A guide to...

Rotator Cuff Repair

Patient information

How to contact us
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If you need this leaflet in another language, large print, Braille or audio version, please call 01923 217 187 or email pals@whht.nhs.uk
Your orthopaedic surgeon has placed you on the waiting list for a **Rotator Cuff Repair (RCR)**. Generally this will involve 1-2 days in hospital depending on the extent of surgery, your age and home situation.

**About the shoulder**

The shoulder is a ball and socket joint with a ligament above it forming an arch. The muscles that stabilise the shoulder are called the **Rotator Cuff**. They sit on the back and the front of the shoulder blade and attach via a tendon to the top of the arm bone.

Apart from helping to keep the shoulder within the socket they are also involved in rotational movements such as putting your hand behind your back and head and overhead activities.

The Rotator Cuff muscles can be damaged through general wear and tear or after an accident or fall.

The damage normally occurs in the form of a tear, near to where the muscle attaches into the arm bone (known as the tendon). This can result in shoulder movements becoming weak and painful.

**About the surgery**

Rotator Cuff Repairs can be performed in one of 2 ways:

1. **Arthroscopically** – keyhole surgery
2. **Open** - A Larger incision will be made to allow better visibility and access to the tear.

The aim of the operation is to help with pain relief and restore as much function as possible. This is done by repairing/reattaching the torn tendon generally with the use of stitches. A bone shaving device is also used to smooth the underside of the tip of the shoulder to allow more room for the repaired tendon.

Sometimes the tear is too big or the tendon too fragile to repair so only a partial repair is possible. If this is the case your surgeon will discuss this with you after the operation.

**Pain relief following the operation**

You may be given an injection which numbs your arm. This is called a nerve block and is explained in the section below.
What is the brachial plexus?

The nerves that supply your shoulder and arm come from the spinal cord in your neck. They form a bundle in your neck and then run under the collar bone (clavicle) through your armpit to supply your arm. This bundle is the brachial plexus. The part of the brachial plexus that supplies the shoulder sits in a groove in your neck called the interscalene groove.

What is interscalene brachial plexus block?

The interscalene brachial plexus block (ISB) is a regional anaesthetic technique used for surgeries of the shoulder and upper arm. It is a safe and effective block that provides both safe and excellent surgical anaesthetic and postoperative pain relief. During this block, the anaesthetist injects local anaesthetic solution around the major nerves in the interscalene groove supplying the shoulder and upper limb.

Why should I have a block?

Shoulder surgery may cause considerable pain in the first 24 hours after the operation. One of the most effective methods of relieving this pain is to use interscalene brachial plexus block, which numbs the nerves carrying pain sensation from the operation site. The operation can then be done under block alone or in combination with sedation or general anaesthetic. The anaesthetist will see you before your operation and discuss your anaesthetic with you.

How is the block performed?

Once you arrive in the anaesthetic room you will be attached to the usually monitors, a blood pressure cuff, a light sensor to measure your blood oxygen level attached to your finger and ECG leads placed on your chest.

You will receive some sedation through your intravenous cannula prior to placement of the block, which relaxes you and you will likely to have little or no recollection of the block placement. Once the nerves on the side of surgery are located using an ultrasound machine, the anaesthetist will numb the skin with local anaesthetic to make the procedure as comfortable as possible. Next he will slowly insert a special insulated needle under the ultrasound guidance and when the location is optimal the anaesthetist will inject long-acting anaesthetic solution to numb your shoulder and arm.

What are the benefits of ISB?

The benefits of an interscalene nerve block (ISB) are:

- Excellent pain control
- Reduced risk of nausea and vomiting
- Early intake of food and drink
- Lighter general anaesthetic with speedy recovery from the
  - Anaesthetic.
  - Earlier to leave hospital

What are the side effects of this block?

First you have little or no pain. You will not be able to move your shoulder, arm sometimes your hand. Rarely, your voice may be horse and you may see like you are not taking a deep breath as
you did before the surgery. You may notice a temporary drop in the eyelid, slightly dilated pupils or numbness in the face on the same side as the block. These are normal expected side effects from the interscalene block and do not last beyond the duration of the block.

The most frequent (but still uncommon) nerve problems is altered sensation of the arm or hand which may persist for some weeks, but which usually, resolves on its own. Nerve damage occurs in less than 3 out of every 100 nerve blocks (3%). The vast majority of those affected (92-97%) recover within 4-6 weeks. 99% of these people have recovered within a year. Permanent nerve damage is very rare indeed (around 1.5 in every 10,000 nerve blocks).

Puncture lung and seizures are rarely reported complications of this block in your arm or hand, which gradually disappears.

**How long does this block last?**

The numbness from the block usually lasts for 6-18 hours, occasionally up to 36 hours. You will have good pain relief during this period with numbness and heaviness of your arm. When the block starts to wear off you may feel pins and needles in your arm or hand, which gradually disappears.

**Management of the numb arm**

You should carry the numb arm in an arm sling until normal sensation and motor function returns. You should look after the shoulder and arm. It should be protected from heat or pressure injury and extremes of movement. You should take care not to come in contact with extremely hot or cold items because you will not be able to protect your arm from injuries of extremes of temperatures.

**Alternative to block and what happens if the block does not work**

Occasionally (less than 1 in 1000) the block is unsuccessful. You will then be given opioid based strong pain killers. The side effects of opioids are nausea, vomiting and drowsiness.

**Oral pain killers**

In the immediate post-operative period despite good analgesia provided by the block, you are strongly recommended to take your oral pain killers at regular intervals which will be prescribed. This is to avoid any severe pain you may feel once the block wears off.

**References**

- [http://www.massgeneral.org/ortho](http://www.massgeneral.org/ortho)
- [http://www.nysora.com](http://www.nysora.com)
- [http://www.shoulderanaesthesia.com](http://www.shoulderanaesthesia.com)

For further questions please contact the following Consultant Anaesthetists:

- Dr Devaraja Acharya
- Dr Saravanan Rathinam

It is normal for you to feel a moderate amount of pain after your operation. It is important that this is managed effectively through medication and/or other pain controlling methods (nerve blocks,
injections, PCA). Pain levels vary from person to person; if you are experiencing a lot of pain discuss this with your allocated nurse/doctor.

A prescription for continued pain medication will be given to you prior to your discharge from hospital so that your pain is well controlled at home.

**Risks of rotator cuff repair surgery**

The risks of surgery include:
- General anaesthetic,
- Infection Less than 1%
- Nerve damage
- Stiffness
- Haematoma
- Loosening of the anchors

**DVT or PE**

Developing blood clots in the legs (deep vein thrombosis – DVT) or in the lungs (pulmonary embolism – PE) is a risk of any surgery. We minimize this risk by using thrombo-embolic deterrent stockings (TEDS) and mechanical pumps. These pumps squeeze your lower legs, helping the blood to circulate. They are put on when you go to sleep and stay on until you start to get moving. You will be encouraged to get up and moving as soon as possible post operatively as this also helps to prevent DVT and PE.

**Re-tear of the tendon**

The risk of the tendon re-tearing increases with patient age, size of the initial tear and extent of retraction

**Following your operation**

Depending on the nature of your repair your arm will be in a sling or a device called an abduction brace. These are designed to support your shoulder and the repaired tendons. This will allow the tendon to be protected and to heal.

Although individual cases vary most people will need to use the sling for 4-6 weeks after the operation. You must only remove the sling to wash and dress and perform your daily exercise programme. You must also wear your sling at night.
Resting positions

The main form of support is through the sling so making sure it is adequately adjusted is important. You can also support your arm with the use of pillows when sitting/lying. Your therapist will run through this with you.

Post-operative pain – what to expect

As the extent/type of surgery can vary between individuals so can your pain levels. It is normal to experience pain post operatively but it is important that this is managed effectively through medication and/or other pain controlling methods (nerve blocks, injections). If you are experiencing a lot of pain discuss this with your allocated nurse/doctor.

A prescription for continued pain medication will be given to you prior to your discharge from hospital so that your pain is well controlled at home.

The pain should settle down gradually over the following weeks. It is important to note that your body’s natural healing processes take place over a minimum of 3 months, so it is not unusual to be experiencing some pain during this time. Recovery from Rotator Cuff Repair can take 6-12 months post-surgery; however this will depend on the nature/extent of your surgery.

Exercises

You will be shown the exercises by one of the physiotherapy team. It is important that you continue with your exercises when you go home so that you maintain mobility in your shoulder, neck and elbow.

It is normal to experience some degree of discomfort when doing your exercises. Be guided by pain in the first 4-6 weeks. If it is too painful you may be pushing your exercises too far or doing too many repetitions. If this is the case then modify your exercise accordingly until you feel comfortable. An exercise sheet is included in this leaflet; please use it to help you remember them.

You must not actively lift your arm up to the front or the side without support and guidance of the physiotherapist. You may do this by using your other arm to help lift your operated arm.

Leisure activities

Your ability to start these activities will be dependent on pain, range of movement and strength that you have in the shoulder.

It is unlikely that you will be doing anything that requires any amount of effort in the first 4-8 weeks. Your surgeon/therapist will be able to guide you more specifically after your surgery. It is important that you discuss your goals with your surgeon/therapist so that we can guide you on realistic time scales.
Driving

Do not drive whilst your arm is still in a sling. This is for insurance purposes and also to protect your joint replacement. Generally you will be able to drive 2-4 weeks after you stop wearing your sling (approximately 2-3 months post operation). Check that you can manage all the control, that your arm does not tire and you can perform an emergency manoeuvre. It is advisable to start with short journeys. In addition, check your insurance policy. You may need to inform the company of your operation.

Return to work

This will obviously depend on the type of work that you do and the extent of the surgery. Most people return within 2 months of the operation, but if your job involves heavy lifting or repetitive overhead movements, you will require a longer period e.g. 6 months.

The pain should settle down gradually over the following weeks. It is important to note that your body’s natural healing processes take place over a minimum of 3 months, so it is not unusual to be experiencing some pain during this time. Recovery from joint replacement can take anywhere between 6-12 months.

Post-operative progress

As previously stated, the discomfort from the operation will gradually lessen over the first few weeks. You should be able to move your arm comfortably below shoulder height by approximately 8-12 weeks.

Normally the operation is done to relieve pain and restore function to your shoulder; this can take approximately 6-9 months. Remember that every operation is individual to that person. Do not become concerned if you are progressing differently to the guidelines. You will be able to discuss your progress with your physio/surgeon at your follow-up appointment.

Initial exercises

1. Bend and straighten your elbow 10-20 times 3 x a day

2. Tilt your head side to side 10 times 3 x a day
3. Make a fist and release regularly

4. Gently let your arm swing backwards and forwards like a pendulum 30 seconds 3 x day

The wounds

Depending on your surgery (open, keyhole) you will have either removable stitches and or sticking plaster strips. Removable stitches will be removed at 10-14 days after your operation. This is usually carried out at you GP surgery or in clinic.

Follow up appointments

You will usually be referred for you physiotherapy outpatient when you leave hospital. The main aim in the first 4-6 weeks is to maintain/increase your range of movement so you may only be seen once or twice in this time frame.

Generally after 4-6 weeks more regular physiotherapy maybe required to help regain muscle strength around your shoulder. Your surgeon’s team will arrange a follow up appointment following your surgery. This should normally happen by 12 weeks post operation. If you have any questions or concerns please do so at this appointment. This appointment will be arranged when you leave hospital.

Things to remember

Initial 6 weeks

Until told by your surgeon/therapist you must continue to wear your sling for this period. It is important that you do not use your shoulder actively; you therapist will show you how to move your arm using the other arm (these are called passive or passive assisted exercises). No rotational movements such as hand behind back or head. Exercises that involve taking your arm over shoulder height should be avoided. Exercises that cause excessive pain should be modified or discussed with your physiotherapist.

If you have any concerns please contact the surgeon’s secretary:

Mr Corner and Mr Irwin: 01727 897 046

Or alternatively email: shoulderandelbow@whht.nhs.uk