Norwest Private Orthopaedic Unit

Guide to Total Joint Replacement

Community of Care

Norwest PRIVATE HOSPITAL by Healthscope

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Welcome to Norwest Private Hospital Orthopaedic Hip and Knee Clinic

A decision to have joint replacement surgery is a big one so our aim here is to put your mind at rest. This booklet is to give you an understanding of what to expect during the surgery procedure and then the recovery process. If you are well informed, you will be better able to participate in your own care during the stay in hospital, ensuring maximum benefit can be gained from joint replacement surgery.

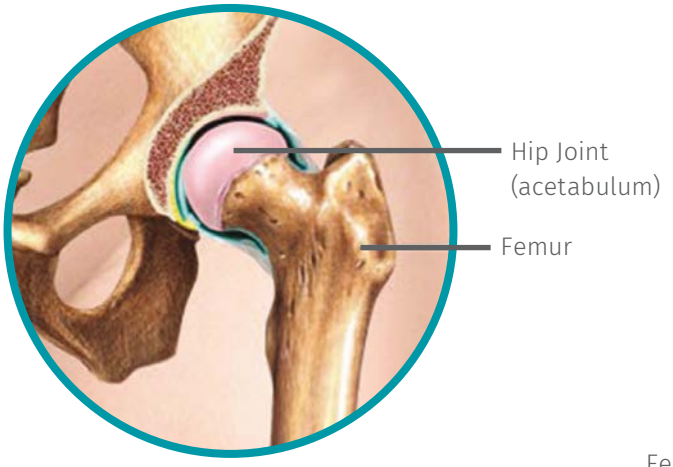
Joint replacement is a major surgical operation which aims to improve your quality of life by:

- relieving pain
- providing a stable joint
- improving function
- improving ability to exercise
- correcting deformity

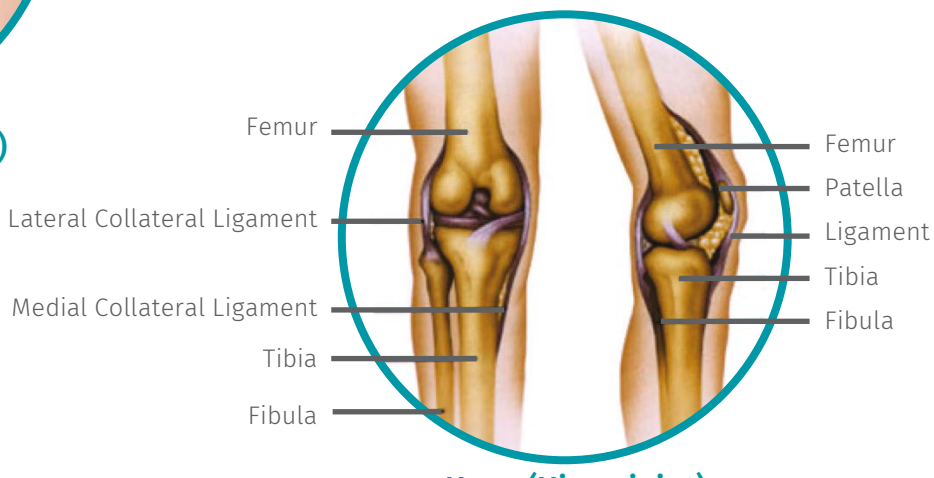
The team at the Norwest Private Orthopaedic Unit wish you well for a speedy recovery.

What is Total Joint Replacement?

Total Joint Replacement is a procedure to replace the joint that has been damaged, usually by arthritis. The hip, commonly referred to as a 'ball and socket' joint, connects the trunk of the body to the legs through the pelvis. The knee joint is referred to as the 'hinge' joint. These joints are subject to very high forces during everyday activity.



Hip (Ball and socket joint)



Knee (Hinge joint)

Preparing for Admission

Once the decision to have surgery is made, you and your family should start making plans about how to manage at home after discharge from hospital. If you foresee any difficulties, talk to the nursing staff or physiotherapist, either at the Orthopaedic Clinic or whilst in hospital, the earlier the better so help can be arranged as necessary.

Blood Donation

The possible need for a blood transfusion will be discussed with you by your surgeon. With modern surgical techniques and the medication given during surgery, there is usually minimal blood loss but if you require a transfusion, for whatever reason, there are three ways of receiving a blood transfusion:

- *Autoglogous Transfusion* – donate your own blood in the weeks leading up to surgery
- *Donated Blood* - on admission you will have a "cross match" taken by the pathology department, matching your blood group as close as possible to donated blood
- *Auto Transfusion* – your own blood is given back to you and may occur during surgery or in the unit.

For further information refer to Appendix 1 - A General Guide to Blood Transfusion
or go to https://www.cec.health.nsw.gov.au/__data/assets/pdf_file/0008/258065/A-General-Guide-to-Blood-Transfusion-Information-for-Patients-and-Families.pdf

Bone Donation

Bone donation is an option for people having a Total Hip Replacement. Prior to surgery, our staff will ask if you are agreeable to donating your femoral head which will be removed by your surgeon. If you agree to donate, the bone will be sent to the Australian Tissue Donation Network where the bone will be irradiated and processed to be used for bone grafts known as allografts for future recipients.

To confirm your donation before surgery, you will be asked to sign a consent form allowing your bone to be used in other recipients. To learn more visit Tissue Donation Network https://tissuedonationnetwork.org.au/programs/hip-donation/

National Joint Replacement Registry

The Australian Orthopaedic Association has set up a National Joint Replacement Registry so that joint replacement and prostheses can be monitored.

For further information refer to Appendix 2 – National Joint Replacement Registry Patient Information or go to websites:
https://tissuedonationnetwork.org.au/programs/hip-donation/
https://aoanjrr.sahmri.com/

What happens before surgery?

When you come to the hospital to be admitted, please go to the main reception in the foyer. From there, you will be directed to the Orthopaedic Unit or the Surgical Admissions Centre.

What observations will be performed?

Your pulse, blood pressure, breathing rate, oxygen levels and temperature will be measured regularly during your stay.

What questions will I be asked?

The nurse that admits you will ask several different questions such as when was the last time you had something to eat or drink to ensure that you are 'nil by mouth', about your medical history and if you have any allergies. The nurse will also ask about medications being taken. Use this opportunity to ask any questions that you may have prior to surgery.

Why are arm bands placed?

Upon admission, either a red or white arm band will be placed by the nurse to identify you. Red indicates you have drug allergies, so please confirm with the nurse if you have any known allergies. A white arm band indicates that you have no allergies.

How do I get ready for surgery?

You will be asked to change into a hospital gown before transfer to the operating room. The site of surgery will be 'prepared' by applying an antiseptic solution over the area and covering it with a sterile drape. All jewellery (except your wedding ring) should be removed along with nail polish and hairpins.

When will I see my anaesthetist?

Your anaesthetist will see you before surgery to talk about your medical history and discuss pain relief post-surgery. Before the surgery, you may be asked to take some of your regular medications with a sip of water (regular medications are only to be taken after the anaesthetist has requested that you do so and will be administered by the nursing staff).

How do I get to the operating theatre?

If you are admitted the day before surgery, a porter will come to the unit and transfer you to the anaesthetic bay in theatres. You will be escorted to the theatres by your unit nurse.

If you come to hospital on the day of your surgery, check in at the main reception and you will be directed to the Surgical Admission Centre (SAC). From here, you will be admitted by the nursing staff and allocated a bed to wait until the time of your surgery.

What happens after surgery?

What can I expect in Recovery?

When you wake up in the Recovery unit after your operation, you will have an oxygen mask on your face and a nurse will be continually checking your observations (pulse, blood pressure etc). There will be a dressing over the surgical site with possibly one or two drains in place to remove any excess blood and fluid from the operation site. Calf compressors will be around your legs, pumping air intermittently. This device promotes circulation of blood in the legs to reduce the risk of blood clots and will remain in place for 24 hours. When you have sufficiently recovered, a nurse and theatre porter will take you to the Orthopaedic Unit.

What can I expect in the Orthopaedic Unit?

Pulse, blood pressure and breathing rate will be checked hourly during the post-operative period. Oxygen will continue to be given for the first 24 hours (if on Patient Controlled Analgesia, you will have oxygen for the duration of the infusion). An intravenous drip will administer fluids and medications for the next 24-48 hours. The nurse will also carry out limb observations to check circulation.

What will I get for pain relief?

During surgery nerve endings are cut or bruised. When this occurs, a message is sent along the nerves to the spine and brain and is interpreted as pain. There are ways to help control the possible pain. For the first 24 hours, pain relief will be either one or a combination of these medications: - oral opioids, intravenous opioids via Patient Controlled Analgesia (PCA) delivery, spinal block or local block via a Pain Buster device. Your anaesthetist will discuss the type of pain relief that you will receive.

For further information refer to Appendix 3 – Patient Controlled Analgesia (PCA) for Pain Management.

Why will I be asked to score my pain?

To provide adequate pain relief, it is important to tell the nurse when you have pain. Adequate pain relief will help you to move and perform exercises effectively, speed your recovery and improve your ability to rest.

How will nausea be controlled?

Anaesthetics and pain relieving medications may cause nausea. Effective anti-nausea medications are available so it is important to ask for them if needed. Avoiding or controlling nausea will help in achieving a well-balanced diet necessary to promote faster healing and improve tolerance to exercise. Anti-nausea medication can be given in conjunction with pain relieving medications.

Will I get antibiotics?

In line with best practice, Antimicrobial Stewartship (AMS), you will receive antibiotics via your intravenous drip. This usually will be one dose given at the commencement of surgery and you may receive three more doses in the unit. This may vary depending on your pre-existing conditions.

Why do I need blood thinning medication?

Blood thinners help to prevent deep vein thrombosis (DVT) or blood clots. This medication will be given orally or as an injection after your surgery and will continue until discharge. Your surgeon will ask that you continue on blood thinning medication, either injections or tablets for a period after you are discharged. The type of medication will depend on your surgeon's preference.

For further information refer to Appendix 4 - Blood Clots, Reducing your risk or go to https://www.nhmrc.gov.au/about-us/publications/blood-clots-reducing-your-risk#block-views-block-file-attachments-content-block-1

How will I get nutrition?

When you return to the unit after your operation, you can have ice chips and sips of water as tolerated. Please tell the nursing staff if you feel nauseated. Each person reacts differently to anaesthetics so if you are feeling well and have no nausea, you can start a light diet. Otherwise, your nurse may suggest taking clear fluids until you are able to tolerate food.

What about personal care and hygiene?

After surgery, you will be given a wash in bed and you may brush your teeth if you wish. Your nurse will assist you.

How do I pass urine?

A tube (catheter) to drain urine from your bladder may have been inserted. Monitoring urine output enables the medical staff to see if you are hydrated and this may reflect in your blood pressure. Catheters usually remain in for the first 24 hours after surgery unless ordered otherwise by your surgeon.

What happens with my wound?

A large dressing (occlusive dressing) will cover the wound site. These are usually left intact unless there is evidence of active bleeding under the dressing. A small amount of bleeding is considered normal.

If the wound site remains clean, the dressing should stay in place for at least two weeks. If you go home directly after your stay and not to rehabilitation, then your surgeon will remove the dressing at your follow up appointment. If you go to rehabilitation, the nurses will remove the dressing before you are discharged from the rehabilitation hospital.

Some surgeons may use a new type of dressing called Prevena or PICO after surgery. These dressings create a vacuum pressure between your skin and the dressing pad. This helps the suture line to dry which aides in the healing of the wound. Your surgeon will decide at the time of surgery which type of dressing will be used.

On some occasions your surgeon may need to insert a drain at the operation site to remove any blood which may have collected under the wound. If this is done during your procedure, the drain will usually be removed the following day.

When will I be active and mobile?

Early mobilisation is encouraged since moving will help with better blood flow to the lower limb. This will help in preventing deep vein thrombosis (DVTs) or blood clots. See Appendix 4 for more details.

Will I see a physiotherapist?

Advancements in surgical techniques means that you may be able to mobilise once you return to the unit. Our physiotherapist will see you after your surgery and will show you how to carry out hip or knee exercises, deep breathing and coughing exercises which need to be done every hour.

Keeping you Safe

It's important to avoid falls so here are some tip for Falls Prevention Safety:

- A nurse call button is available if you need assistance

- Make use of the hand rails in the bathroom
- Remember the advice from nurses and physiotherapists about safe mobility
- Don't get up too quickly from bed or a chair, especially after having an anaesthetic
- Be aware of the location of lighting and switches in your room and bathroom
- Keep clutter in your room to a minimum and ask family to collect unnecessary items
- Take your time to attend to activities of daily living.

See Appendix 5 – Preventing Falls

Care after Surgery

Here are the treatments and observations that you can expect in the unit after surgery:

- A blood test will be taken in the morning to check blood count. If your blood count is low, a blood transfusion may be required
- Blood pressure, pulse, temperature and oxygen levels will be checked every four hours and more often if blood transfusion is required
- Oxygen may continue to be required if you have a PCA or epidural. Otherwise oxygen can be removed, if levels are satisfactory
- Once pathology results have come back with results within normal limits and you do not feel nauseous, your intravenous drip will be removed
- Calf compressors may be removed and TED stockings (compression stockings) will remain. Heel booties should also remain to prevent pressure sores.

What medications will I get after surgery?

- Pain relief will continue. If you have a PCA and/or epidural, it may stay in on the first day after surgery. You may also receive some oral pain medication to control pain and inflammation. These tablets work well with the pain relief infusion to keep you as comfortable as possible
- If you have a regional or spinal block, oral medication will be given to control your pain. There are many different types of tablets that can be used to control pain and inflammation
- Antibiotics may be given through your drip
- Nausea medication can also be administered through the drip if required. Please tell nursing staff if you feel nauseated
- A small injection may be administered in the abdomen to help prevent blood clots.

How will I get nutrition?

As you recover, you will progress from fluids to a light diet.

What about personal care and hygiene?

Nurses will assist you with hygiene and personal care in the first days of recovery.

When will my catheter be removed?

Your catheter will usually be removed on the first day after surgery. Removing the catheter early reduces the risk of urinary infections which may hinder recovery.

How do I keep my bowels healthy?

Constipation is a common side effect from the use of opioids. Your nurse will ask daily if your bowels are opening and will offer laxatives to prevent the discomfort of constipation.

Care of your wound

Dressings will remain intact unless there is a need to change such as bleeding. Drains may be removed on the first day after surgery in accordance with your surgeon's orders. At the time of drain removal, your dressing will be changed to the type of dressing that your surgeon prefers.

Getting moving with our Physiotherapists

Physiotherapists will meet with you and help you to get out of bed with the assistance of a Forearm Support Frame (FASF). Early mobilisation will help reduce the risk of blood clots and encourage you to breathe deeply. Anaesthetics given during surgery can sometimes cause the lobes of the lung to collapse, so deep breathing exercises will help to open the lungs and allow a good flow of oxygen which will help with your recovery.

Our physiotherapy team conducts two group exercise sessions each day, giving you the opportunity to participate and regain your ability to move. These sessions are designed to help strengthen the muscles that may have been damaged during your surgery.

For tips from our physiotherapists on exercises and techniques to improve your movement see Appendix 6 – Exercises after Total Knee Replacement and Appendix 7 – Exercises after Total Hip Replacement.

Getting moving with the nursing team

Your nurses will continue assisting you to increase your movements until you have built up strength and confidence to progress by yourself.

Be aware that low blood pressure can be a side effect of anaesthetics, so always let the nurses know how you are feeling so they can monitor you and prevent any likelihood of fainting.

Soft tissue that may have been damaged during surgery will cause swelling which can be painful and reduces the range of motion of the operated limb. To achieve good pain control and improve the range of motion, nurses can supply you with ice packs at regular intervals. You should also ask for icepacks when needed especially after a physiotherapy session.

Continuation of care after surgery

For the remainder of your stay, the nursing and physiotherapy teams will continue to assess your progress. If you have pre-existing medical concerns, your surgeon may have already arranged or may request that you be reviewed by a Medical Physician. Also, if any medical concerns arise during your stay, a medical review with a Physician will be arranged. Nurses caring for you will continue to monitor your vital signs and are always in contact with your surgeon to inform them of any changes in your condition.

Medications

Medicines are an important part of your recovery and during your stay, one of our pharmacists will visit if you are taking multiple medications. This services is available to ensure that you understand your medication regime after surgery and when you go home.

Your blood thinning medications will continue during your stay. If you go home with medicine that is injected, your nurse will show you how to give them to yourself or show your spouse or partner how to administer.

It's important to ensure that pain is well controlled. By the time you are ready to go home, your pain should be well controlled and the need for medication will be reducing. It will take time to recover fully so do not stop taking pain medicine too soon. Your body will tell you when it's time to stop. If you have any questions about your pain medication, please talk with your nurse.

Hygiene and personal care

Your nurses will assist with all personal care needs in the early days after recovery. You will find that towards the end of your stay that you will become relatively independent and require minimal assistance with showering and getting dressed.

Healthy bladder and bowel movements

Before you go home, your bladder and bowel functions should be back to near your normal. Again, remember that opioids can cause constipation and this may make you feel uncomfortable. It is strongly recommended to take some form of laxatives whilst you are still on pain medications. Constipation may also cause issues with passing urine with some people. If this concerns you, please talk to your nurse.

Caring for your wound

Your wound will be dressed with an occlusive dressing which was applied in theatres under sterile conditions after surgery. These dressings can stay on for up to 14 days before needing removal. If you go home from the hospital, your surgeon will usually make a time to review you when the dressing is to be removed. If you are unable to see your surgeon, make an appointment with your General Practitioner to remove the dressing. If the wound is healed, another dressing will not need to be reapplied.

Preparing for discharge

During your stay at Norwest your home Rehabilitation Program will be organised where you will receive physiotherapy services in the comfort of your own home with the added benefit of the support and motivation of your family.

Any information regarding equipment will be addressed at this time to allow for a smooth transition from hospital to home.

In certain circumstance where you will need extra support, rehabilitation may be considered in consultation with your surgeon, the physiotherapist and nursing staff.

Our discharge time is at 10.00am so please arrange for someone to be available to take you home.

Prevention of Complications

Preventing deep vein thrombosis

Deep vein thrombosis (DVT) may occur when blood flow becomes sluggish within the veins of the lower limbs, leading to clot formation (thrombosis). Symptoms of a DVT may include pain, redness and/or swelling in the lower leg. Here are ways to reduce the risk of developing a DVT:

- Start moving soon after surgery
- Do lower limb (foot & ankle) exercises
- Wear anti-thrombotic support stockings (TEDs), depending on your surgeon's preference
- Anticoagulant medication (tablets and/or injections), depending on your surgeon's preference
- Calf and Thigh Compression Pumps which rhythmically squeeze calves and thighs to return blood to your heart for up to 24 hours following surgery, as per your surgeon's preferences.

Note: DVTs can occur up to six weeks after your operation, although the risk is highest early. If you are worried in any way that you may have a DVT, please call your GP or surgeon.

Preventing Infections

Infection is a risk with any surgical procedure because it involves the disruption of your main defence against infection, your skin. Follow these steps to reduce your risk of infection:

- Keep your dressing intact
- Take care not to wet your wound until after your clips/sutures (if used) are removed and the wound has closed
- Use of antibiotics as per your surgeon's preference.

Frequently Asked Questions

When can I walk without a stick or crutches?

The most important aspect of walking is to walk without a limp and avoid any bad habits developed before surgery. Unless specified by your surgeon, you may stop using your stick or crutches when you can walk without a limp. If you are seeing a physiotherapist post discharge, they will guide you as to when this is appropriate. Continue to use your aides for at least six weeks, especially when in busy places, on uneven ground or walking long distances

When will the pain go away?

Everyone's pain varies after joint replacement surgery. Therefore the amount of time before the pain goes away will be different for each individual. As a general guide, six weeks following surgery, the pain will be significantly less than when you were discharged. You may still experience pain after an increase in activity like a longer workout than normal or after a session with your physiotherapist or at night. It is important to take pain medication at these times.

How long will I have to take analgesia?

Pain is not the same for everyone after a joint replacement. Your surgeon or GP can guide you as to when to come off analgesia. You should make an appointment to see your GP when you leave hospital to help in reducing your analgesia needs.

Do I need to take anticoagulants (blood thinners) after surgery?

Yes, after any lower limb surgery, the risk of DVTs (blood clots) increases. Your surgeon will either send you home on oral anticoagulants or medication that you will need to inject.

When will the swelling go away?

It can take up to three to four months for swelling to go away and sometimes a little longer following a knee replacement. Continue to use ice packs on your hip/knee and continue to elevate the limb when resting.

How long do I need to wear stockings?

Most surgeons require their patients to wear stockings for up to six weeks after surgery.

When can I return to driving?

Your surgeon will advise when you will be able to drive. Remember though, if you still need analgesia, especially opioids, you will not be permitted to drive a vehicle. Please also check with your insurer.

Can I kneel on my knee?

Some surgeons are happy for you to kneel once the wound has healed but only for short periods. You should clarify this with your surgeon. Be aware that there may be decreased sensation over the wound so be careful not to kneel on anything sharp. You may need to use a kneeling pad. Usually, if you were unable to kneel before surgery, it's unlikely that you will be able to do so after surgery.

Can I rest a towel under my knee?

No, this will cause you to struggle to straighten your leg. It may also affect blood circulation which may increase the risk of blood clots.

When can I lay on my side?

Following a knee replacement, you can lay on your side. Placing a pillow between your legs is recommended for comfort. It's best to lay flat for as long as possible to help with straightening your leg.

Following hip replacement, many surgeons do not allow you to lay on your side until six weeks after your procedure since there is a risk of hip dislocation when you roll over.

Will I set off the security scanner at the airport?

It depends on the sensitivity of the scanner. A knee replacement is more likely to set off the scanner than a hip replacement. You may need to show security the scar as a result of surgery. A letter from your surgeon may not be sufficient.

When can I fly on a plane?

Check with your surgeon. If you do fly, it is recommended that you wear your compression stocking when you fly, especially on long flights.

What should I do if I have to go to the dentist?

It is important that you tell your dentist that you have had a joint replacement. Bacteria may be introduced into your system through the gums if you have major dental work. Antibotics for prophylaxis may be prescribed to prevent infection.

General tips to follow to keep safe

- It is best to use a shower chair in the shower to avoid the risk of slips and falls. Do not use a bath for up to six weeks after surgery. Hand rails in the bathroom will also help you stand after a shower or get up from the toilet. Do not lean forward as this may change your balance and cause a fall
- When getting dressed, sit down and ask for help to put on socks, underwear and pants to reduce the risk of falls
- Avoid twisting and reaching, (especially for hip replacements), always turn and face what you need to get or where you want to go
- Always sit in a sturdy chair with arm rests
- At night, have a night light nearby to reduce the risk of falls or trips
- When getting out if bed, sit on the side for a minute or so to make sure you are awake and alert before getting up to avoid the risk of falls. Opioids and antihypertesive medications may drop your blood pressure in the morning and may cause you to faint and fall
- Keep your living space tidy. Ensure that there is no clutter on the floors and place objects at waist height to avoid leaning and reaching, to reduce the likelihood of trips or falls
- Always wear sturdy supportive shoes with enclosed heals to avoid trips
- Keep a phone handy in case you need to make an emergency call.

If you have any further questions, please speak to your surgeon or give us a call in the Norwest Private Orthopaedic Unit on 02 8882 8522

Appendix 1 - A General Guide to Blood Transfusion

Clinical Excellence Commission

Blood transfusion

A blood transfusion is a procedure where you receive blood through an intravenous cannula (IV) inserted into a vein.

You may need a blood transfusion if your body cannot make parts of your own blood, if your blood cells are not working properly, or if you have lost blood.

It is often possible to reduce or avoid the need for a transfusion.

- Discuss with your health care team the best way to treat anaemia (low number or quality of red blood cells).
- If you are having surgery, discuss with your health care team the need to stop or withhold certain medications, so your risk of bleeding is reduced.
- Your health care team may suggest having your blood collected and returned to you, during some types of major surgery.
- If you do need a transfusion, you should receive only what is needed to relieve your symptoms. For example, once you have received one bag of red blood cells, you should then be reviewed to see if another bag is needed. One bag may be enough.

Parts of blood that may be needed

Red cells carry oxygen to body tissues and organs. They may be given if your levels are low, or you have lost blood.

Platelets help blood to clot and are given to prevent or stop bleeding.

Plasma contains factors that work with platelets to help blood to clot and may be given to prevent or stop bleeding.

Other blood products are given for a wide range of reasons, for example, to improve the immune system or to replace some clotting factors.

For more detailed information on blood transfusion, please visit www.mytransfusion.com.au

If you need a transfusion

You will need to have a blood test to establish your blood group and make sure your type is available.

When you are having your blood test, you should help to check that all the details on the form and the tube are correct and exactly match. This includes your full name spelt correctly and your date of birth.

Risks

Australia has one of the safest blood supplies in the world, however, as with all medical procedures, a blood transfusion is not completely free from risk.

Most common risks of transfusion include:

- Minor reactions including a mild temperature, or skin rash
- Fluid overload, causing breathing difficulties, especially in older patients and those with heart disease.

Other less common risks of transfusion include:

- Receiving blood that is not ‘matched’ to you
- Severe reactions, for example, allergy or acute lung injury
- Transmission of infection, for example, bacteria or viruses.

Consent

Treatment is your choice. Before you are given a transfusion, you should be asked to agree. Use this quick checklist to help you make this choice.

- Do you know why a transfusion has been recommended?
- Have you asked about ways to avoid or reduce transfusion?
- Do you understand the risks?
- Have all your questions been answered?

When you get a transfusion

Before a transfusion, strict checks of your name and date of birth are done again. Two staff members will do this with you. If you need to have more than one bag of blood, or type of blood product, staff will do these checks every time.

Staff will also carefully monitor you for any problems during the transfusion. This means measuring your pulse, blood pressure and temperature at regular times. Most people feel no different during a blood transfusion, but if you feel unwell in any way, tell staff immediately.

You may have a blood transfusion and be able to leave the hospital straight away. Before you leave, speak to staff about what to do if you feel unwell later.

Addressing concerns

If you are worried at any time, it is important that you speak up. Tell the staff of your concerns, because serious medical problems can occur if you are given the wrong blood. This includes:

- If there is any problem when checking your name and date of birth
- If you feel that the checking has not been done correctly
- If you feel unwell at any time during or after the transfusion.

General information

If you need to have more than one transfusion, or you need to have regular transfusions, you will need to have a blood test every time.

If you have not had a test and you need blood very quickly, you can be given a special blood type, until blood matched for you is available.

Identification details must always be checked with another person, such as a support person, family member or another member of staff.

Disclaimer

This fact sheet is for your educational purposes only. It should not be used to guide and/or determine actual treatment choices or decisions. Any such decisions should be made in conjunction with advice from your treating doctor or other health professionals.

About Blood Watch

Blood Watch is a program run by the Clinical Excellence Commission. It aims to improve clinical practice associated with transfusion medicine.

It promotes medical and surgical strategies to manage appropriately both donated blood resources and the patient's own blood, to improve individual patient outcomes.

For further information on the Blood Watch program, please visit http://www.cec.health.nsw.gov.au/programs/blood-watch

Adapted from A General Guide to Blood Transfusion: Information for Patients and Families, Released March 2014, Clinical Excellence Commission 2014. SHPN (CEC) 140070

Appendix 2 – National Joint Replacement Registry
Australian Orthopaedic Association

About the registry

You are about to have an operation on one of your joints. More than 100,000 people have a joint replacement or knee osteotomy operation each year in Australia. Most of these operations are very successful. However, a number of people who have a joint operation may at some time require another operation on that joint. This may occur due to a variety of reasons. For instance, if you have had a joint replacement the most common cause is that the joint replacement has worn out.

How quickly this occurs depends on which of the many different types of artificial joints have been used. For those patients having a knee osteotomy the aim is to delay or prevent the need for having a joint replacement. In order to improve the success of these operations, the Australian Orthopaedic Association set up the National Joint Replacement Registry in 1999. The purpose is to monitor and report on the results of these operations.

This information helps everyone working in the health system to ensure patients get the best treatment possible both now and in the future. Another important Registry role is that it assists hospitals and doctors to locate people in the uncommon event a problem with any medical device used is identified.

To do this it is important for the Registry to record a small amount of information on as many people having these operations as possible. It is also important to record if any subsequent operations have occurred. By analysing this information, it is possible to identify which of the medical devices are working best and the best type of operation for each patient. We are asking you to participate in the Registry, by allowing us to document information relevant to your operation.

Your Involvement - the information we need

The information we require includes your name, date of birth, address, Medicare number, hospital identity number, the name of the hospital and the reason you are having a joint replacement or knee osteotomy. This information is necessary to accurately link you to the medical device inserted as well as linking any following joint surgery you may have, to your previous records. We will also record the day of the operation, which joint was operated on and the type of medical device used. No other personal information is recorded. Government Departments also provide information so that the Registry can check the accuracy of the data and update records to reflect if someone has died.

We will keep your information confidential

Your personal information is confidential and safety measures are in place to protect this information. Your personal information is protected by an Act of Parliament. This means you cannot be identified in any reports produced by the Registry. On occasion, your data may be linked to other government health datasets to further enhance the Registry's ability to improve patient outcomes. Your de-identified data may be used for other research projects and may be shared with national and international collaborators.

How we will collect the information

Although we are asking to record your operation details in the Registry you are not required to do anything. Your surgeon and/or theatre staff will complete the form that contains your personal details at the time of your operation and send it to us. The information will be entered into the secure Registry database which is stored in the South Australian Health & Medical Research Institute, Adelaide, South Australia.

Risks and Benefits - to you

There are no risks to you by having your details in the Registry. The Registry produces general reports on a variety of factors that influence the success of joint operations. The results of joint operations have greatly improved because of this information.

If you don't want to be in the Registry

We understand that not everyone is comfortable about having his or her personal details documented in a registry. If you feel this way and do not want your details recorded, please contact the Manager on 1800 068 419 (freecall) as well as making your decision known to hospital staff. A decision on whether or not you wish to be involved in the Registry does not affect your treatment in any way. If you have any questions, concerns or require further information on the National Joint Replacement Registry please do not hesitate to contact Ms Cindy Turner.

Concerns or complaints related to the data collection process may be directed to the AOANJRR on 1800 068 419 (freecall)

Concerns or complaints related to the data collection process may be directed to the AOANJRR on 1800 068 419 (freecall) or alternatively the Australian Government, Office of the Privacy Commissioner on 1300 363 992

Adapted from National Joint Replacement Registry Patient Information, Australian Orthopaedic Association V3 21012020.

Appendix 3 - Patient Controlled Analgesia (PCA) for Pain

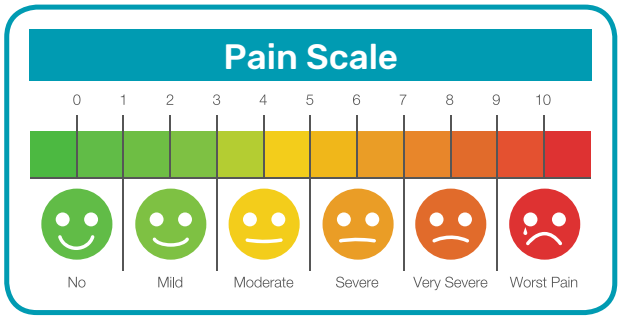
PCA stands for Patient Controlled Analgesia (PCA). This is a locked computerised device that allows you to administer your own regulated amount of pain relieving drug whenever it is needed.

How the PCA works

You will be provided with a handset which has a button. When you press the button and you hear the beep, the pain relieving drug is delivered directly into your vein via an intravenous drip.

It is important that only you press the button. Under no circumstances should relatives or others press the button for you. Nursing staff will not press the button for you.

While the PCA is in use the nursing staff will regularly check your pulse, breathing, blood pressure and the PCA device. You will be asked to rate your pain on a scale of 1 to 10 with 1 being minimal to no pain and 10 being the worst pain you have experienced.



Pain relief after surgery

With effective pain relief after surgery, patients are able to recover more quickly. You will feel more comfortable, your appetite improves and you are able to move around more. Untreated pain can cause complications and slow your recovery time.

Advantages of PCA

- Fast pain relief
- No injections
- No waiting for pain relief required as the drugs enter the vein immediately through your drip

When to use the PCA

The PCA is usually commenced in the Recovery Room after surgery. The dose will be calculated by the anaesthetist and programmed into the machine. When you wake, you will be advised how to use the machine by the nursing staff. If you have attended the Pre Admission Clinic you will have received information on the PCA.

You should not wait for the pain to become severe before pressing the button. Once the button has been pressed, it may take a few minutes before the pain is relieved. If the pain is not relieved, press it again.

Side effects

There are occasionally side effects with pain relief medication such as nausea, itching and over sedation, but not everyone will experience these. You cannot overdose as the machine has a lockout period during which time the machine will not allow further administration to occur.

Any side effects should be reported to nursing staff.

PCA and other medication

Additional analgesic medication may be prescribed by the anaesthetist or surgeon.

Stopping the PCA

Everyone has different needs for pain relief after surgery. As wound pain reduces the need to use the PCA decreases.

The decision to stop the PCA is made by the anaesthetist or surgeon after discussions with you and the nursing staff.

When the PCA is stopped, other pain relieving medication will be prescribed to ensure continued pain management.

Appendix 4 - Blood Clots, Reducing your risk

National Health and Medical Research Council (NHMRC)

If you are in hospital—particularly for a major operation or a serious injury or illness—your risk of having a blood clot in your leg or your lung is much higher than usual.

There are ways to reduce this risk and prevent blood clots. This pamphlet explains why you are more likely to develop a blood clot when you are in hospital, why this matters, and what can be done to reduce your risk.

Why are blood clots a problem?

A blood clot that forms in a deep vein in the muscles of the leg is known as a deep vein thrombosis or DVT. The clot can partly or totally block blood flow.

Most blood clots form in a vein in the calf. They are less common in the thigh, and rare in other parts of the body.

Venous thromboembolism, or VTE, describes the whole process by which clots form and travel through the blood stream. 'Venous' means to do with the veins. This is different from arterial thrombosis which can cause stroke or heart attack.

When a blood clot forms in a leg vein, it usually remains stuck to the vein wall. Sometimes, however, one of two things may happen:

1. Part of the blood clot may break off and travel in the blood to the lungs. Here it may block an artery and cut off blood supply. This dangerous condition is known as a **pulmonary embolus,** or PE. A large clot in the lung is very serious and can be life-threatening.
2. If the blood clot in the leg is not treated, it may lead to long-term symptoms such as pain or discomfort, swelling, rashes or—in severe cases—a skin ulcer. This is called **post-thrombotic syndrome**. It happens because the vein is blocked, and can therefore damage the leg tissues.

How are blood clots prevented?

Two approaches are used: medicines that interfere with the clotting process, also known as anti-clotting medicine or anticoagulants. These are commonly called blood thinners but they do not thin the blood. Mechanical devices work by increasing the pressure within the leg. Often anti-clotting medicines and mechanical devices are used together, but not always.

Anti-clotting medicines

Anti-clotting medicines work by reducing the blood's tendency to clot. This may also increase the risk of bleeding. The aim is to get the dose just right so the blood will not clot too easily, and bleeding is less likely.

Some people cannot take anti-clotting medicines if they already have a condition that makes them bleed more easily than normal. Anti-clotting medicines can be injected just under the skin. Others are taken as a tablet. You may be given an anti-clotting medicine for a few days or up to a few weeks, depending on your particular operation or medical condition. Check with your medical team about how long you'll need to take your medicine for.

What medicines are used?

The anti-clotting medicines used will depend on your operation or condition; your doctor will recommend the best option.

Anti-clotting medicines that are injected include low molecular weight heparin (LMWH), unfractionated heparin (UFH), fondaparinux or danaparoid.

Anti-clotting medicines taken as tablets include rivaroxaban, dabigatran etexilate, aspirin or warfarin. Make sure you tell your health care team if you are already taking one of these medicines prior to going into hospital.

How are blood clots prevented?

Stay mobile and active

Movement of the legs stimulates blood flow, so you should try to get moving as soon as possible. The hospital staff may also:

- give you gentle exercises for your feet and legs while you are in bed
- get you up and walking as soon as possible.

This helps to keep the blood flowing in your leg veins. It's important to do these exercises and walk as often as your doctor, nurse or physiotherapist advises.

Mechanical devices

Mechanical devices help to keep the blood moving through the deep veins of the leg by squeezing them. There are three types:

Graduated compression stockings are elasticised stockings, either over the whole leg or just the calf. It is important to have stockings that are professionally fitted to your size. Sizing can be done by your health professional. Graduated compression stockings should be worn until fully mobile.

Intermittent pneumatic compression (IPC) involves a garment around the leg that is regularly inflated and deflated, to squeeze the leg. It may be over the whole leg or just the calf.

Venous foot pumps have a pad under the foot that is rapidly inflated and deflated every few seconds. This stimulates blood flow in the sole of the foot. The pad is held in place by a slipper.

Stockings or IPC can cause rashes or irritate the skin so they need to be removed at least once a day to check the skin. Some people find stockings uncomfortable, especially the thigh length ones, as they can bunch up.

Why is the risk of blood clots high in hospital?

There are two main reasons:

1. Not moving increases your risk of blood clots. Normally blood flows quickly through veins without clotting. In the legs, muscle movements help to push the blood by squeezing the veins. But if you are not walking around for some time—for example, in bed in hospital—blood flow can become sluggish and allow a clot to form. This is also why on a long air flight it is suggested you do some leg and foot exercises.
2. The body protects itself from bleeding. When you have surgery or an injury, the body stimulates the blood to clot more easily, to prevent blood loss. But this also increases the risk of unwanted clotting—that is, a DVT or PE.

Who is most at risk?

The risk is highest in people who have:

- major joint surgery (e.g. hip or knee replacement)
- major surgery to the abdomen, hips, chest or legs
- major surgery for cancer
- severe physical injury
- serious acute illness, in part because you must remain in bed for a time. These illnesses include heart attack, heart failure, stroke, spinal cord injury, severe infection, cancer, and chronic obstructive pulmonary disease (COPD).

Talk to your medical team if you think you may be at risk.

Are there other risk factors?

Blood clots are also more likely in:

- people who have had a clot in a vein in the past
- people with active cancer
- people over 40 years—the risk increases as you get older
- prolonged severe immobility (prolonged bed rest, immobilisation in a plaster cast or brace or prolonged travel resulting in limited movement)
- women who are pregnant or have recently given birth—pregnancy (like surgery and injury) stimulates clotting to prevent blood loss
- people who are overweight or obese
- women who are using hormone replacement therapy (HRT) or the contraceptive pill
- people with a condition called thrombophilia, which makes the blood clot more easily than normal.

When you go home from hospital

If you have been using anti-clotting medicines or a mechanical device in hospital, you may be asked to continue using these at home. Ask your pharmacist for the consumer medicines information leaflet if you have not received it with your discharge medication. It's important to follow your medical team's instructions to reduce your risk of developing a clot.

If you have any of the following symptoms in hospital or after you return home, call your doctor or go to the nearest emergency department straight away:

- redness, pain or swelling in your leg
- difficulty breathing, faintness
- coughing up blood
- pain in your lungs or chest.

This information is based on the National Health and Medical Research Council's Clinical Practice Guideline for the Prevention of Venous Thromboembolism in People Admitted to Australian Hospitals. This brochure and the guideline on which it is based are available from www.nhmrc.gov.au.

Adapted from Blood Clots Reducing your risk , National Health and Medical Research December 2010

Appendix 5 – Preventing Falls

Let's work together to prevent hospital falls.

When in hospital, all adults are at risk of falls. Please consider these suggestions to prevent falling.

Please use the call bell

You will be shown how to use your call bell. It is there for your safety, so please use it if you need assistance or supervision.

Walking, balancing and exercise

- If you have a walking stick, crutches or frame, keep within easy reach and use every time you walk.
- Don't rely on furniture for support.
- Take your time when turning or multi-tasking.
- Take special care with steps, stairs, slopes, ramps and uneven ground.
- Please use the handrail for support.
- Gently walk when advised by your clinician.
- If prescribed, do your rehabilitation exercises as shown by your therapist or nurse.

Bathroom and toilet

- Many falls occur in the bathroom, so use your call bell and wait for assistance, if needed.
- Don't rush.
- Be extra careful with slippery surfaces or if there is water on the floor.

Footwear

Do wear:

- Properly fitting shoes or slippers
- Shoes with laces or velcro

Don't wear:

- Tight shoes
- Worn shoes
- Loose shoes
- High heels
- Slippery soles
- Socks alone

Mental state

- If you experience confusion or impaired cognition, you may benefit from extra assistance. Please use your call bell and wait for help.
- Family and carers can assist staff by alerting them if they notice a change in their relative's mental state.

Who to talk to

Our aim is to help you to prevent falls. If you have any questions, please speak to a staff member.

Handy hints to prevent falls

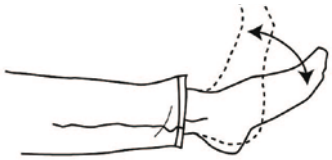
- Take your time when getting up as you may feel dizzy.
- Let staff know if you feel unwell or unsteady on your feet.
- Some conditions or medications can make you feel light-headed, dizzy or unsteady. If so, please take special care.
- If you have glasses, please use them.
- Only do one task at a time.
- Please use your call bell if you require assistance.

Appendix 6 – Exercises after total knee replacement

Exercise is an important part of recovery after total knee replacement surgery to help you walk, climb stairs, and return to other normal activities more quickly. Follow these exercises as instructed by your physiotherapist.

Ankle Pumps

With operated leg relaxed, gently flex and extend ankle. Move through full range of motion. Avoid pain. Repeat 20 - 30 times every hour.

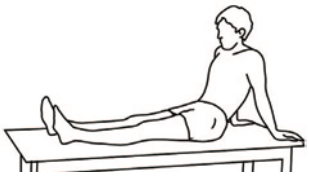


Knee Push Downs

Tighten the muscles on top of your thigh by pushing knee down into surface.

Hold for 5 seconds. Repeat 20 times.

Complete 3 - 4 sessions per day.



Heel Slides

Slide heel of operated leg towards buttocks until a gentle stretch is felt. Relax.

Hold for 5 seconds. Repeat 10 times.

Complete 3 - 4 sessions per day.

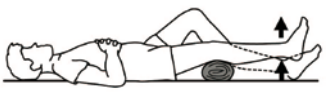
Heel Lifts over Towel

With operated knee over a towel roll, straighten knee by tightening the muscles at the front of thigh. Keep bottom of knee on towel roll.

Repeat 10 times.

Complete 3 - 4 sessions per day.

NB: please remove towel when finished exercise.



Knee Bending in Chair

Gently bend operated leg back with the other leg until a stretch is felt.

Hold for 5 seconds. Relax. Repeat 10 times

Complete 3 - 4 sessions per day.

Knee Extensions (seated)

Sit in chair or end of bed. Start with bent knee and lift your foot so your leg is fully straight.

Repeat 20 times.

Complete 3 - 4 sessions per day.

Knee Bending in Chair

Sit on the edge of the chair, feet flat on the floor. Bend the operated knee as much as you can. Stand upright, extending knees fully. Use arm rests of chair if needed.

Repeat 10 times

Complete 3 - 4 sessions per day.

Hamstring Stretch

Gently reach your hands towards your toes until you feel a stretch down the back of your legs. Try keeping your legs as straight as possible.

Hold for 30 seconds. Repeat 4 times.

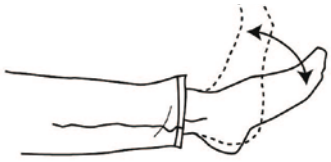
Complete 3 - 4 sessions per day.

Appendix 7 – Exercises after total hip replacement

Exercise is an important part of recovery after total hip replacement surgery to help you walk, climb stairs, and return to other normal activities more quickly. Follow these exercises as instructed by your physiotherapist.

Ankle Pumps

With operated leg relaxed, gently flex and extend ankle. Move through full range of motion. Avoid pain. Repeat 20 - 30 times every hour.

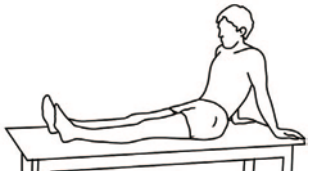


Knee Push Downs

Tighten the muscles on top of your thigh by pushing knee down into surface.

Hold for 5 seconds. Repeat 20 times.

Complete 3 - 4 sessions per day.



Heel Slides

Slide heel of operated leg towards buttocks until a gentle stretch is felt. Relax.

Hold for 5 seconds. Repeat 10 times.

Complete 3 - 4 sessions per day.

Leg Side Slides in Lying

Slide operated leg out to side and return to the centre. Keep knees and toes straight.

Repeat 10 times.

Complete 3 - 4 sessions per day.

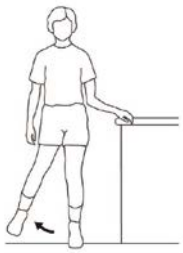
Leg to the Side in Standing

Hold onto chair or walking frame for support.

Take your operated leg out to side, keeping your knee straight, then gently back to centre.

Repeat 10 times every hour.

Complete 3 - 4 sessions per day.



Hip Extensions in Standing

Hold onto a chair or walking frame for support.

Move your operated leg backwards, keeping your knee straight or slightly bent, then gently back to centre.

Repeat 10 times.

Complete 3 - 4 sessions per day.

Knee Lifts in Standing

Hold onto a chair or walking frame for support.

Slowly raise operated side knee towards chest.

Keep your back straight. Then lower leg to starting position.

Repeat 10 times.

Complete 3 - 4 sessions per day.

Sit to Stand

Sit on the edge of the chair, feet flat on the floor.

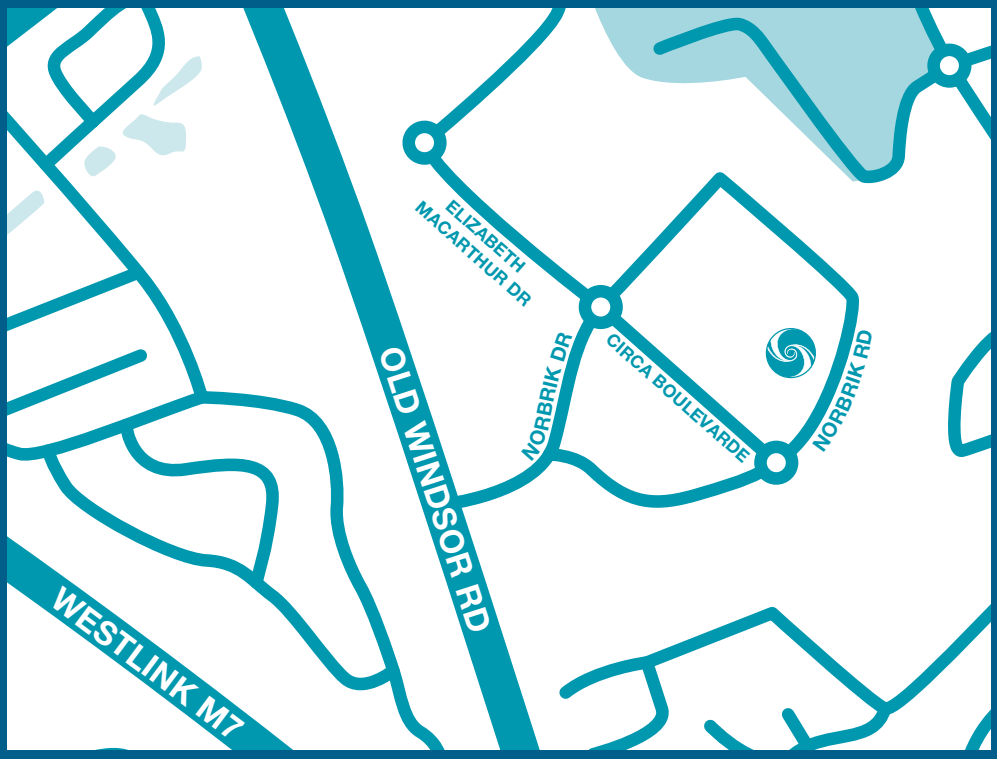
Stand upright, extending knees fully.

Use arm rests of chair if needed.

Repeat 10 times.

Complete 3 - 4 sessions per day.

Notes:



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