NHS

Royal National Orthopaedic Hospital
NHS Trust

A Patient's guide to

Reverse type Total Shoulder Replacement

This leaflet provides information, which will help you prepare for admission to hospital. Treatment is always planned on an individual basis so your experience may differ slightly from the information given within this leaflet.

The Shoulder and Elbow unit is a multidisciplinary team consisting of Specialist Consultant Surgeons, Specialist Training Registrars, Junior Doctors, a Clinical Nurse Specialist, Specialist Shoulder Physiotherapists and Occupational Therapists. All our staff are friendly and available to help answer any questions that you may have at any stage of your treatment.

Why do I need a Reverse Total Shoulder Replacement (rTSR)?

The most common reason for a Reverse Total Shoulder Replacement (rTSR) is arthritis where the joints have worn out and therefore may have become painful, swollen and restricted in movement. In addition the deep muscles and tendons supporting the shoulder are deficient.

A rTSR is primarily performed for relief of pain in the shoulder and the expected outcome is functional movement between chest and waist height. However as the pain improves you may find you have better movement and function.

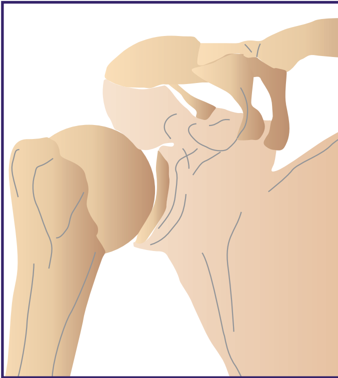
What is a Reverse Total Shoulder Replacement (rTSR)?

The shoulder joint is a ball (humeral head) and socket (glenoid) joint. A rTSR (prosthesis) replaces the ball and socket but in reverse so that the ball component is fitted on the socket side and the socket component is fitted on the ball side. This is to allow the remaining deltoid muscle to compensate for the non-working or absent rotator cuff muscles.

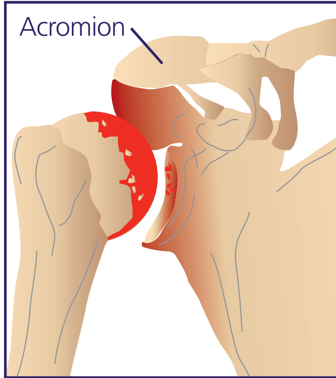
There are various types of prosthesis available and your Consultant will select the best type for you depending on the quality and quantity of your bone. In certain cases, a bespoke prosthesis may need to be designed and made for you. This type of prosthesis is designed from a CT scan of you shoulder joint.

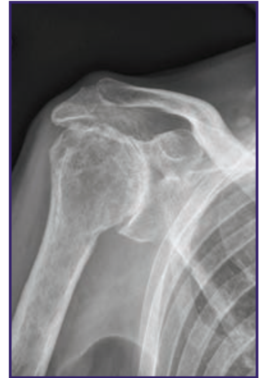
Basic anatomy pictures

Normal shoulder

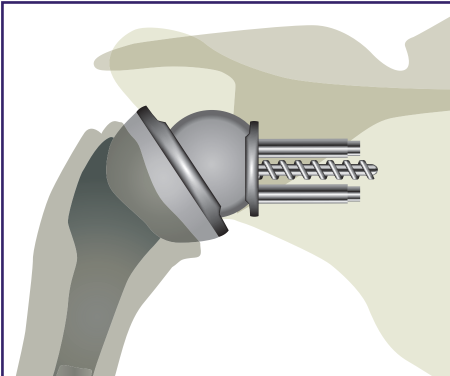


Arthritic shoulder

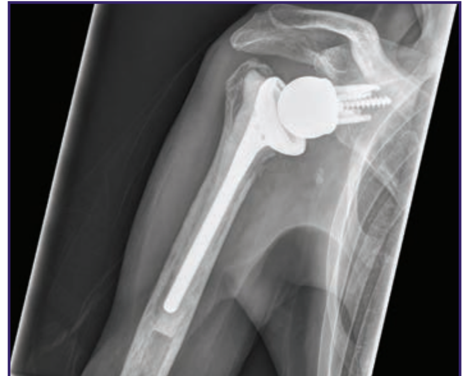




Reverse Total Shoulder Replacement



An example of a reverse total shoulder replacement



What happens before I come into hospital?

Pre-assessment

Shortly before your operation you will be asked to attend a pre-assessment anaesthetic and medical screening and may require a further pre-assessment appointment for the anaesthetist to see you. This is a medical examination to make sure you are well enough for surgery.

You may also be assessed by an occupational therapist (OT) and the Clinical Nurse Specialist at the pre-assessment clinic. The OT will review the information you provide, to highlight any functional concerns that may arise, on how you will cope with daily life following surgery. The Clinical Nurse Specialist will provide you with information about the sling that you will be expected to wear plus obtain your consent for recording information about your operation on the national joint register. If you have any particular concerns regarding how you will manage after your surgery please contact the OT team on the number provided at the back of this booklet.

Contraceptive Pill or hormone replacement therapy (HRT)

You may be required to stop any medicines containing hormones (for example, the oral contraceptive pill, HRT or Tamoxifen) six weeks before surgery. This will be confirmed by your GP or surgeon.

Rheumatoid Arthritis

People with inflammatory forms of arthritis, such as rheumatoid arthritis, who take traditional disease-modifying antirheumatic drugs (DMARD), or a type of biologic drug known as a TNF inhibitor, have an increased risk of infection following orthopaedic surgery. It is important to manage their medications optimally before undergoing such surgery. Please consult your rheumatologist to advise you on whether your medication needs to be stopped or adjusted prior to surgery, your surgeon will also discuss this with you pre-operatively.

Wearing nail polish, nail decorations or false nails (hands and feet)

Anaesthetic monitoring uses sensors which are clipped onto fingers or toes. Nail varnish, decorations or false nails will effect this monitoring, therefore these need to be removed prior to your surgery. Failure to do so could lead to your operation being cancelled or delayed. Additionally nail varnish, decorations or false nails can be a risk of potential infection.

Transport

Patients are responsible for their own transport to and from the hospital. You will be informed of your admission and discharge date in advance so that you can arrange for a relative, friend or taxi to transport you. In most cases it will not be appropriate to use public transport on discharge. Please note that patients who wish to claim their travel costs must prove that they are eligible to do so by providing relevant benefit documentation and travel receipts.

If you are eligible for patient transport the assessment team will be able to assess your needs through a brief telephone conversation. The interview remains completely confidential. Transport control room can be contacted on **0800 953 4138.**

What happens on the day of surgery?

On the morning of your surgery you will be greeted by the admission staff on your arrival. You will be assessed by the Surgeon and the Anaesthetist to perform a final check that you are fit for surgery and to answer any questions you may have. You will be asked to sign a form giving your consent to the operation.

Your surgery will be carried out by your Consultant and assistants possibly including other members of the surgical shoulder and elbow team as well as our Clinical Nurse Specialist who is an accredited Surgical First Assistant.

(Please note that most operating lists run all day and your operation may not take place until the late afternoon depending on the order and progress of the list.)

On the ward you will be asked to change into a hospital gown and then be taken to the anaesthetic room where your personal details and the operation will be confirmed once again before you are given an interscalene nerve block and a general anaesthetic.

Interscalene Nerve Block

An interscalene block is an injection of local anaesthetic around the nerves that supply your arm. The purpose of the injection is to provide pain relief for the operation. When you wake up from the general anaesthetic the shoulder and upper arm will be numb.

Interscalene block is offered for shoulder surgery because it is the best form of pain relief for this procedure in the first 24 hours after the operation. It is important that you are aware that it is not the only method for providing pain relief for this type of operation and also that it does not affect what the surgeon will do. Your anaesthetist will discuss the pros and cons of this procedure as well as the possible complications and alternatives with you on the day.

Are there any risks with this surgery?

Although rare, any operation involves potential risks or complications and it is important that you are aware of them.

General risks

- **Infection** – All possible precautions are taken to avoid infection during your operation. Your skin is thoroughly cleaned with a disinfectant solution and all clinical staff wear masks, sterile gowns and gloves throughout the procedure. If a superficial skin infection develops post-operatively it is usually treated with oral antibiotics.
- **Nerve/blood vessel damage around the shoulder** – The risk of this is less than 1%. If it happens we will investigate it carefully and take appropriate action to restore function.
- **Dislocation** – Initially a TSR is not as stable as a normal shoulder joint so there is a small chance of dislocation. This means that the ball . .comes out of the socket and will require a doctor to correct it or further surgery to relocate it back to its correct position. To prevent this from occurring there will be post-operative movement restrictions. You will also be given a sling to wear, and instructions on how to use it, put it on and take off. Please be careful to follow these instructions.
- **Stiffness** – This happens to nearly all TSRs early on and is treated through the physiotherapy exercise programme.
- **Fracture (a break) of surrounding bone** – If this happens we may fix the fracture straight away, manage it non-operatively in a brace or alternatively with another operation at a later date.

- **Loosening of Prosthesis** – Over a period of time the TSR may become loose and further surgery may be required to correct this. It may be due to infection, but more often it is simply due to using our shoulders in the course of normal daily life.
- **Deep Vein Thrombosis (DVT)** – A DVT is a blood clot in the deep veins of the calf or thigh. To reduce the risk of developing a DVT and to help with your circulation you will be given stockings and will be fitted with special inflatable pads to wear around your legs whilst in bed. These inflate automatically and provide pressure at regular intervals, thereby increasing blood circulation in your legs. You may require blood thinning medication which will be decided by your surgeon depending on your individual risk factors. The physiotherapist and nursing staff will show you how to exercise your legs and ensure that you start to move about quickly after your operation. If a clot develops and part of it breaks away, it can travel to the lungs where it is called a Pulmonary Embolus (PE). A PE is potentially life threatening and so everything is done to prevent a DVT from developing. We ask you to help avoid this complication by wearing your stockings at all times while you are in hospital except when you are bathing.
- **Sickness/nausea, heart problems, breathing problems and nervous system problems** – relating to the anaesthetic.

What happens after the operation?

You will be transferred to the recovery room where you will be closely monitored as the effects of the general anaesthetic wears off. Your arm will be supported in a sling. Initially you may feel some pain or discomfort, which will be helped by medication. If you have had a nerve block, your arm and hand can feel numb and heavy, this will usually resolve itself within 24 hours. The shoulder may initially be bruised, tender and swollen and have a dressing over the wound. This will be a water-resistant dressing. However, please check with your nurses before showering.

You may also have the following:

- Small drainage tubes coming from your wound
- Patient Controlled Analgesia (PCA) Device
- Oxygen mask
- A drip to replace lost fluids

These will be removed as soon as possible following the surgery.

Once the anaesthetic has worn off you will be encouraged to mobilise, with help if needed, as soon as you are able. This will prevent the risk of some post operative complications.

Exercises/Therapy

You will be seen by a physiotherapist after your surgery to discuss your post -operative restrictions and show you your exercises. Your physiotherapist will also refer you for outpatient physiotherapy; you can usually choose where this takes place. You will be provided with specific exercises, in addition to those detailed below. DO NOT commence these exercises until guided by a therapist.

Neck, Shoulder Blade, Forearm, Wrist and Hand

These parts of the body will not be directly affected by the surgery and therefore you can move them normally. Complete the following movements as comfort allows:

- Neck movements in all directions
- Shoulder shrugs
- Forearm rotations (palm up, palm down),keeping your arm in the sling
- Freely move wrist and fingers

Following a rTSR the surrounding muscles and tissues need time to heal, and it is important that you avoid certain movements to reduce the risk of complications. These are guidelines only and may vary person to person.

0-6 weeks

Your consultant will clearly state in the operation record your restrictions and for a minimum of 6 weeks these are likely to include:

- Wear sling at all times
- No active use of operated arm
- Only move arm as guided by the therapists
- No hand behind back
- No weight bearing e.g. pushing up from a chair, carrying anything or holding a stick
- No hand across chest
- Do not allow arm to fall backwards past the midline of your body, please support upper arm with pillow when lying down

NB - Your consultant may perform a Biceps Tenodesis as part of your procedure. This involves detaching and re-attaching a tendon of the biceps. To allow this to heal you will not be allowed to actively bend and straighten your elbow. The therapist will advise you further.

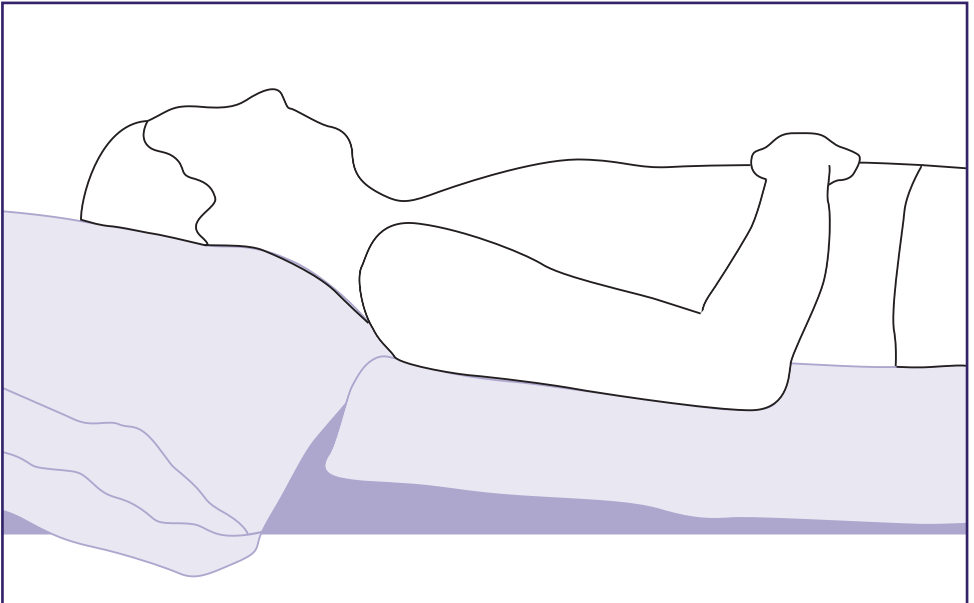
6-16 weeks

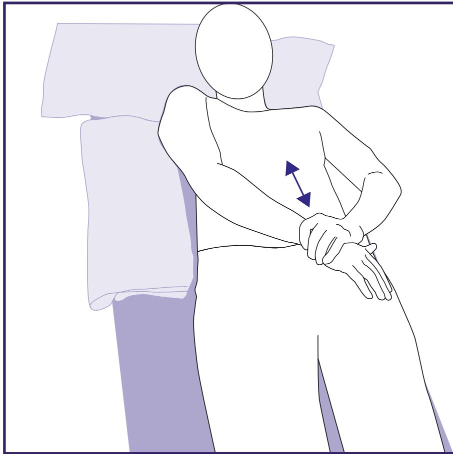
There may be specific exercises for your shoulder replacement that will need to commence at this time. You physiotherapist will confirm these with you at the appropriate stage in your rehabilitation.

Do not attempt to carry out these exercises until instructed to do so. You may need assistance and if you have any concerns about how to complete them please discuss with your therapist first. These exercises may cause some discomfort and should not be painful.

Starting position for the following exercises

Lie on your back with a towel/pillow under your operated arm. (Please note that these can also be done in sitting).



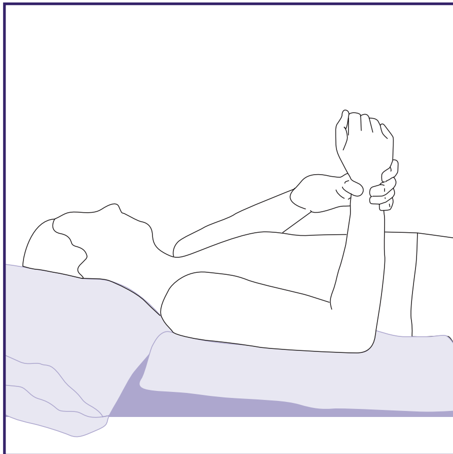


Yes ☐ No ☐

Bend and straighten the elbow of your operated arm, assisting the movement with your other hand.

A Biceps Tenodesis is where the biceps muscle has been cut and reattached. To protect the repair:

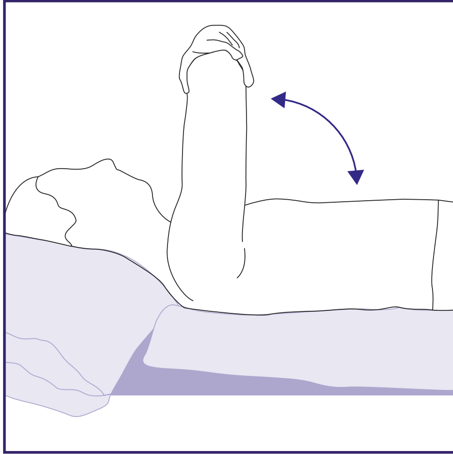
- **DO NOT** fully straighten the arm
- **DO NOT** actively bend your elbow



Yes ☐ No ☐

Assist your operated arm to rotate outwards to neutral, in line with your body.

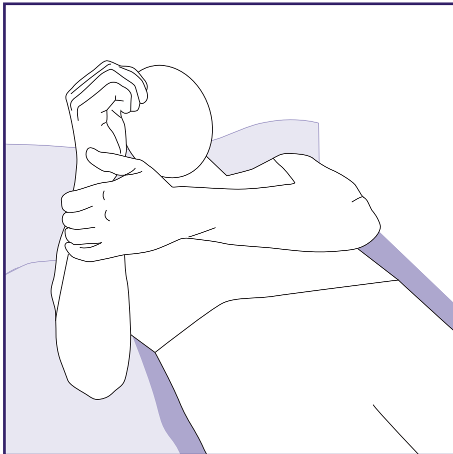
Do not go beyond this unless directed to do so by your therapist.



Yes ☐ No ☐

Assist your operated arm into the position shown as comfort allows.

Do not go beyond ☐ degrees.

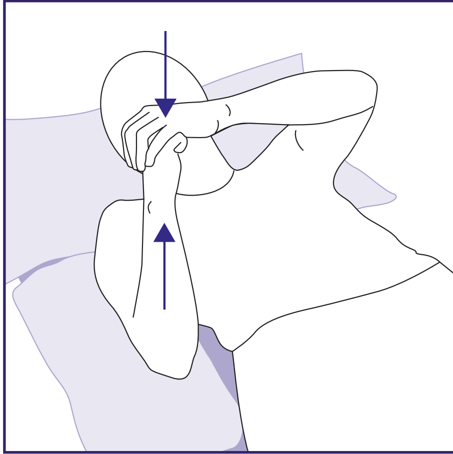


Yes ☐ No ☐

This is a static exercise and the shoulder should not move. You will be providing gentle resistance from your non-operated arm.

Gently push your operated arm outwards against your other hand.

Gently push your operated arm inwards against your other hand.



Yes ☐ No ☐

This is a static exercise and the shoulder should not move. You will be providing gentle resistance from your non-operated arm.

Gently push your operated arm forwards against your other hand.

Activities of Daily living

You will be assessed by an occupational therapist after your surgery to discuss how you will manage your daily activities whilst wearing the sling. You will be one handed for a period of time and the following advice gives some tips on how to manage. Any equipment suggested can be purchased through the companies detailed at the end of this booklet.

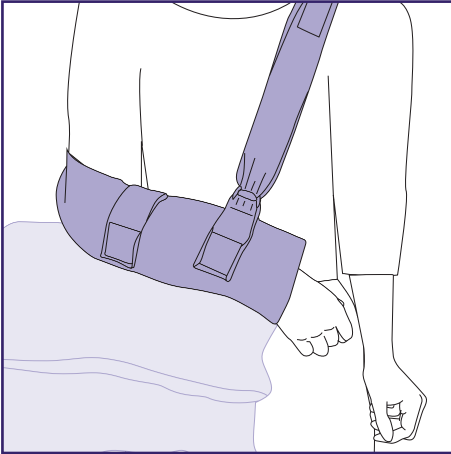
Washing and Dressing

Your occupational therapist will discuss your personal care activities with you. Depending on your restrictions you may be provided with a sling for showering. Showering is advised as opposed to taking a bath to protect the wound and to avoid weight bearing on your operated arm. Your wound dressing is water resistant however you should avoid direct exposure to water when showering. Please be advised that your balance may be affected while wearing a sling and therefore consider safety aspects when stepping in/out of the bath/shower or on uneven ground..

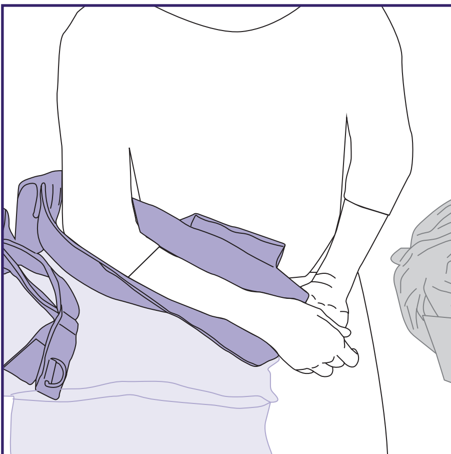
You will require loose clothes that preferably button down the front. Avoid clothing with small buttons, hooks and zips. Ladies may find a bra uncomfortable and may prefer to wear a strapless or front-fastening bra. Consider slip-on, easy fitting shoes.

You will **usually** be allowed to wear your sling over clothes but will need to check this with the team. Always dress your operated arm first and undress it last.

Dressing Procedure in a Sling

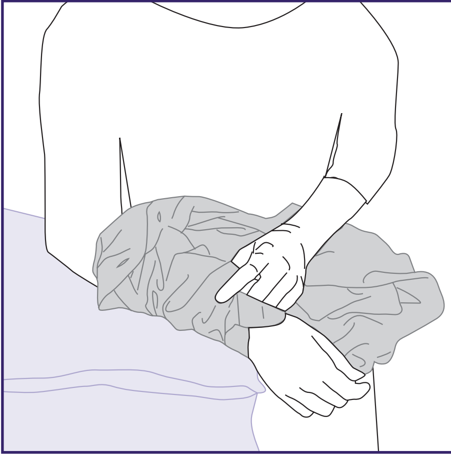


Sit on the bed and place a pillow(s) under your arm so it is rested in the sling position.

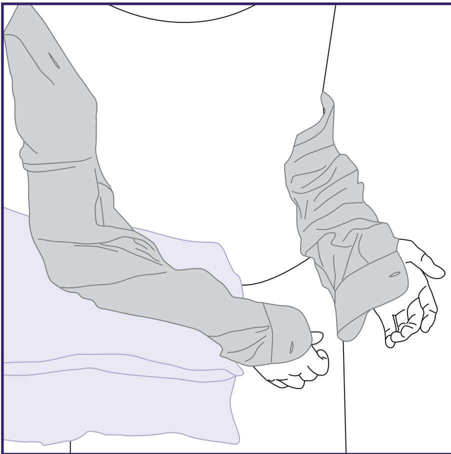


Undo the Velcro fastenings at the elbow and wrist. This will release the shoulder strap. You do not need to undo the Velcro on the shoulder strap.

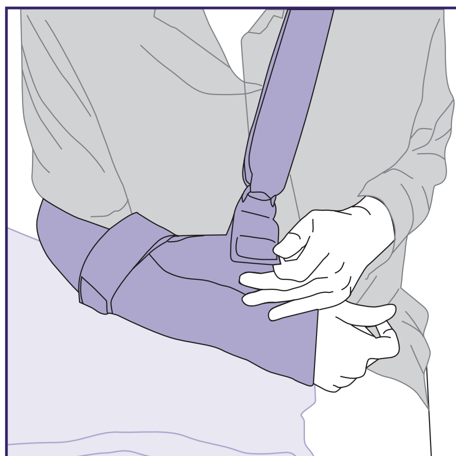
Gently slide out the sling from underneath your forearm by pushing down into the pillows. Keep the operated shoulder as still as possible.



Thread the sleeve onto your operated arm and take the garment as far up to the shoulder as possible. Keep the operated shoulder as still as possible.

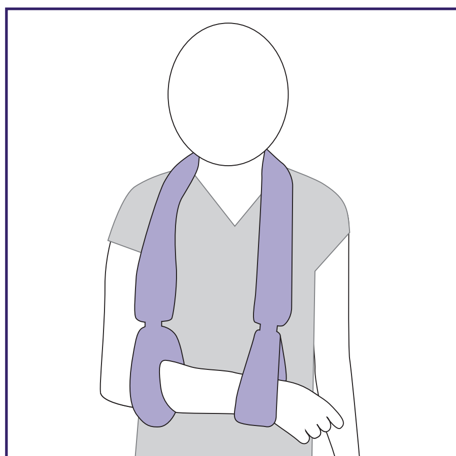


You will then be able to put your non operated arm into the sleeve, bringing the garment up and around your shoulders to do the clothing up.



Replace the sling by gently sliding it under your forearm. Replace the Velcro fastenings. You may need to lean forward to do up the fastenings.

For undressing complete this procedure in reverse.



If you have been provided with a Collar ‘n’ Cuff for showering use the above procedure for guidance on how to put on and take off.

Sleeping

Avoid lying on your operated arm initially. Lying on your back may be the most comfortable position. A pillow placed behind the operated arm may be advised to prevent the arm from falling backwards. Your therapist will advise you.

Domestic Tasks

Use ready prepared meals or items that need little preparation e.g. pre-chopped vegetables. There is equipment available which can help with food preparation, for example easy grip jar openers, pizza cutters. Some of these are available in large supermarkets or from the suppliers which are listed at the back of this booklet. Your occupational therapist will advise you if required.

You should avoid heavy household duties that may put undue stress on your shoulder until approximately 12 weeks post op or when advised by your physiotherapist.

Returning to work

You will probably be off work for approximately 6 weeks depending on the type of job you have. If you are involved in lifting, overhead activities or manual work, this could be considerably longer. Please discuss any queries with the team.

Driving

You should not attempt to drive until you are out of your sling, your pain has subsided and you feel confident in your own ability to control the vehicle in the event of an emergency situation.

You should avoid driving for about 10 weeks, however please confirm this with your consultant. If your ability to drive has been affected you are required by law to contact the DVLA and you may need to inform your insurance company of your operation as your insurance may be invalid.

Returning to leisure activities

Prior to restarting any leisure activities it is advised you discuss them at your post-operative clinic review or with your outpatient therapist. The ability to return to leisure activities will depend on pain, range of movement, strength and the procedure undertaken. Non-contact activities such as gentle jogging, light gym work, light gardening tasks, gentle swimming may usually be resumed from 3 months.

Going home

We aim to discharge you from hospital within 3 days of the surgery however this may vary depending on your needs. The ward nurses may change your dressings if they become wet and give you water resistant dressings to take home with you. Prior to discharge we need to ensure:

- You can mobilise safely
- You have adequate social support,
- You understand your exercises and precautions
- Your pain is managed with effective pain relief
- Your wound is clean and dry
- Your post-operative x-ray is satisfactory

Aftercare

On discharge a district/practice nurse letter will be provided for them to check your wound. Excessive redness or inflammation of the wound must be reported to your GP or to our patient support line, **020 8385 3024.**

Usually a follow up clinic appointment will be arranged for you to attend at 6 weeks following surgery. If you do not receive a follow up appointment letter within 3 weeks of discharge please contact your consultant's secretary using the numbers in this booklet.

Please note that this is an advisory leaflet only. Your experiences may differ from those described.

Useful contacts

In the event that you are unable to contact a member of the upper limb team and feel that you have an urgent problem, you should visit your GP or local emergency department for advice.

Physiotherapy/Occupational Therapy Service
Tel: **020 8909 5820**
Website: **www.rnoh.nhs.uk**

Shoulder and Elbow Unit Secretaries
Contact via the switchboard: **020 3947 0100**

Mr Falworth – **020 8385 3025**
Miss Higgs – **020 8909 5457**
Mr Majed – **020 8909 5565**
Mr Rudge – **020 8909 5671**
Mr Butt – **020 8909 5671**
Clinical Nurse Specialist – **020 8909 5727**

Alternative direct numbers to secretaries:
020 8909 5107 or **020 3947 0052**

Clinical Nurse Specialist, Shoulder and Elbow Unit - Amanda Denton
Patient Support Line (answer phone response service, non-emergency)
Tel: 020 8385 3024
Tuesday to Friday 08:00-17:00

Please leave your full name, hospital number/date of birth, a telephone number and the reason for your call. The CNS aims to return all calls within 2 working days.

Should you require urgent medical attention we advise that you contact your GP or attend your local accident and emergency department first.

Equipment

Disabled Living Foundation
www.dlf.org.uk

Patterson Medical
www.pattersonmedical.co.uk

Nottingham Rehab Supplies
www.nrs-uk.co.uk

If you would like this leaflet translated into another language/large print, please contact the Quality Team on 020 8909 5439.

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20-13 © RNOH

Date of publication: January 2021
Date of next review: January 2023
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