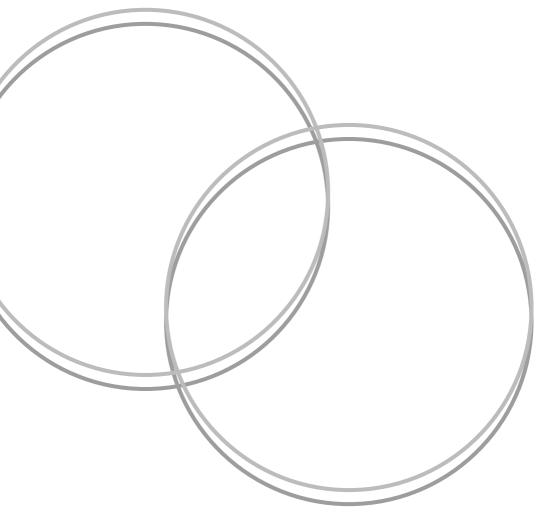


### **Rotator cuff repair**

Information for patients



Surgery and rehabilitation

This booklet contains information to help you gain the maximum benefit from your shoulder repair operation. It is not a substitute for professional medical care and should be used in association with information from your surgeon and physiotherapist.

Your recovery may vary to others and needs specific instruction, so you must be guided by your surgical team at all times.

This information should help you prepare for the surgery. It also includes advice and exercises to help with your recovery, as well as guidance on what to expect during this time.

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#### What is the 'rotator cuff'?

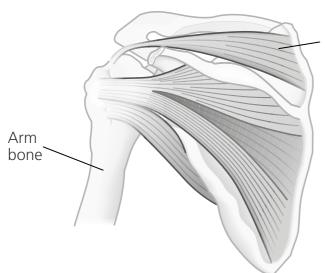
The rotator cuff is a group of muscles closely wrapped around the shoulder. These muscles help keep the shoulder joint in the correct position and also control shoulder movements. They attach from the shoulder blade onto the top of the arm bone.

Many people have tears or fraying of these muscles without pain. It is part of the normal aging process. These changes usually occur close to where the muscle joins the bone called the 'tendon'.

Physiotherapy can often help to get the muscle working better, usually through strengthening, and often the symptoms improve. However, surgery is sometimes offered if the physiotherapy hasn't helped or if the tendon has been damaged through injury, such as a fall onto the shoulder.

#### Left shoulder, viewed from the back

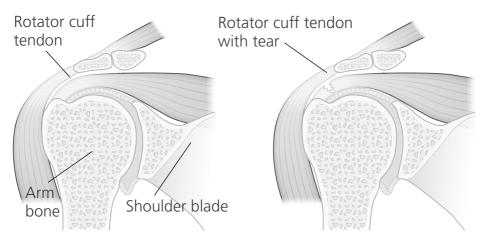
Please note; in your body, there are more muscles on top of these muscles and bones!



Three of the four rotator cuff muscles attach from the back of the shoulder blade to the arm bone.

Usually it is the top muscle, supraspinatus that is damaged.

#### A section through the shoulder from the back



#### **About your rotator cuff operation**

The aim of the operation is to re-attach the torn or frayed tendon or tendons onto the bone. Sometimes the tear is too big or the tendon is too fragile for this to be possible, so only a partial repair can be achieved.

As the strength and size of the repair can vary, we can only give you rough guidelines about the operation in this booklet. The surgeon and therapists will be able to discuss the details of your individual surgery with you, both before and after the operation.

This surgery is usually carried out under a general anaesthetic, which means you would be asleep throughout the operation. You will also be given a 'nerve block'. This involves injecting local anaesthetic under the skin on the side of your neck using ultrasound images for guidance. This is normally done whilst you are sedated or half asleep, just before you are put to sleep for the operation.

The anaesthetic blocks the signals from nerves that sense pain in your shoulder, and is used for additional pain relief during and after the surgery.

For further information about anaesthetic and pain relief, please ask to see our leaflet 'Anaesthesia explained' or visit our online patient information leaflet library at <a href="https://www.ouh.nhs.uk/patient-guide/leaflets">www.ouh.nhs.uk/patient-guide/leaflets</a>

# What are the risks and complications of the operation?

All operations involve risks. The risks you should be aware of before and after this operation include:

#### **Infection**

This is usually only superficial wound infection that occurs in the topmost layer of the skin. Occasionally a deep infection may occur after the operation. Although this can be serious it is rare, affecting fewer than 1 in 100 people.

#### Stiffness and/or pain in or around the shoulder

1-5 in every 100 people will have some stiffness or pain after this operation or may develop a **frozen or stiff shoulder**.

### Damage to the nerves and blood vessels around the shoulder

This is rare, affecting fewer than 1 in 100 people.

#### **Deep vein thrombosis (DVT) or pulmonary embolism (PE)**

This is also rare after upper limb shoulder surgery, affecting fewer than 1 in 100 people.

#### **Risks from the anaesthetic**

The chance of any complications from the general anaesthetic or block is low for most people. Your anaesthetist will discuss your specific risks with you.

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

#### Information about the nerve block

As with most anaesthetic procedures, there are a few common side effects of a nerve block to be aware of. These side effects are usually temporary and not a cause for concern. They will get better when the local anaesthetic wears off in 12 to 48 hours.

Your arm will be very numb. You may not be able to move it and your fingers may feel tingly, like you have 'pins and needles'. You must take care of your arm whilst it is numb, as you could injure it without being able to feel it. You should keep your arm in the sling until the block has fully worn off. When you are able to feel your arm normally you can remove the sling for short periods to complete your exercises and wash under your arm pit. Keep your arm away from extreme heat or cold.

The local anaesthetic can also spread to nearby nerves. This may cause other areas to be numb, such as your cheek, neck and ear. For similar reasons this may cause you to have a blocked nose and a droopy eyelid on the side of the operation. Your eye and cheek may be a little red, and you may have a hoarse voice or feel slightly breathless.

If any of these side effects last more than 48 hours, you should get advice from the hospital ward you were discharged from.

## Are there any risks from a nerve block?

There is an extremely small risk that some of the side effects mentioned may become long-lasting, but by giving you the block before your anaesthetic, with careful monitoring, we can reduce these risks even further.

There are some more significant complications, such as long-lasting or permanent nerve damage in the arm or shoulder, or a delay in waking immediately after surgery, due to spread of local anaesthetic towards the spinal cord.

Thankfully these complications are very rare, occurring in less than 1 in 5,000 procedures. We would only recommend that you have the block if the benefit of the reduction in your pain immediately after the operation outweighed these risks.

#### Will it be painful?

When you wake up after your operation the nerve block will make your arm feel numb and weak for 12 to 48 hours. It is likely to significantly reduce or completely remove your pain, helping you get past the worst of the pain from the operation. The blocks are normally very effective and last into the next day. Your arm will then start to return to feeling normal.

It is best to take pain relief regularly, starting them after your operation. Continue taking them regularly, even if you are comfortable, as the pain can sometimes return suddenly. Remember that pain relief tablets can take up to an hour to work

On page 10 you will find information about the painkillers you should take, including how and when to take them.

#### Pain relief after the surgery

As with most operations, it is normal to have some pain after shoulder surgery.

You should be given 2 or 3 different types of pain relief to take home. These different medications work in combination to treat pain effectively, so it is best to take them if you have been advised to.

Take the pain relief regularly for the first 2 to 3 days, after this gradually reduce to taking only when needed as your pain improves.

You will be given a prescription for more pain relief when you are discharged from hospital. Further supplies of paracetamol or ibuprofen can be purchased in a supermarket. Please see your GP if further supplies of stronger pain relief are needed.

Bruising around the shoulder and upper arm and swelling of the arm is common after this surgery, but will gradually disappear over a few weeks. You may find it helpful to use an ice pack or a packet of frozen peas over the area. Place a damp tea towel between your skin and the, ice pack, to protect your skin. Leave on for 10 to 15 minutes and repeat several times a day. Until your wound has healed, cover the dressing with a large plastic bag or cling film, to prevent it getting wet.

#### What pain relief will I be given?

This depends both on the extent of the repair during your operation and any side effects you may be more likely to develop. The medical staff will give you advice about the appropriate pain relief for you following surgery.

#### **Paracetamol**

This is an effective pain relief, particularly when taken regularly. It has a reputation for being weak, but you should not forget to take it, as it helps reduce the amount of other pain relief you need. It has very few side effects and is usually the last one you will stop taking.

#### **Codeine (codeine phosphate)**

Take this pain relief at the same time as paracetamol for maximal effect. It can cause sleepiness, mild nausea and constipation. You may wish to increase the amount of fruit and fibre in your diet or take a laxative whilst you are taking codeine. Please ask for advice about this.

#### Naproxen/ibuprofen

These medications are very effective pain relief. They should be taken after food to prevent symptoms such as indigestion or stomach irritation. You should not take them if you have had a stomach ulcer in the past. If you have severe asthma you may have been advised to avoid taking this medication, as they can affect your breathing. If you don't have asthma they rarely cause breathing problems.

#### Morphine (Sevredol) or oxycodone

These opiate tablets are the strongest you may be provided with and work best for 'breakthrough' pain. i.e. to be taken only if the combination of the other regular pain relief has not worked. They can make you drowsy, nauseated or constipated. If you find these side effects troublesome you may want to stop taking these tablets, or reduce the dose. These should be the first to be 'stepped down' or stopped after your operation after the first 2 to 3 days.

#### Please remember:

- Take your pain relief regularly for the first few days after your operation, as pain can sometimes return unexpectedly.
- Your nerve block is likely to make your arm numb and difficult to move for the night after surgery. Although this can be a strange experience it is normal and should get better 12 to 48 hours after surgery.

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

Your arm will be held in position in a sling. This is to protect the repair during the early phases of healing and to make your arm more comfortable. There is a body belt part to the sling and you need to keep using this for the duration of wearing the sling.

A nurse or physiotherapist will show you how to put the sling on and how to take it off

You will need to wear the sling for a minimum of 3 weeks but usually 4. If you have had a major repair you will wear the sling for up to 6 weeks. You will then gradually use the sling less as the repair heals and the muscles regain their strength.









You will also need to wear the sling and body belt at night.

If you are lying on your back to sleep, you may find placing a small towel or pillow under your elbow and upper arm is comfortable.

You may find your armpit becomes itchy, hot and sweaty whilst you are wearing the sling for long periods of time. Try using a pad or cloth to absorb the moisture.

Dressing, showering, taking a bath and cooking may be difficult to start with. If you live alone it will be useful to have someone to help you for the first few days.

#### Do I need to do exercises?

Yes! Exercises for your shoulder will not start until 3 to 6 weeks after your surgery, but you may be given elbow, wrist and forearm exercises, to stop them stiffening up. To begin with, you will be moving your shoulder joint only for specific exercises, which the physiotherapist will show you.

You will need to continue with these exercises at home for between **3 to 6 weeks**, depending on what level of repair was carried out during your operation. You will also have outpatient physiotherapy appointments organised to start after you leave hospital. Some of the early exercises are shown from page 22.

You will need to do these regular daily exercises at home for several months. They will help you to gain maximum benefit from your operation.

# How do I look after the wound and stitches or clips?

Keep the wound dry until it is healed, this is normally after 10 to 14 days. You can shower or use a flannel to wash, but avoid lifting your arm too far out to the side or getting the dressing wet, as it may come off too soon and delay healing or increase the chance of infection. Avoid using spray deodorant, talcum powder, lotions or perfumes near or on any wounds until they are well healed, as this can delay healing and irritate the wounds.

Your stitches or clips should be ready to be removed after 10 days. You will need to make an appointment to have this done by the nurse at your GP's surgery.

#### Follow-up appointment

You are likely to have an outpatient Shoulder Clinic appointment approximately 4 weeks after you are discharged from hospital, to check on your progress. Please discuss any queries or worries you may have with the specialist or senior physiotherapist at this appointment. If you need any further appointments, we will make them after you've been seen.

#### Are there things I should avoid doing?

For at least 3 weeks and possibly 6 weeks, depending on the level of repair carried out:

Do not try to use your arm for everyday activities, especially those that involve moving your elbow away from your body. Keep it in the sling, except when you are doing your exercises.

Continue to avoid using this arm until you are told otherwise by the consultant, hospital doctor or physiotherapist.

Do not let your elbow move or stretch across the front of your body. This can happen at night when you are lying on your other side. When you stop using the sling, place your arm on pillows in front of you when lying on your unoperated side.



#### For 6 weeks

Do not lie on the side on which you had your operation. After this time, be guided by pain.

Avoid lifting any weight with your arm for 8 to 12 weeks for example a kettle. This is to avoid stressing the repaired muscle. Heavier lifting for example digging in the garden or manual work should be avoided for 4 to 6 months.

There may be other movements that are restricted for you. You will be told if this is the case by the surgeon or physiotherapist.

Within these general instructions always be guided by your levels of pain. It is normal to feel discomfort, aching and stretching sensations when you start to use your arm. Intense and lasting pain, that lasts for 30 minutes or more is a sign to reduce that particular activity or exercise. You should also avoid sudden, forceful movements involving weight.

#### How am I likely to progress?

#### Your progression can be divided into three phases:

#### PHASE 1

#### Sling on, no movement except for exercises

You will basically be one-handed immediately after the operation and for the first 3 or 6 weeks depending on the level of repair carried out. This will affect your ability to do everyday activities, especially if your dominant hand, the hand you use to write with, is the side which has had the operation.

Activities that are likely to be affected include dressing, bathing, hair care, shopping, eating and preparing meals. Some common difficulties and examples of solutions are listed later in this booklet, see page 19 to 20. If you are having other problems, the occupational therapist will be able to suggest ways to help.

Before you are discharged from hospital, the staff will help you plan for how you will manage when you leave. Please discuss any worries you may have with them, as they may be able to organise or suggest ways of getting help once you are discharged from hospital.

#### PHASE 2

#### Regaining everyday movements

This starts once you are given the go-ahead by the hospital doctors or physiotherapist, between 3 to 6 weeks after your operation.

You will have physiotherapy, this may be in another centre, other than the hospital and start exercises to gain muscle control and movement

Your arm can now be used for daily activities; initially these will be at waist level but gradually you will be able to return to light tasks with your arm away from your body.

#### PHASE 3

#### Regaining strength

After 12 weeks you will be able to increase your activities, using your arm away from your body and for heavier tasks. The exercises will now have an emphasis on regaining strength and getting maximum movement from your shoulder. There will still be some restrictions on lifting.

You are likely to see the most progress in the first 6 months. At times it may feel like a lot of hard work for little in return. Set small, achievable goals and try and keep a positive attitude. You may continue to see improvement in the use of your arm and shoulder for 1 to 2 years after the operation.

#### When can I return to work?

You may be off work for 4 to 12 weeks, depending on the type of job you have. If your job involves lifting, overhead activities or manual work, you should not do these tasks for 4 to 6 months. Please discuss any questions with your physiotherapist or surgeon.

#### When can I drive?

This is likely to be 2 to 3 weeks after you have stopped wearing the sling, this is usually between 6 to 12 weeks after your operation.

Check you can manage all the controls and that you can safely carry out an emergency stop, before setting off. Start with short journeys. The seat belt may be uncomfortable to start with, but it will not damage your shoulder.

You should also check your insurance policy, to make sure you are covered. You may need to tell your insurance company about your operation.

### When can I take part in leisure activities?

Your ability to start these activities will be dependent on the pain, range of movement and strength you have in your shoulder after the operation. Please discuss activities you may be interested in with your physiotherapist or surgeon.

Start with short sessions, involving little effort, and gradually increase the intensity of your activities.

#### General examples:

- gentle swimming, after 8 to 12 weeks
- gardening, for example, light tasks such as weeding after 12 weeks.
- bowls, golf, after 16 weeks
- tennis, squash, badminton, after 4 to 6 months.

## Guide to daily activities in the first 6 to 12 weeks

Some difficulties are quite common, particularly in the early stages when you are wearing the sling and when you first start to take the sling off. If necessary, an occupational therapist can help you with finding ways for you to still be as independent as possible. Specialist equipment can be borrowed from the Occupational Therapy department.

Everyone is different, so your individual needs will be assessed. We appreciate that you may have had many of these problems before your surgery. Please discuss any difficulties you may be having with the occupational therapist.

The following list shows some common difficulties, with solutions that may help.

#### Getting on and off seats

Raising the height can help for example an extra cushion, raised toilet seat, chair or bed blocks.

#### Getting in and out of the bath

Using bath boards can help, though initially you may prefer to continue washing at the sink with a flannel or sponge.

#### Hair care and washing

Long-handled combs, brushes and sponges can help to stop you twisting your arm out to the side.

#### Dressing

Wear loose clothing, which is either front fastening or that you can slip over your head. For ease, also remember to dress your operated arm first and undress it last. Dressing sticks, longhandled shoe horns, elastic shoe laces, sock aids and a 'helping hand' grabber may help.

#### Eating

A non-slip mat and other simple aids can help when one-handed. Use your operated arm once you have weaned out of the sling at 3 to 6 weeks, as you feel able.

#### Household tasks/cooking

Do not use your operated arm for activities involving weight, for example lifting a kettle, iron or saucepan for 8 to 12 weeks. Light tasks can be started once your arm is out of the sling. To begin with, you may find it more comfortable keeping your elbow into your side.

#### **Exercises and general advice**

Use painkillers and ice packs to reduce pain before you exercise.

It is normal to feel aching, discomfort or stretching sensations when doing these exercises.

Do short, frequent sessions, for example 5 to 10 minutes, 4 times a day rather than one long session.

If you experience intense and lasting pain that lasts for 30 minutes or more, reduce the exercises by doing them less forcefully, or less often. If this does not help, discuss the problem with your physiotherapist.

Certain exercises may be changed or added for your specific shoulder recovery.

Gradually increase the number of repetitions that you do. Aim for the repetitions your physiotherapist advises; the numbers stated in this leaflet are rough guidelines.

#### **Phase 1 exercises**

#### From the day of surgery to 3 weeks.

Do **all** the exercises in this section unless the physiotherapist specifically advises you not to.





**Neck exercise** 

Sitting or standing.

- Turn your head to one side as far as you can comfortably go. Repeat 5 times.
- Turn you head to the other side. Repeat 5 times.
- Tilt your head towards one shoulder. Repeat 5 times.
- Tilt your head to the other shoulder. Repeat 5 times.

#### **Shoulder blade exercise**

Sitting or standing.

- Shrug your shoulders up and forwards. Then roll them down and back.
- Repeat 5 times.



# **Elbow exercise** Standing or lying down.

- Straighten your elbow, so that your palm is facing forwards. Then bend your elbow, so your palm is facing backwards.
- Repeat 5 times.





### **Shoulder exercises**These are important to do.

#### Active assisted arm lifts

Lying on your back on the bed or the floor.

- Clasp your hands together infront of your lower body.
- Lift your operated arm with your other arm. Keep your operated arm as relaxed as possible.
- Do not lift further than the vertical position.
- When you first do this exercise you can start with you may find it easier to start with your elbow bent.
- Repeat 5 times.





#### **Outward hand rotations**



Lying on your back on the bed or the floor, with a folded towel under the upper part of your operated arm.

Do not complete this exercise if you have had your subscapularis muscle repaired. Your physiotherapist will advise you if this is the case.

- Keep your elbow relaxed, but near to your side and bent.
- Hold a stick in your hands.
- Move the stick sideways, gently pushing the hand on your operated arm outwards.
- Repeat 5 times.

#### Phase 2 exercises

Only start these when advised to do so. This may not be for 6 weeks.

### Active assisted arm lifts and sways

Lying on your back, elbows bent.

- Help your operated arm up, but once your arm is vertical try to keep it there without the support of your other arm.
- Gradually lower and raise your arm in an arc, until you can lift it from the bed without assistance.
- Repeat 5 to 10 times.

After 2 weeks you may be able to progress this exercise by doing the same action standing up. Build it up gradually and try to get your shoulder joint to move above your head, as far as is comfortable.





#### Resisted inward hand press Lying on your back, elbows bent and close to your side.

- Hold the wrist of your affected arm with your good hand.
- Try to move your hand on your operated arm inwards, whilst using your other hand to stop it from moving.
- Hold for 5 seconds.
- Repeat 5 times and gradually increase with guidance from your physiotherapist.



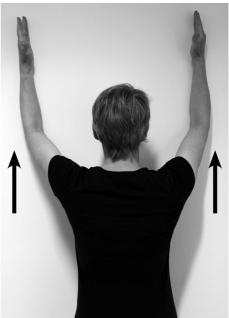
#### In the same position.

- Try to move your hand on your operated arm outwards, whilst using your other hand to stop it from moving.
- Hold for 5 seconds.
- Repeat 5 times and gradually increase with guidance from your physiotherapist.

Both of these exercises can be progressed to be completed in standing or sitting positions.







# Wall slides Stand or sit facing a wall Only start this exercise when you can lift your operated arm above shoulder height without any pain.

- Bend your elbow and rest the side of your hand against the wall.
- You can use a paper towel between your hand and the wall to make it easier.
- Slide your hand up the wall.
- To start with you can give your operated arm support at the elbow with your other hand.

- Gradually stretch higher up the wall.
- Try to make the movement smooth.
- Repeat 5 times and gradually increase to 20.
- Progress by moving further away from the wall.





#### Hand behind back slide ups Stand with your arms by your side.

- Put your hands behind your back.
- Grasp the wrist of your operated arm with your other hand.
- Gently slide your hands up and down your back.
- Repeat 5 times.
- Do not force the movement.

#### **Pulley**

Set up a pulley system with the pulley or ring high above and behind you.

- Sit or stand under the pulley system.
- Holding the ends, pull down with your unoperated arm, to help lift your operated arm up wards
- Slowly lower it back down.
- Repeat 10 times.

Note: You can buy door pulleys on the internet or in the League of Friends shop at the Nuffield Orthopaedic Centre.



These exercises are a few examples. You may also be given others instead of or in addition to these

#### **Phase 3 exercises**

These will concentrate on increasing the strength and mobility around your shoulder. The exercises will be specifically selected by your physiotherapist for your individual shoulder recovery and your lifestyle. Work hard at them, as improvements in strength can increase for up to 2 years!

#### How to contact us

If you are unsure who to contact or if you have an appointment query, please telephone your Consultant's secretary between 8.30am and 5.00pm, Monday to Friday. They will contact the correct person, depending on the nature of your enquiry.

If your wound changes in appearance, weeps fluid or pus, or you feel unwell with a high temperature, contact your GP or out of hours' service NHS 111.

If you have a query about exercises or movements, please contact the Physiotherapy department where you are having treatment.

#### **Physiotherapy Reception**

Nuffield Orthopaedic Centre Windmill Road, Headington Oxford OX3 7LD

Telephone: 01865 738 074

9.00am to 4.30pm, Monday to Friday

#### **Physiotherapy Reception**

Horton General Hospital and Brackley Department Oxford Road Banbury OX16 9AL

Telephone: 01295 229 432

8.00am to 4.00pm, Monday to Friday

#### **Physiotherapy Reception**

John Radcliffe Trauma Service John Radcliffe Hospital Headley Way Oxford OX3 9DU

Telephone: 01865 221 540

9.00am to 4.30pm, Monday to Friday

#### **Website links**

www.ouh.nhs.uk/physiotherapy/information/physiotherapy-leaflets.aspx www.ouh.nhs.uk/shoulderandelbow/information/patientinformation.aspx

#### **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: Outpatient Physiotherapy Team, Nuffield Orthopaedic Team

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Oxford University Hospitals NHS Foundation Trust

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