Dr Doron Sher

MB.BS. MBiomedE, FRACS(Orth)

Knee, Shoulder, Elbow Surgery

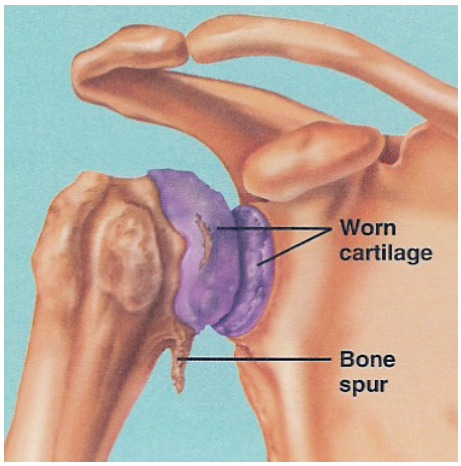
ORTHOSPORTS™

TOTAL SHOULDER REPLACEMENT

The Shoulder Joint

The shoulder joint is one of the most complex joints in the body. It has a greater range of motion than any other joint and is a ball and socket type joint. It is made up of bone, cartilage, tendons and muscles, all of which are affected to differing degrees by different forms of arthritis.

Arthritis is a degenerative condition where the lining of the joint (the articular cartilage) wears away, leaving a rough and worn joint surface. Chronic (ongoing) shoulder pain and / or loss of movement are the most common reasons for shoulder replacement surgery and are usually age related. Due to similar age related changes, the muscles about the shoulder (the rotator cuff) may tear as well. This reduces the power and movement of the shoulder. Unfortunately this is a progressive disease and it is not reversible. Fortunately for some people the progression take place at a variable rate and many people will not need surgery for their condition.



Early in the disease anti-inflammatory medications, physiotherapy and a reduction of activities may relieve the symptoms of the arthritis. As time goes by the pain and stiffness eventually become unbearable and it is then time to consider a shoulder replacement.

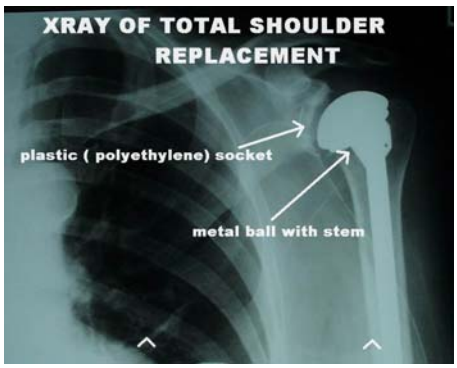
During surgery the damaged parts of the shoulder are removed and replaced with artificial parts (components) called prostheses.

One reason why this type of surgery is not recommended early in the disease process or at a young age is that the artificial shoulder only has a life span of 10 to 15 years. In addition, while the surgery usually works very well, it is not always successful. Although a worn out component can be replaced, the results of a redo (revision) shoulder replacement are not particularly good. Unless there are exceptional circumstances, shoulder replacement is not recommended in patients under 50 years of age.

The prostheses are made of metal and ‘plastic’. The component in the humerus (ball part) is typically made out of a metal alloy of titanium and the component in the glenoid (socket part) of a ‘plastic’ material called polyethylene. These are often ‘cemented’ into place but the technique will vary depending on the patient’s quality of bone, whether their rotator cuff is intact or torn and whether they have problems with other joints in the body.

Where it is possible, it is best to replace both the ball and socket of the shoulder. Sometimes only the ball part of the joint can be replaced. This is typically when the rotator cuff is torn and not repairable or when the socket is not damaged. This decision is usually made at the time of surgery when the surgeon looks into the joint and assesses the exact amount of shoulder damage.

Pain relief from the surgery is usually good but not perfect. If your rotator cuff is functioning well you should expect to be able to comfortably get your hand over your head. If the rotator cuff is torn you may only get your hand to touch your head.



Most people have a good range of motion following surgery but few people ever regain a full range of movement.

As with any surgery, infection is a risk with shoulder replacement. Since this is a joint replacement the risk of infection continues for many years after the surgery. If a blood borne infection from another site, such as an infected tooth or urinary tract infection, travels to the artificial shoulder it may cause it to become infected. Any infection (whether trivial or not) should be taken seriously following this type of surgery.

Prior to having surgery it is recommended that you see your dentist for a check-up and if you have any bladder, urinary or prostate problems, you should be assessed by a urologist (talk to your GP first). Problems in any of these areas should be corrected prior to your shoulder surgery.

If you have certain medical problems you may require some preoperative tests to ensure that you are fit for a general anaesthetic. These will be organised through my office and you may need to see a physician. Generally speaking blood transfusion is not required. If you are already under the care of a medical specialist I would strongly suggest you see them prior to surgery to ensure you are in the best possible medical shape.

One week prior to surgery, you will need to wash your shoulder girdle with PHISOHEX antiseptic solution (available from your chemist). If you get an allergic reaction to the Phisohex then stop using it immediately and inform my office. You are to avoid getting sunburnt.

If you are on Anti inflammatory tablets or Aspirin, please check with your GP and if he or she says it is safe, stop the tablets 10 days prior to surgery.

What to Bring to Hospital

- Comfortable, non skid walking shoes. Slip-on shoes are preferred.
- Clothes that are soft and loose fitting.

Preparation for Surgery

- Before surgery, do not eat or drink anything after the time instructed to you by the hospital or anaesthetist. Your stomach must be empty before you receive the anaesthetic. This helps prevent nausea, vomiting and other complications during and after the anaesthetic.
- Do not wear make-up on the morning of the surgery as this will increase the amount of bacteria on your skin.

The Operation

The operation takes 2-3 hours. The cut is on the front of the shoulder and extends into the upper arm. There will be some permanent numbness about the scar. As indicated earlier, the operation involves cutting out the damaged ball and socket and inserting the artificial components. If the rotator cuff muscles are torn then an attempt to repair the muscles is made. When you wake up you will find your arm in a sling and have a drain coming out of the wound. You will be given enough pain killers to keep you comfortable

Preparing Yourself and Your Home for Surgery

Recovery is a gradual process and will take time after surgery. *Plan for your return home before you enter the hospital.*

- Make sure your spouse or a friend are available to help you with shoulder exercises for six to eight weeks after leaving the hospital.
- Before surgery you should practice your regular daily activities using only the non operated arm.
- Anticipate a temporary change in your activity levels and leave your home clean and in order before going to hospital.
- To prevent falling, remove throw rugs and excess clutter from traffic pathways.
- Place a sturdy armchair in your living room near a table so that magazines, telephone, TV remote or other items you want can be within reach.
- Rearrange your kitchen so that often used utensils are easily accessed. Place them at a height so that you don't need to bend to reach to get them. It is also helpful to have a sturdy chair available in your kitchen.
- If possible, prepare some meals in advance and freeze them.
- You will be admitted to the hospital on the morning of the surgery and you will be visited by the anaesthetist to make sure you are fully fit to undergo your anaesthetic. Some patients will be able to have a "block" which is a local anaesthetic injection to numb the area of the surgery for about twelve hours after the operation. The risks of this procedure should be discussed with your anaesthetist. There are several methods of providing pain relief after the surgery which will be discussed with you.
- You must remove all jewellery from your hand prior to surgery.

The day after the surgery I will see you and discuss your operation with you. The drain will be removed and a waterproof dressing will be placed on the shoulder. You are then able to shower but must leave your arm adjacent to your body even when the sling has been removed. **It is very important that you do not lift or rotate the arm at any time.** The sling will be placed back on your arm when you are dry and it is important to get out of bed and walk around as soon as you are comfortable. You make very sure the armpit is as dry as possible to reduce the risk of a sweat rash or armpit infection. Ice may be applied to help reduce the swelling and discomfort around the incision and you should inform the nurse if your arm gets too cold or if there are any changes in the sensation of your hand.

On the second day after the surgery you will start an exercise program under the supervision of a physiotherapist. This is for PASSIVE movements only and are performed with the unoperated arm lifting the operated arm over the head, while lying down. This protects the muscles in the operated shoulder from contracting and potentially disrupting the surgical repair. The shoulder takes about six weeks to heal and the exercises are started early to avoid stiffness following the operation.

To increase your comfort during your exercises, you may want to take pain medications 30 minutes before your physiotherapy sessions. The physiotherapist will check your early progress and keep me informed. If possible, a member of your family or a friend should accompany you to the physiotherapy sessions to learn the exercises you should do at home. This person will practice these exercises under the supervision of the physiotherapist first which can then be performed at home.

Approximately four days after the surgery you may be discharged from hospital after I have seen you. The exact timing of the discharge will depend on your pain level, your progress with the exercise program and your home situation.

When you leave hospital you will be given medications for pain, as well as tablets to help you sleep at night time. Should you require extra tablets, either let my office know or see your family doctor. You will also be give a package of antibiotics which you should continue until you finish the packet. It is not necessary to continue these antibiotics beyond this package unless I have told you otherwise.

The waterproof dressing on the shoulder allows you to shower without compromising the sterility of the wound. This dressing is relatively see through and accumulates a white material underneath it which may look like pus. This is normal for this type of dressing and indicates good wound healing. If you have symptoms of chills, fevers or sweats or an alteration of the pain level in your shoulder you should contact my office. The dressing should not be changed until I see you.

It is common to get swelling about the arm, forearm, hand and fingers and this will settle with time. Once your dressings are removed by me you can start using talcum powder in your axilla to help keep it dry.

Once you get home you will need to do exercises four times a day for six weeks. **These are passive exercises only** and you will not need to see a physiotherapist during this time unless you have difficulty doing the exercises yourself (or do not have someone to assist you with the exercises). **The sling must remain on 24 hours a day.** It should not be removed for sleeping but may be removed very briefly for a shower, at which time the arm should be kept adjacent to the body. **You must not elevate or rotate the operated arm at any time for any reason.**

Since the Roads and Traffic Authority does not permit driving a vehicle while you are wearing a sling I recommended that you not drive for at least six weeks.

You will be seen approximately two weeks after the surgery for your stitches to be removed and your movements checked. If the movements are a little slow you will see a physiotherapist but if you are making satisfactory progress your physiotherapy will not start for six weeks. It is important to do your exercises at least four times a day, every day. You may use your hand for gentle activities directly in front of you and may bend the elbow, wrist and hand but must never move the shoulder. It is best to avoid lying or turning onto the affected shoulder.

You should apply ice to your shoulder before and after exercises to reduce pain and swelling and must not use a heating pad as this will increase swelling around the joint.

I will see you next at six weeks post operatively when your sling will be removed and formal active physiotherapy will be started. At this point you will be allowed to lift your arm up under your own power and you will be given a set of exercises using a rubber band. Despite the fact that you will only be supervised by a physiotherapist two to three times a week you must do your exercises at home at least four times a day, every day. It is not unusual to have an increase in pain when you commence active exercise programs. At six weeks you will be able to lift objects weighing less than two kilograms. You can move your arm in any direction you desire and I will upgrade your exercises and lifting limits from time to time when I see you. This will depend on your clinical progress and you should not adjust these without consulting me first.

It takes approximately six to twelve months for the shoulder to reach its full potential and the exercises are required for that period of time.

Even with an excellent result, you will never have a perfect shoulder. Pain relief is very good but range of motion never returns to normal. This is particularly true if the rotator cuff is torn. By avoiding heavy or repetitive work you make it less likely that the implants will loosen within your shoulder. Racquet sports should be avoided but golf and bowls are allowed. Freestyle swimming should be avoided but for most people breast stroke is OK.

When to Contact Me

- Fever above 38 degrees Celsius
- Increased pain unrelieved with pain medications
- Sudden, severe shoulder pain.
- Increased redness around the incision
- Increased swelling at the incision
- A bulge that can be felt at the shoulder
- Shoulder pain, tenderness or swelling.
- Numbness or tingling in the arm.
- Change in arm length
- Change in colour and temperature of the arm.
- Change in motion ability
- Drainage or odour from the incision
- Any sign of any infection anywhere in your body should be reported to your GP AND me as soon as possible and most likely you will need to start antibiotics.

I will see you each year following your surgery with an x-ray of your joint. This allows me to ensure that the artificial joint is not loosening and to ensure that your progress has been maintained. If there is significant loosening or wear of the components, a redo of the replacement may be required. The second time an operation is done has a lower success rate than the initial replacement.

Approximately 80 to 90 percent of patients achieve an excellent or good result.

All operations have potential complications, however, complications are not common with this procedure. This is an operation that can leave you permanently worse off if you do develop a complication. The common ones include but are not limited to infections, nerve and blood vessel damage, dislocations and bone fractures. The orthopaedic literature documents a 5 percent chance of making you permanently worse off and while it is exceedingly uncommon, there is a very remote chance of you losing complete use of you whole arm. Medical complications can also occur and elderly people with heart disease or diabetes are particularly at risk.

If, after reading this handout, you have any questions, especially about the potential complications, please ring the office and leave a message for me so that I may return your call and answer your questions.

160 Belmore Road, Randwick 2031 Phone 93995333 Fax 93988673
47-49 Burwood Road, Concord 2137 Phone 97442666 Fax 97443706
Level 3, Park House, 187 Macquarie St, Sydney Phone 92332883 Fax 92310103

www.doron.com.au