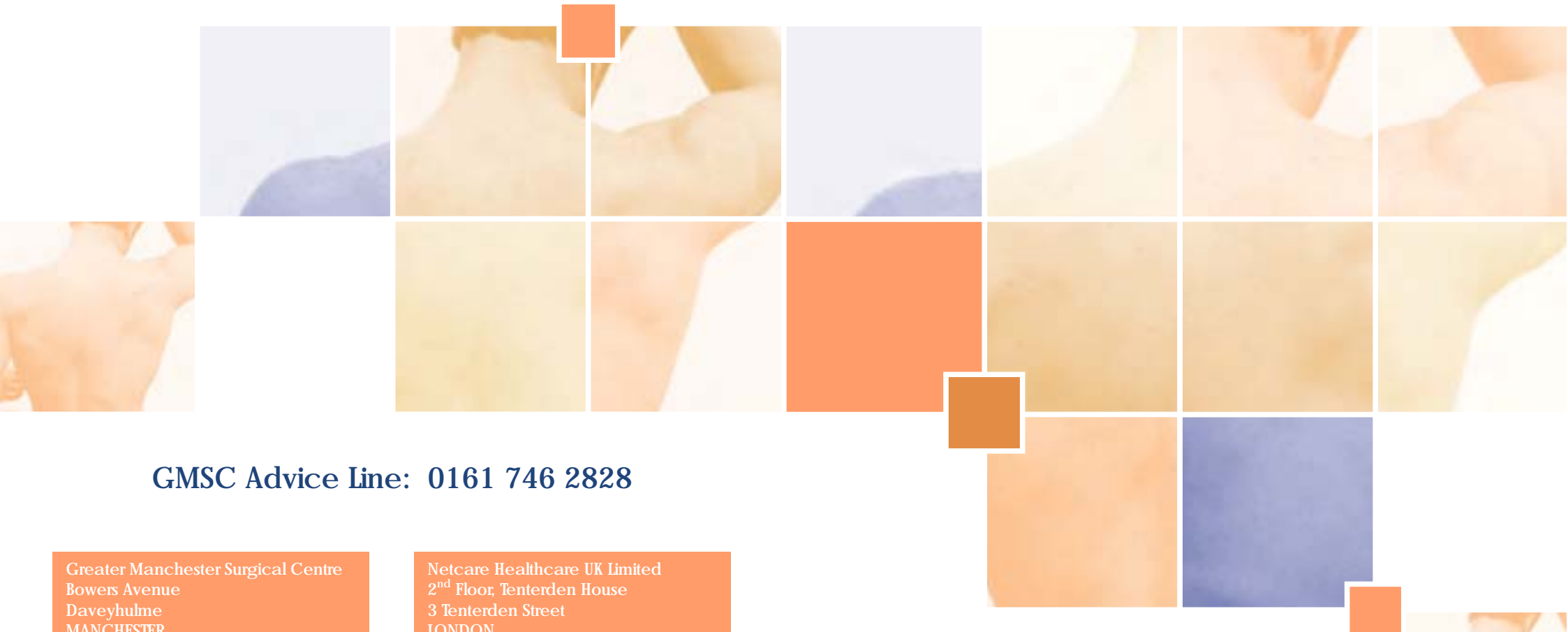


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An NHS and Netcare Healthcare UK Ltd Initiative



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What You Need To Know About Shoulder Surgery



UNITED KINGDOM

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NHS Treatment Centre



UNITED KINGDOM



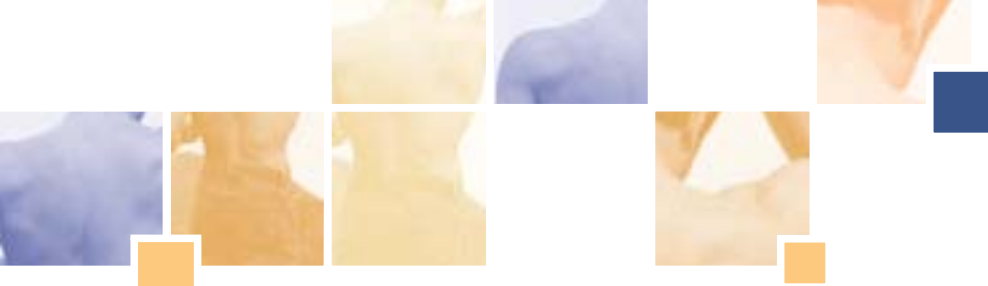
NHS Treatment Centre



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1. Introduction

1.1 What is shoulder surgery?

The ‘exercise revolution’ has resulted in higher levels of activity amongst people of all ages. As a result, shoulder pain and problems have become more common. Currently, injuries and concerns related to the shoulder account for nearly 20 percent of visits to the doctor’s office in some countries!

The shoulder is one of the most sophisticated and complicated joints of the body. It is the joint with the greatest range of motion and is therefore able to move the arms in many directions. However, this wide range of motion makes the shoulder more prone to injuries. The co-ordinated activity of numerous muscles working together in defined patterns is required to produce movement in the shoulder. The shoulder is made up of four joints and five linked bone groups which are related and work together.

To a large extent, successful surgery to the shoulder depends on a partnership between you and the surgeon. Once you and the doctor decide to proceed with shoulder surgery, you should ensure that you are mentally and physically prepared for the procedure. Understanding the process and your role is critical as this will hasten your recovery and enhance the outcome of the surgery. While it is impossible to describe the details of every surgical shoulder procedure, many of these operations share the following:

- An anaesthetic will be required during your surgery.
- You will probably need to wear a sling for a period of time.
- After the surgery, you will need to have physiotherapy in order to regain as much strength and movement in the shoulder as possible.

1.2 Anatomy of the shoulder



1.3 Shoulder injuries

Common sporting injuries of the shoulder include:

- Dislocations
- Acromioclavicular joint (ACJ) injuries
- Rotator cuff injuries
- Labral tears
- Thrower's shoulder
- Biceps injuries
- Bursitis
- Fractures

Shoulder dislocations

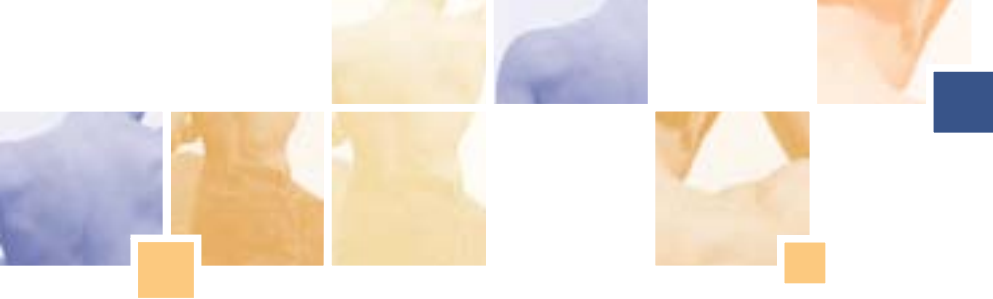
Dislocations and ACJ injuries are more common in contact sports such as rugby and wrestling, while rotator cuff tears and biceps lesions tend to occur in sports involving explosive heavy weight-lifting. Fractures around the shoulder are seen in sports involving crashes and falls from heights (of which there are many).

With sports injuries, it is often difficult to effectively assess the severity of a shoulder injury and the damage to the surrounding structures because simple muscle strains often resemble more serious injuries. Thus, early assessment of shoulder injuries by an experienced shoulder therapist or surgeon is essential to a successful treatment outcome. Early evaluation mechanisms may include a series of X-rays and/or special scans.

Because the shoulder joint is the most mobile in the body, it is potentially unstable and is the most frequently dislocated joint. In some instances, even minor trauma can cause the shoulder to 'slip' out of the joint socket. If the shoulder does dislocate, it needs to be 'put back' or reset as soon as possible. Physiotherapy is then necessary to complete the healing process.

Over 50 percent of dislocations can recur, especially in young people who play sport. Repeated dislocations lead to more instability and stretching of the shoulder joint, which in turn, leads to prolonged periods of absence from sporting activities and poor performance. Early surgical treatment is recommended and keyhole repair (a minimally invasive procedure) offers the advantages of less pain, fewer complications and a quicker return to sporting activity.

Acromioclavicular joint injuries



Acromioclavicular joint injuries

The hard small lump on the top of the shoulder is known as the Acromioclavicular Joint (ACJ). This joint is very important for overhead throwing and other sporting activities. It is commonly sprained by repeated falls on the shoulder and through tackling-type actions. It can also dislocate, resulting in a more prominent painful lump.

Sprained joints tend to cause more long-term pain than do true dislocated joints. Injections and physiotherapy frequently improve the pain, but surgical removal of the joint is often necessary in cases of persistent pain. Such a procedure can be performed via keyhole (arthroscopic) surgery which has the advantage of less post-operative pain and an early return to sport. Traditional open surgery, wherein important ligaments are divided, can weaken the shoulder. This can be avoided with arthroscopic surgery.

Impingement syndrome

Subacromial impingement (also known as bursitis, impingement syndrome, rotator cuff tendonitis, supraspinatus tendonitis) occurs with repeated overhead use of the arm. It is also common in older athletes who develop small bony spurs which trap the rotator cuff tendons above the main shoulder joint. Injections and physiotherapy often improve this condition but repeated steroid injections should be avoided (especially in athletes).



Surgery involves keyhole 'spring-cleaning' of the subacromial bursa with removal of the bony spur. This is called arthroscopic subacromial decompression.

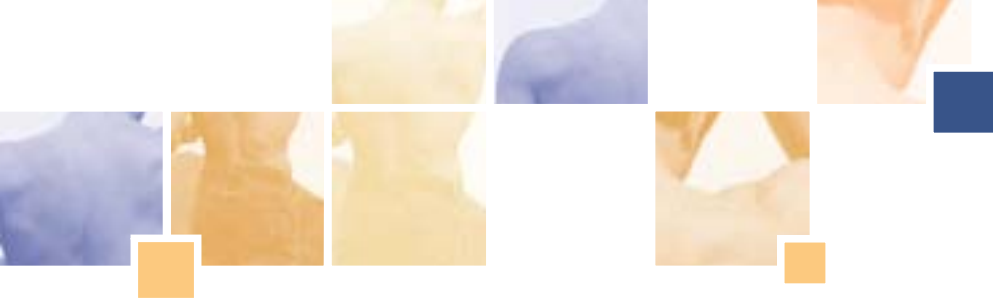
Rotator cuff tears

The rotator cuff is a very important group of tendons that provide movement and stability for the shoulder. When damaged, pain and weakness in the shoulder can be significant. Tears caused by injury, especially in athletes, should be repaired as soon as possible otherwise they become worse and are more difficult to repair. Ultrasound scanning has the advantage of being able to locate tears early, facilitating the appropriate treatment. Rotator cuff repair can be performed via keyhole or open surgery. In experienced surgical hands, the repair of tears via keyhole surgery has the same success rate as do open surgery procedures.

SLAP lesions

Superior Labral Antero-Posterior (SLAP) tears of the shoulder are more common in overhead throwing, heavy lifting and tackling sports. In this injury, the biceps muscles' anchor in the shoulder is forcibly peeled or pulled off its bone attachment by force. This can occur during a heavy lift, hard throw, tackle or fall. The symptoms of this injury include pain deep inside the shoulder during lifting and sports. Some patients complain of a clicking sensation and pain which extends down to the upper arm. In order to accurately diagnose this condition, keyhole surgery (arthroscopy) will be performed as it allows the surgeon to examine the inside of the joint via a camera which is located at the end of the arthroscope.

Biceps injuries



Biceps injuries

The weakest points of the biceps muscles are the areas where the tendon attaches to the bone at the elbow and at the junction between the biceps muscle and its tendon.

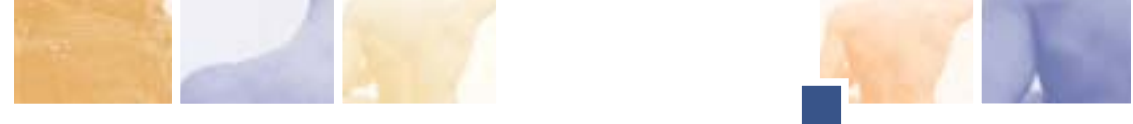
The biceps usually ruptures at the elbow in athletes. When this happens, the athlete will feel a burning sensation, after which a lump in the arm will develop. In athletes and manual workers, prompt early repair of the biceps is advisable as this can be very difficult to repair at a later stage. The biceps may also rupture at the shoulder. This usually occurs in older people and is associated with rotator cuff tears.

If surgery is needed, the procedure involves attaching the tendon to the humerus bone in the arm (this is called a tenodesis). Biceps pulley lesions sometimes occur in athletes and should be considered when pain presents on the top and front of the shoulder. These are diagnosed by an experienced surgeon using keyhole surgery.

Labral tears

The labrum is a cushion surrounding the socket of the shoulder joint which can tear during injuries to the shoulder. Labral tears usually occur as a result of falls or direct blows to the shoulder, but may also result from throwing or pulling injuries.

These injuries can be diagnosed with MR arthrograms (an MR scan with a special



These injuries can be diagnosed with MR arthrograms (an MR scan with a special dye injected into the shoulder joint), and may be confirmed when keyhole surgery (an arthroscopy) is performed. Large tears are associated with shoulder dislocations and are called Bankart Tears.

Thrower's shoulder

With repetitive overhead throwing, the front of the shoulder will stretch and the back will get tighter. This can cause abnormal gliding of the shoulder joint and a 'catching' of the labrum and rotator cuff, leading to rotator cuff tears and abnormal wear of the labrum. It requires specific expertise to diagnose and treat this condition.

Frozen shoulder

True frozen shoulder (a very stiff painful shoulder with no obvious cause) is exceptionally rare in athletes. However, a stiff painful shoulder following an injury (sometimes quite minor) is relatively common. In these cases, it is essential to treat the stiffness early as well as the underlying injury causing the stiffness. A medical team comprising an experienced physiotherapist and shoulder surgeon is fundamental to a successful recovery from this condition.

Shoulder arthritis

Arthritis occurs when a joint wears with age or overuse. The lubricant is reduced and the joint becomes stiff and painful. A combination of painkillers, keeping the shoulder active and the muscles toned, is of the utmost importance. However, when the pain is severe enough and affects daily activities as well as sleep, a shoulder joint replacement should be considered.



Arthroscopy

Arthroscopy is commonly known as 'keyhole surgery'. Usually only two or three 5mm puncture wounds are required, preventing scarring from large incisions. Most shoulder procedures can now be performed via an arthroscopy as opposed to open surgery. Since smaller incisions are made and there is less dissection to the surrounding structures, arthroscopic surgery has the following advantages over open surgery:

- Recovery is usually quicker after arthroscopic surgery.
- Post-operative pain is usually less.
- The procedure can be performed as a day case.
- There may be fewer complications.
- The shoulder joint is examined using a tiny telescope with a camera which is introduced through a small 'keyhole'. The telescope and camera are known as the arthroscope and this is connected to a TV screen which allows the surgeon to view the identified area during the procedure. Special instruments can also be inserted through other small incisions.

2. Before Surgery

2.1 Pre-assessment clinic

Before any surgery is considered, you will need to attend a pre-assessment clinic at the Greater Manchester Surgical Centre (GMSC). Here, an orthopaedic surgeon, in consultation with a team of medical professionals including an anaesthetist,

anaesthetist, will assess you to decide whether you are a suitable candidate for shoulder surgery.

During your appointment, your full medical history will be taken. If necessary, the orthopaedic surgeon or anaesthetist may send you for further investigations such as blood tests, X-rays and/or an ECG. Don't be alarmed if you are required to undergo one or more of these investigations. The doctors have your wellbeing and best interests at heart and need to ensure that you are able to cope with the respective surgical procedure.

The anaesthetist will discuss the various methods of anaesthesia and the one best suited to you and your procedure (refer to the GMSC's Anaesthetic brochure). Your post-operative pain management plan will also be discussed.

It is very important to discuss any medications you may be taking with the anaesthetist. If you are taking blood-thinners, you may be asked to discontinue them for some time before the surgery as they can increase the risk of bleeding and interfere with your surgery and recovery. For several days prior to your procedure, you will probably be instructed to avoid any aspirin, ibuprofen and all herbal or homeopathic preparations. You should continue to take your normal medicines up to and including the day of surgery, unless the anaesthetist or surgeon has explicitly instructed you otherwise.

Once you fully understand what the procedure entails, you will be asked to sign an informed consent form in the presence of the orthopaedic surgeon.

At your pre-operative assessment, the proposed date for your procedure will also be discussed and finalised.



2.2 Countdown to surgery

In the day/night leading up to your surgery, it is very important to refrain from eating or drinking anything for up to 10 hours ('nil by mouth') before the operation, unless instructed otherwise by the doctor.

Remove your dentures and all nail polish. Ladies are requested not to wear any make-up on the day of surgery.

Leave all jewellery, money, watches and valuables with family members. The GMSC cannot be held responsible for your valuables.

Make sure you wear casual, comfortable clothing which is easy to put on and take off eg. drawstring-style sweat pants, boxer-style shorts, or loose items. Blouses and shirts should preferably be front-fastening to allow for easier dressing. You will be allocated a locker for storing your clothing while you are in surgery.

You may also wish to bring along some reading material or crossword puzzles to occupy your time while you are in the hospital.

You will not be allowed to leave the hospital alone or drive yourself home so arrange for a responsible adult to drive you to and from the hospital and have someone stay with you for at least 24 hours once you are back home.

3. During Surgery



3. During Surgery

The anaesthetist will start an intravenous line and discuss the type of anaesthesia which will be administered. This can vary and options include local anaesthesia with sedation, regional anaesthesia, and general anaesthesia.

Once your anaesthetic has been administered, you will be taken through to the theatre where your procedure will be performed. You should be in theatre for one to two hours.

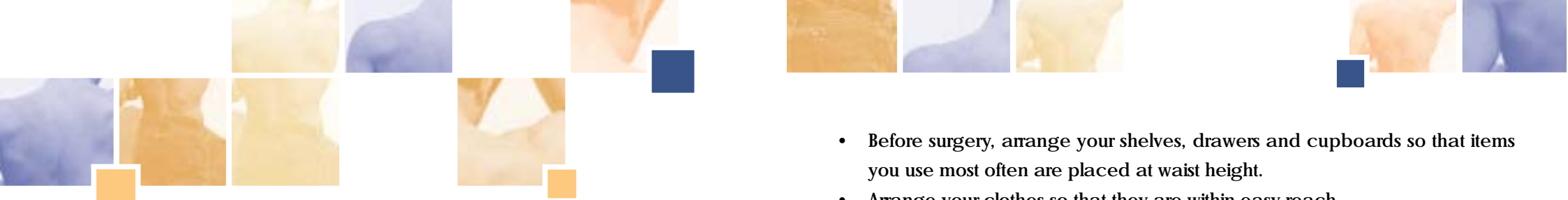
4. After Surgery

When your surgery has been completed, you will be taken to the recovery room where you can expect to stay for about one hour, but this may be longer depending on the type of surgical procedure and anaesthesia you underwent. While you are in the recovery room, the nurses will frequently check your blood pressure, pulse, respirations, and temperature. They will also be checking the sensation and circulation in your operated arm.

The surgeon might insert a drain into the wound area. This should be removed 24 - 48 hours after surgery. You will have a bulky dressing covering the incision site. After 24 - 48 hours, the dressing will be changed for a smaller variation. You may also have a large bandage, brace or sling on your shoulder.

The nursing staff will continue to monitor your recovery, provide medication for pain and/or nausea, and give you ice chips and liquids. During this final recovery stage, the nurses will review the discharge instructions and ensure that you get your prescription medications. You will also be seen by a physiotherapist.

Your discharge from hospital is based on your recovery from the effects of the



Your discharge from hospital is based on your recovery from the effects of the anaesthetic, the type of procedure that was performed and whether your pain is under control. The surgeon determines when you are ready to be discharged. Remember that you will need someone to drive you home from hospital. If additional medical observation is required, you may be admitted to the hospital.

Note: In order for us to maintain a high quality of care and prevent any possible risks, we respectfully request your permission to exhibit your details at your bedside. Your initials, surname, doctor's name and possible risk factors, eg. diabetes, will be displayed above your bed on a small white board.

5. At Home

5.1 General tips

If indicated, the community occupational therapist will have visited you at home before your surgery to advise you on safety factors around the house. If you live alone, it is advisable to have a 'carer' look in on you for the first few days after your discharge from hospital. It is best to make plans with your 'carer' before you have your surgery. If this is not possible, consider staying with a relative or friend for a short time.

For a few weeks following your shoulder surgery, special precautions need to be adhered to in order to protect your shoulder. Handy tips to remember include:

- Before surgery, arrange your shelves, drawers and cupboards so that items you use most often are placed at waist height.

- Before surgery, arrange your shelves, drawers and cupboards so that items you use most often are placed at waist height.
- Arrange your clothes so that they are within easy reach.
- Make sure that all floors, doorways, and halls are clear.
- Be aware of uneven or wet floors.
- Remove throw rugs from floors and hallways.
- After surgery, you will want to avoid stretching to reach up or lift anything.

5.2 Pain control

Take your pain relief medication as prescribed by the doctor. The physiotherapist will instruct you on ways to relieve inflammation and thus, pain.

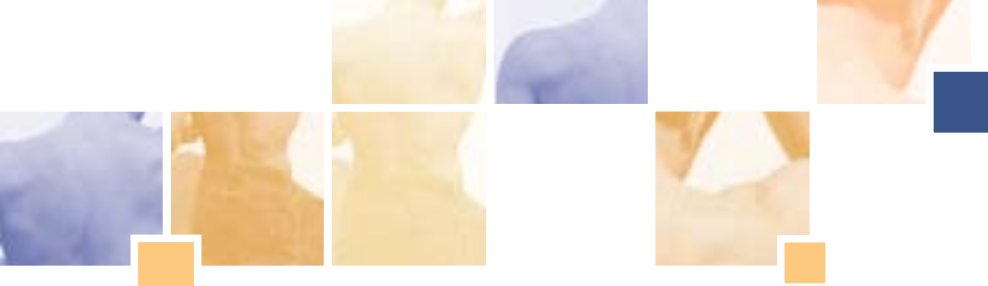
5.3 Your sling

This is relevant if you have had one of the following operations and need to wear a sling for six weeks, unless otherwise instructed by your doctor:

- A shoulder replacement for a fracture or tumour.
- A rotator cuff repair.
- Shoulder stabilisation.
- Acromioclavicular joint stabilisation (Weaver-Dunn).
- A fracture fixation.

5.4 Washing your body

For the first three weeks after your operation, strip-wash only. Keep the operated arm in the sling at all times, ensuring that you wash under your armpits daily. You will need help with washing your un-operated arm.



After three weeks, you may still require some assistance but the sling may be removed when you wash yourself (refer to the instructions for removing a sling). At this stage, you will find it easier to either sit on the edge of a chair, or stand up with your arm 'hanging' next to your side (refer to getting dressed below). You should be able to wash your operated arm with your un-operated arm in this position.


During the next three weeks, you will need assistance with washing your un-operated arm as you will not be able to use your operated arm. It may be possible to use either a cubicle shower or an over-bath shower. The occupational therapist will advise you on the most appropriate solution.

When drying yourself, it may be easier to put on a towelling bathrobe. This will help to dry your un-operated arm (refer below to the correct technique for dressing).

5.5 Getting dressed

The sling may be worn over your clothes.

Make sure that all your shirts or blouses are front-opening. Always dress the operated arm first. Sit on the edge of a chair or stand with your arm 'hanging' next to your side. Slide the operated arm into the garment first, using the un-operated arm. Do not use the operated arm, just let it hang loose. Once this arm is fully in the sleeve, bring the garment around your back and put the other arm inside.



Any fasteners should only be fastened with the un-operated arm. Your occupational therapist will show you how to do this.

Once you have dressed your upper body, place your arm back in the sling.

Unless otherwise instructed by the doctor, the following guidelines apply:

5.6 Eating

For the first six weeks after the operation, you should only eat using the un-operated hand. After this, you may once again feed yourself 'normally' (with both hands). The occupational therapist will assist you with this.

5.7 Getting in and out of bed; on and off the toilet and sitting on a chair

For the first six weeks, pushing up from the bed, chair, toilet and bath should be done using the un-operated arm only. After six weeks, you may once again use both arms.

5.8 Sleeping

For the first six weeks, the sling should be worn while you are sleeping. Initially, you may find it more comfortable to sleep on your back with a pillow under your operated arm for support.



5.9 Cooking and other kitchen activities

For the first six weeks, only the un-operated arm should be used for kitchen activities. After this, you may resume using both arms.

Avoid lifting anything heavy for six months. Six weeks after your surgery, you may lift light items only or anything that can be easily lifted with one hand.

5.10 Housework

You may resume light housework after six weeks. More strenuous housework should be avoided for six months after your operation.

If you have any doubts about the safety of an activity, please contact the doctor.

5.11 Stairs

When climbing/descending the stairs, hold on to the banister with the un-operated arm. This may mean that you require a second railing. The occupational therapist can arrange this on your behalf. After six weeks, you may hold on to the banister with either arm.

5.12 Incision and dressing changes

5.12 Incision and dressing changes

Unless otherwise instructed by your doctor, the district nurse will check on the wound and if applicable, she will remove any clips or sutures seven to 14 days after surgery. The wound should be kept clean and dry for 10 days, after which normal washing may resume.

The incisional area may be swollen and bruised following surgery. To relieve pain in the shoulder and prevent swelling after exercising, ice wrapped in a towel may be applied to the area for 20 minutes.

5.13 Driving

You are advised not to drive until you no longer need to wear a sling; your pain has subsided and you feel confident in your own ability. It is advisable to contact your insurance company and inform them of your operation and progress in your rehabilitation program. Before driving again, it may be necessary to enquire whether there are any specific policies regarding your physical condition after your surgery.

5.14 Returning to work

The nature of your job will influence the length of time that you are booked off work. One can expect a minimum of three weeks for minor tears (which may be extended if your work involves heavy duties). Discuss this with the doctor.



5.15 Sports

The length of the rehabilitation time will depend on the findings of your surgery and the nature of your procedure. You will be guided through the rehabilitation programme by the physiotherapist. It is essential that this programme is strictly adhered to and observed. Sustained, repetitive arm activities should be avoided for three months. Discuss this with your doctor.

NB: The above are guidelines only. If you have any concerns or additional queries, please contact the GMSC Advice Line on 0161 746 2828 or the surgeon.

6. Exercises

Rehabilitation through a physiotherapist and home exercise is especially important for the successful management of shoulder injuries and surgery. The time constraints placed on your rehabilitation and on the period of restricted activity of your shoulder joint, depend greatly on the findings of the surgery and the nature of the procedure that was performed on your shoulder. After surgery, your physiotherapist will educate you on:

- Which rehabilitation programme you should follow.
- What restrictions you must observe.
- The duration of your programme.

It is advisable to only do the exercises that the physiotherapist suggests.

6.1 Immobilisation devices

One of the following immobilisation devices may be applied in the operating room:

- A sling;
- An immobiliser; or
- A splint or airplane cast.

Contact the GMSC Advice Line on 0161 746 2828, call your local general practitioner, or go to the nearest Accident and Emergency Centre if you experience:

- Signs of infection such as an increase in warmth, redness or pain from the incision, new drainage, increase or change in the drainage from clear to thick greenish-yellow or a foul smelling drainage.
- A fever over 100 degrees Fahrenheit.
- Chills.
- Changes in sensation such as tingling or numbness in your fingers/arm.
- Decreased motion to the injured/surgical arm which is not relieved with rest, repositioning, the sling or elevation.
- Persistent or increased pain.
- Increasing pain in your calf muscle.
- Shortness of breath or chest pain.

7. GMSC Advice Line

The staff at the GMSC are available to assist you at any time. You can reach them by calling: 0161 746 2828.

8. About Netcare and the NHS Partnership



8. About Netcare and the NHS Partnership

8.1 Netcare

Network Healthcare Holdings Limited (Netcare) is one of the largest integrated private healthcare organisations in South Africa. Listed on the Johannesburg Securities Exchange (JSE) in 1996, the Netcare group owns and manages 45 private hospitals and clinics, 61 specialised medical centres and 53 Medicross Family Medical and Dental Centres throughout South Africa.

In total, Netcare hospitals comprise 7 200 beds, 319 operating theatres; all of which are supported by over 2 200 medical practitioners in private practice. Collectively, over 4.8 million patients a year are cared for in medical facilities within the Netcare group.

Specialised hubs of clinical excellence focusing on disciplines such as cardiology, cardiothoracic surgery, neurosurgery, orthopaedic surgery, gastroenterology, oncology, ophthalmology, renal dialysis and organ transplantation are located in numerous Netcare hospitals.

8.2 The Netcare/NHS Treatment Centre Partnership

During the past two years, Netcare has participated in four successful NHS Waiting List Initiatives which were specific to ophthalmology; orthopaedic surgery; and ear, nose and throat surgery.

Committed to reducing waiting times for those needing surgical procedures and to improving choice and access to facilities; in 2003, the NHS launched its Treatment Centre (TC) initiative, a programme designed to provide rapid, safe and effective medical treatment to patients on Waiting Lists.

Against the backdrop of its previous experience with NHS Waiting List Initiatives, Netcare was selected as the successful bidder for two such five-year TC initiatives; the first of which is based on a mobile ophthalmology chain that will perform 44 000 cataract procedures over five years. The second TC initiative will see 45 000 orthopaedic and general surgery procedures performed at the newly-constructed Greater Manchester Surgical Centre (GMSC) over the five-year period.

The Netcare/NHS partnership upholds the NHS' principle of delivering excellent service free at the point of access. Providing the highest possible quality of care while maintaining patient dignity at all times, is a fundamental objective of the partnership.

Netcare's medical team consists of highly skilled, experienced and professionally qualified consultant surgeons, anaesthetists and nursing personnel, all of whom are supported by administrative, technological and patient care teams.

We dedicate our efforts to providing you with quality care in a safe, efficient and caring environment.

