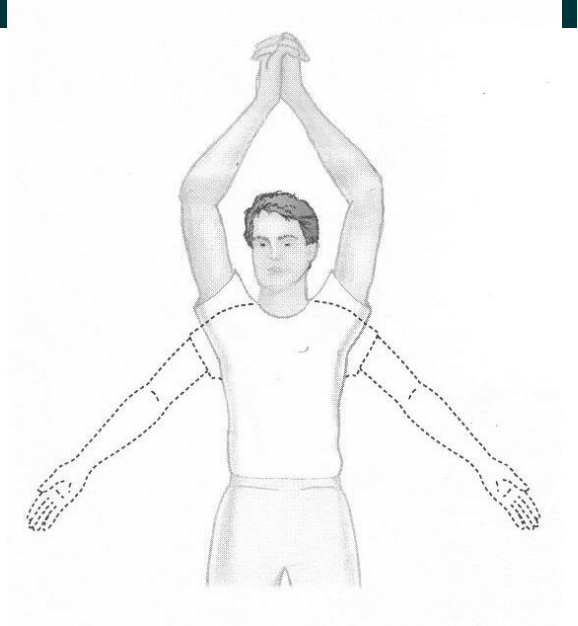
Separate your arms sideways, bend your elbows and lower them down.

Progress this by

i) reversing the movement (start by taking elbows out to the side).

ii) keeping the arms straight.

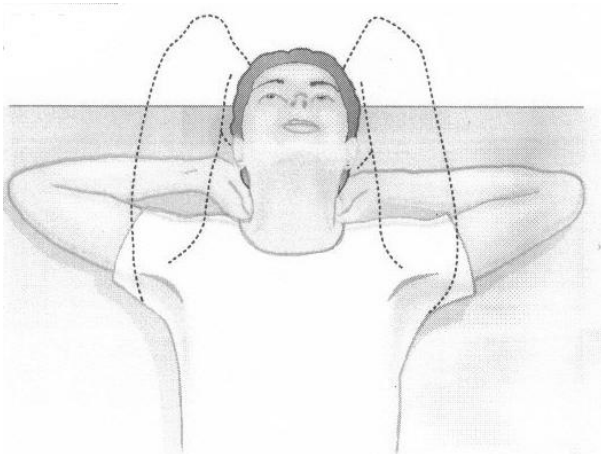
Repeat 5 times.

**16. Lying on back.**

Try and take both hands behind your neck with your elbows pointing up to the ceiling.

Then progress to allow elbows to **gently** move apart.

Repeat 3-4 times.

**Phase 3 continued and Phase 4**

There is great variation in what people can achieve during rehabilitation, therefore it is not possible to give all potential exercises. The physiotherapist will design an ongoing exercise programme for you that is specific to your shoulder and your needs.

Keep the exercises going until you feel there is no more improvement. This may continue for a year to 18 months... so think positive, keep at it and enjoy them.

## Contact details

### NHS

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[www.readingorthopaediccentre.com](http://www.readingorthopaediccentre.com)

## Useful links

[www.readingorthopaediccentre.com](http://www.readingorthopaediccentre.com)

[www.shoulderdoc.co.uk](http://www.shoulderdoc.co.uk)

[www.orthogate.org/patient-education](http://www.orthogate.org/patient-education)

[http://hcd2.bupa.co.uk/fact\\_sheets/html/shoulder\\_replacement.html](http://hcd2.bupa.co.uk/fact_sheets/html/shoulder_replacement.html)

[http://www.arthritisresearchuk.org/arthritis\\_information/arthritis\\_surgery/shoulder\\_and\\_elbow\\_surgery.aspx](http://www.arthritisresearchuk.org/arthritis_information/arthritis_surgery/shoulder_and_elbow_surgery.aspx)

This information sheet is not a substitute for professional medical care and should be used in association with treatment at your hospital. Individual variations requiring specific instructions not mentioned here might be required. It was compiled by Mr Harry Brownlow (Consultant Orthopaedic Surgeon), Emma Lean and Catherine Anderson (Specialist Physiotherapists) and is based on the information sheet produced by Jane Moser

(Superintendent Physiotherapist) and Professor Andrew Carr (Consultant Orthopaedic Surgeon) at the Nuffield Orthopaedic Centre in Oxford.