

# ADVANSYD PATHWAY

Advanced Recovery for joint replacements in Northern Sydney



## *Education Booklet:*

## *Your guide to preparation and recovery*



**Health**  
Northern Sydney  
Local Health District



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## ***Introduction***

This booklet will provide you with some information about your joint replacement surgery, and what you need to do before, during and after surgery. We recommend you refer to this booklet throughout your journey.

# Step 1. Surgeon Consultation

## Key points:

- **Having a joint replacement involves major surgery which should be discussed with your orthopaedic surgeon. You should consider the risks and benefits for you as an individual.**
- **As part of the Northern Sydney Local Health District (NSLHD) special program for joint replacements the 'AdvaNSYD Program' (pronounced 'advanced') you will need to attend a number of appointments and you are responsible for your preparation and planning before surgery.**

## Joint replacement surgery

The most common reasons for having joint replacement surgery are:

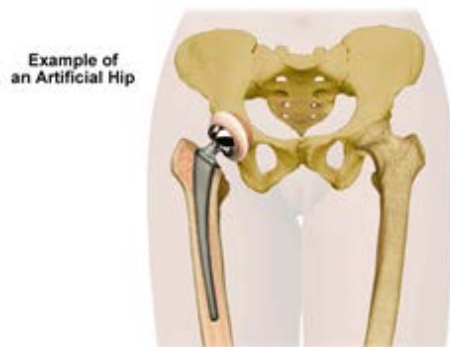
- Osteoarthritis- Osteoarthritis is a painful and stiff joint that often has inflammation
- A fracture- A fracture is normally after someone has fallen, it requires emergency surgery
- Avascular necrosis- Avascular necrosis is when there is a problem with the blood supply to the joint, it requires urgent surgery to prevent damage.

If you have osteoarthritis, strengthening your muscles (for example, with hydrotherapy or exercises), weight-loss and anti-inflammatory medicine, can help in relieving pain and improving movement. However, if these treatments have been comprehensively tried but have not been effective, a joint replacement may help in relieving your pain and improving movement.

Joint replacement surgery involves making an incision (cut) and replacing the joint surfaces

with artificial ones called prostheses. Your surgeon will select the most suitable type of prosthesis for you. The surgery itself takes approximately two hours. **Having a joint replacement involves major surgery which should be discussed with your orthopaedic surgeon.** You should consider the risks and benefits for you as an individual.

Hip replacement:



Knee replacement:



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In the first few weeks you will have some difficulty moving the joint and pain. It can take up to four months to feel like you have recovered from your joint replacement surgery. Your joint will probably continue to slowly improve for 12-18 months after surgery.

# Risks of having joint replacement surgery

There are risks involved with surgery; your surgeon should have talked to you about these risks. Please see page 29 for more information on risks and complications from surgery.

## The next steps

After you complete your 'Request for Admission' form and return it to the hospital, you will be placed on the waitlist, allocated a date to attend the compulsory education session "Joint Class" and invited to attend the Osteoarthritis Chronic Care program (OACCP).

## Things to consider:

- What is the reason you want to have surgery?
- How will you get to and from the hospital for 'Joint Class' and other appointments?
- Which family members or friends can help you in this health journey? Can you talk to them now and invite them to 'Joint Class'?

### Write your notes and questions here:

# Checklist (to complete before Step 2. 'Joint Class')

- I have a clear goal for having surgery. This should be an activity or task e.g. walking to the shops, playing golf. My goal is:

- I have read and understood the Patient Information Sheet, including the key decisions from the surgeons. Please note these decisions here:

I will have:

- hip precautions  
(see page 28 'hip precautions')
- no hip precautions
- N/A (knee replacement)

After hospital I:

- Will go directly home after surgery  
(unlikely need inpatient rehabilitation)

# Step 2. Joint Class

## Key points:

- **You need to prepare yourself for surgery by seeing your GP and managing your weight, blood pressure, diabetes and stopping smoking.**
- **You need to plan for going home after your surgery- this includes transport, shopping, cooking, cleaning your house, and hiring/purchasing equipment.**
- **It is helpful to have a family or friend who can support you in the first 1-2 weeks after surgery with these activities.**

This is a compulsory education session at the hospital. You will be contacted with details on when you should attend.

<b>Appointment</b>	Joint Class
<b>Date/ Time</b>	
<b>Location</b>	
<b>Transport plan</b>	

## What to bring:

- Family or friend that may help you prepare for surgery/at home after surgery
- This booklet.

## Things to consider

- Are there any major barriers to returning to your home after surgery (e.g. many stairs, boat access, steep driveway etc)? Can you get advice from staff now?

**Write your notes from the presentation and questions here:**

## Checklist (the first things to do after Joint Class)

- I have booked appointments with Specialists I need to see ,e.g. Cardiologist, to get clearances before surgery
- I have seen my GP and we have a plan for what I need to do to manage and improve my health before surgery
- My GP has done screening and tests to check if I have:
  - Obstructive sleep apnoea, e.g. with the 'StopBang OSA questionnaire' and/or sleep test
  - Anaemia or iron deficiency, e.g. with blood tests
  - Heart disease, e.g. with an ECG or echo.
- I have accepted the invitation to the Osteoarthritis Chronic Care Program (if applicable).
- I have my Health summary and medication list



# Step 3. Waitlist time

## Key points:

- **This is not 'rest' time; this is time to ensure you are in the best physical condition possible before your surgery. This decreases your risk of complications and contributes to improved outcomes of your surgery.**
- **There are certain issues that will mean your surgery will be cancelled if you do not address them- these include looking after your skin, maintaining good haemoglobin and iron levels, and treating obstructive sleep apnoea and heart disease, excessive consumption of alcohol.**
- **The Osteoarthritis Chronic Care Program can help you self-manage your health problems more effectively.**
- **You need to consider your home and what support you have available after surgery. If you can borrow equipment, this could save on hiring/purchasing equipment later.**

Appointment	Date/ Time	Location	Transport plan
GP screening appointment			
GP follow up appointment/s			
Specialist appointment/s if required			
Other appointment/s if required			

## Managing your health with your GP pre-surgery

You need to be actively getting ready for your surgery. There are many things that you can be doing to help reduce the risk of complications and help to make things easier for yourself after your surgery. This includes:

- **Stopping smoking**- smoking can cause delayed wound healing; this can lead to infection, which is a major cause of people needing revision surgery.
- **Look after your skin**- ensure that any skin conditions are managed. If you have any cuts, grazes or irritations on the day of your surgery, we will have to cancel your surgery. This is most important in the weeks coming up to your surgery; however you might need to plan for longer than this.
- **Eat a healthy diet**- a healthy diet helps your immune system to be strong which will help your body to recover quickly after surgery.

- **Lose weight (or maintain a healthy weight)**- Obesity is a significant risk factor for wound infection and blood loss during surgery. Being underweight is also a significant risk factor for complications. Talk to your GP about your 'BMI' and how you can achieve a healthy weight.
- **Strengthen your muscles**- your muscles are essential to support your joint and make sure you can walk safely and do the activities you enjoy. You will lose strength from having surgery, so it's even more important for them to start strong. This makes it easier to regain their strength. Muscles strengthening takes at least 6 weeks, but the earlier you can start, the better.
- **Maintaining good Iron and Haemoglobin levels**- Iron and Haemoglobin are parts of your blood that help carry oxygen to the body. This keeps you healthy after surgery. If your Iron and Haemoglobin levels are low, you might need supplements for many weeks prior to surgery to avoid your surgery being cancelled.
- **Checking if you have obstructive sleep apnoea and getting treatment**- many people don't realise they have obstructive sleep apnoea. Sleep apnoea is a major risk for complications with anaesthetics.
- **Check if you have a heart condition and get treatment**- some people have a heart condition they are not aware of. Getting an ECG can pick up on any undiagnosed issues. It's important that any heart conditions are 'actively managed' and treated early.
- **Manage your diabetes**- if you have diabetes, a blood glucose level of >7 (HbA1c) increases the risk of wound infection and other complications. You should work with you GP and endocrinologists to ensure your diabetes is well controlled pre-surgery.
- **Mental health**- Major surgery like joint replacement can exacerbate pre-existing mental health conditions (e.g. anxiety, depression), it is important that these are actively managed.
- **Addictive substances**- If you regularly consumer alcohol or other drugs, withdrawal while in hospital can cause liver and kidney problems and confusion.

It is important that you consult your General Practitioner (GP) about how you can manage and improve your health. Sometimes you will need to see a specialist as well, which can take time, so it's important to make arrangements like booking appointments early.

## Osteoarthritis Chronic Care Program (OACCP)

This is a specially designed program that aims to:

1. Ensure people have been able to have comprehensive treatment for osteoarthritis- sometimes with comprehensive treatment people no longer require joint replacement.
2. Ensure people are fit and ready for surgery.

The program has a range of health professionals who can help enable you to self-manage your injured joint and other related health problems more effectively.

**Please contact 9463 1860 to arrange an appointment.**

# Step 3 'a': Physio and OT

## Key points:

- **When you attend the Osteoarthritis Chronic Care Program, you will see a Physiotherapist and an Occupational Therapist.**
- **A physio will check how you are walking and tell you what walking aid you need, they will show you how to use it and ask you to hire/purchase it to practice at home.**
- **An OT will check about your home, tell you what equipment you need and ask you to hire/purchase it before surgery. They might visit your home if required.**

## What to bring:

- Photos of your home including: (photos on smart phones are acceptable)
  - Entrance
  - Toilet
  - Shower
  - Dining chairs and lounge chairs
  - Bed set up
  - Any equipment you have
- Your current walking aide

## Walking and exercises

The physio will check your walking and discuss with you what walking aide you might need for when you leave hospital. You should plan where/when to hire the equipment so you have time to practice walking with it before surgery. You might also need to practice going up and down stairs e.g. with crutches. You should also do the exercises in this book to ensure your muscles are strong before surgery.

You will probably talk about your 'Physio hospital goal'. This is your personalised goal for when you are in hospital that you can achieve by following the physio exercises. Some examples of 'Physio hospital goals' are:

- I can walk up and down 10 steps with crutches without assistance.
- I can walk 20meters with my walker with some assistance to stand up.

The walking aid that I may need for after surgery is:

# Managing at home after surgery

Most people go directly home after surgery. The occupational therapist will discuss with you what equipment you might need for your home. You should plan where/when to hire the equipment and ensure you have it ready before your surgery.

You will probably talk about your 'OT hospital goal'. This is your personalised goal for when you are in hospital that you can achieve by following the OT advice on increasing your ability to do certain tasks. Some examples of 'OT hospital goals' are:

- I can shower by myself by using the shower chair.
- I can get in and out of the car with some assistance.

Equipment that I need for home after surgery is:

# Preparing your home before surgery

It is important to prepare yourself and your house for when you go home. You may need to consider your hip precautions in completing these activities if you have had a hip replacement.

Personal activities of daily living (ADL's)	Things to consider
Getting into and around your house	Do you have stairs at the front or inside your house? Where are the most used areas and how easy is it to walk between them with a frame or crutches? Could you move your bed or other items for easy access? Can you stay at a house with easier access?
Dressing/Undressing	You may need to sit down, have difficulty with balance, or you may become more tired easily. You may find it difficult to reach your feet with your wound.
Showering/Drying	Think about the space in your bathroom and using a walking aid on a wet floor. Think about getting into and out of your shower. Is there a hob/step?
Toileting	Habits may change as a result of medication. Also, getting on/off the toilet can be more difficult.
Eating	Your appetite may change after surgery, but it is important to plan adequate nutrition to optimise your recovery. Think about where you eat and how you will carry it if using a walking aid.

Drinking	Consider how you access and transport your drink and where you drink it. Using a walking aid may require a different technique with transporting fluids.
<b>Domestic tasks</b>	<b>Things to consider</b>
Cooking	Think about how you will be getting items in/out of the fridge, emptying the dishwasher, filling up your kettle, whilst using a walking aid. Consider preparing some meals and freezing them prior to admission.
Laundry	How will you manage loading/unloading your washing machine, carrying and hanging out your washing?
Cleaning	Who could do the vacuuming whilst you are using a walking aid, are services required longer term?
Shopping	Consider how could you do your shopping? How will you load and unload the car with a walking aid? Consider setting up online shopping and home delivery before you come to hospital.
Transport	Do you have friends or family that can take you to appointments? It could be difficult or painful to catch a bus initially. Remember- no driving for 6 weeks, or until surgeon clearance.
Paying bills	How do you pay your bills? Could this be set up on-line?

## Thinking about equipment:

Closer to your surgery, the physio and the occupational therapist will talk to you about your specific equipment requirements. You will be asked to hire/purchase them before surgery. While you are on the waitlist, you might consider checking with friends if they have equipment they could lend you.

### The following items might be recommended to you:

- 1. Walking aid:** If you walk without a walking aid now, or with a walking stick, you will probably leave hospital using crutches. These are examples of crutches: Axillar crutches (armpit), and Canadian crutches (cuff).



If you currently use a walking frame, you will probably leave hospital on this walking frame. However, if you use a walking stick now, you might need one of these frames. These are examples of frames used: Rollator frame, pick-up frame, wheeled walker, forearm support frame.



## 2. Bathroom and home equipment:

To ensure you are steady and do not fall in the shower after surgery, it is helpful to sit down. A shower chair, shower stool (no back), or over bath bench can help with this. If you have a shower in the bath, you will likely require an over bath bench.



To make it easier to get on and off the toilet (particularly for people with hip precautions) an over toilet aid makes the toilet seat higher.



**3. Long handled tools:** Other examples of helpful equipment are long handled equipment like a shoe horn, a shower brush, and a 'grabber' (particularly for people with hip precautions).



The equipment I need is:

## Pre-Admission Checklist (to complete before Step 4. Pre-admission Clinic):

- I have managed my health and:
  - I have stopped smoking
  - My BMI is less than 30
  - My blood haemoglobin levels are more than 120 (women), more than 130 (men)
  - I have done regular strengthening exercises for my legs
  - I have made sure my skin is free from cuts, grazes and irritation
  - If I have diabetes, my HbA1c is less than 9
  - If I have heart disease, this is being treated and actively monitored
  - If I have a mental health condition (e.g. anxiety/depression) this is being treated and actively monitored
- I have received clearances from any other Specialists I see, e.g. Cardiologist, within the last 12 months
- I have considered my home and have a plan for how I will manage after surgery- including driving (note- no driving for 6 weeks), shopping, cooking and cleaning.
- After surgery I will get home with:
  - Plan A: \_\_\_\_\_
  - Plan B: \_\_\_\_\_

# Step 4. Pre-admission Clinic

## Key points:

- **We will check that you have completed the Pre-Admission checklist and ask you about your plans for after surgery.**
- **A nurse and anaesthetist will check that you are 'fit for surgery'. If you have managed your health and completed the checklist as above this will decrease the risk of your surgery being cancelled.**

This is a compulsory appointment and is very important to ensure your surgery and discharge home will run smoothly. You will be contacted with the date and time of your Pre-admission Clinic appointment. The appointment is usually held about 2-4 weeks before your surgery.

<b>Appointment</b>	Pre-admission Clinic
<b>Date/ Time</b>	
<b>Location</b>	
<b>Transport plan</b>	

What to bring:

- Information from your GP i.e. GP Health Summary, including current medications, past surgery, recent test results
- Xrays (from within the last 6 months)
- Clearances from other involved specialists
- Any additional forms you have been asked to fill out (ensure they are completed)
- This booklet.

## Important points to talk about

Your previous medical history, i.e. what has happened before now, is important for us to understand, please ensure you talk to the Anaesthetist and nurse about the following:

- Have you had complications related to anaesthetics?
- Do you regularly consume alcohol or other drugs?
- Are you still smoking?
- Can you not have a blood transfusion (for any reason)?
- Do you have any skin infections, cuts, scratches or wounds?

## Anaesthesia

There are two main types of anaesthetic you can have:

1. Spinal anaesthetic
2. General anaesthetic i.e. 'GA'

**Spinal anaesthesia** is anaesthetic injected into your lower back which makes your numb from the waist down. You can also have drugs that make you feel sleepy or asleep (light or deep sedation) relaxed, but you do remain conscious. Due to the sedation it is likely that you won't remember anything afterwards. You feel no pain during the operation.

There are less risks of side effects (feeling sick, difficulties with breathing and bleeding), and you will recover more quickly without needing as much strong pain relief medication after the operation.



**General anaesthetic** is an injection and/or gas anaesthetic that makes you unconscious. You also have a breathing tube in your throat for oxygen and anaesthetic gas. While you are unconscious during the operation, there is no pain relief from 'GA' after the operation so you would require strong pain medications which can cause you to feel sick.

Often, in addition to a Spinal or GA the anaesthetist and surgeon will consider:

1. Local Infiltration Anaesthetic
2. A nerve block

**Local Infiltration Anaesthetic (LIA)**

is multiple small injections around the surgery joint done during the operation. This provides effective pain relief after the surgery and doesn't affect your muscles so allows you to move and walk more quickly to avoid complications.

**A nerve block** is an injection of local anaesthetic near the nerves that go to your joint. This makes the joint numb and pain-free after the surgery, however it affects your muscle so you cannot move your leg properly for some hours which will delay you moving and walking to avoid complications.

After the operation your pain relief will be through pills, tablets or liquids to swallow.

There are advantages and disadvantages to each option. Your anaesthetist will talk to you about which kind of anaesthetic is most suitable for you. Please consider the information above and talk to the anaesthetist about any previous reactions you have had to anaesthetics.

## Skin maintenance

Having a cut or graze increases the chance of infection. Infection can be a serious complication. Therefore, you cannot have surgery if you have a cut or a graze. You should talk to the nurse about this and take precautions to ensure your skin is maintained.

## Medications

You will be instructed on which medications to cease prior to your surgery. Usually anti-inflammatory medications, as well as blood thinning medications, should be stopped 7-10 days prior to surgery or as advised at your pre-admission clinic appointment. Please speak with the medical team prior to ceasing any medications. On the day of surgery you can take your usual medications as instructed with water.

## Fasting

Fasting is required prior to surgery to minimise the risk of food getting stuck in your lungs, particularly for people who have a general anaesthetic. Generally, patients can have food/solids until six hours before surgery, and can have 'approved' drinks until two hours before surgery. For the two hours before surgery patients are 'nil-by-mouth', which means you should not eat or drink anything. This can change for different people, particularly people with diabetes- that it why you should take notes on advice given to you on when you should fast.

### Example timeline for a procedure scheduled for 9am

	9 pm	11 pm	1 am	3 am	5 am	7 am	9 am
<b>General patients</b>	Food/solids allowed until 6 hours pre-surgery			Approved drinks		No food or drinks	Procedure

Your notes on when to stop medications:	Your notes on when to fast before surgery:
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### Your notes from pre-admission clinic:

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## Checklist to complete in Pre-Admission Clinic

- I have considered my anaesthetic options and talked to my anaesthetist regarding any issues or concerns
- Between now and surgery, I will stop some activities that could increase the risk of getting a cut or skin irritation. E.g. gardening.
- I understand what medications I should stop taking, when I should stop them, and have written down these notes
- I understand what equipment I need to hire and know where I can hire it.

# Step 5. The day/week before Surgery

## Key points:

- **You need to follow the ‘final preparation’ instructions including maintaining and preparing your skin, stopping medications and fasting as advised.**
- **You should hire the planned equipment and have this in place at home before you go to hospital.**
- **You should have your transport home from hospital arranged for before 10am on the days you are likely to go home, before you go to hospital.**

There are some ‘final preparation’ activities in the week and days before your surgery. These are very important and you should take careful notes on your personal instructions.

## Equipment and Transport home

You should have your equipment in place at home and transport home arranged, before you go to hospital for surgery.

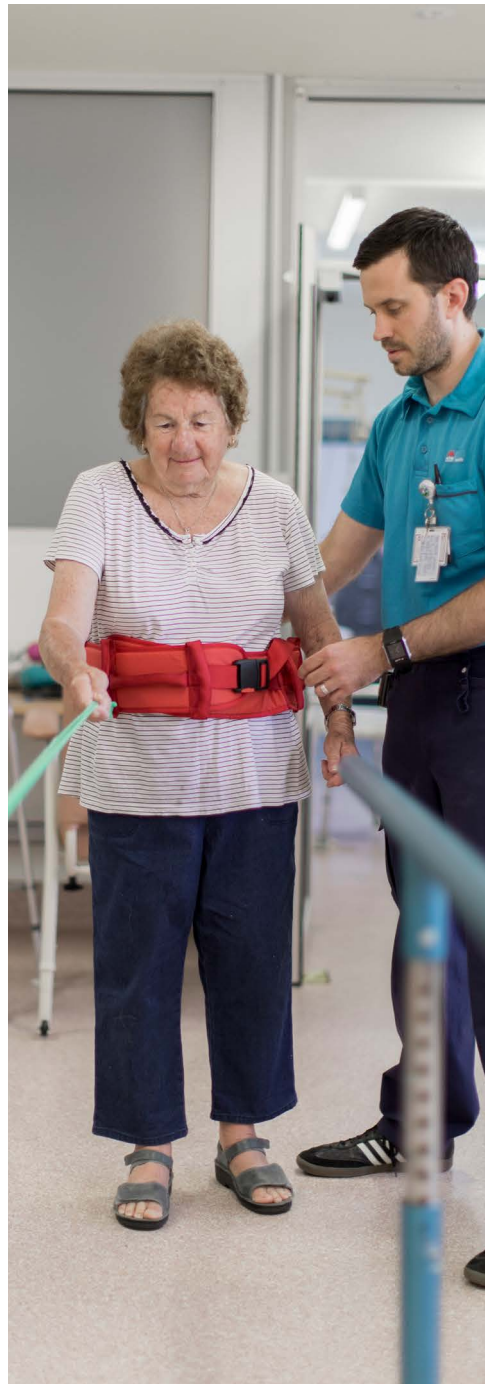
## Preparing your skin

You need to wash your skin with chlorhexidine wash the night before surgery AND the morning of your surgery. This is to reduce skin bacteria and decrease the chance of infection. You can buy chlorhexidine wash at the chemist. Do not use talcum powders or moisturisers on the day. Ensure you have no nail polish or make up on.

## Checklist before going to hospital:

- My house is ready for when I come home:
  - I have some frozen meals prepared
  - My house is clean
  - I have hired/purchased the equipment I need as per Physio and OT advice
- I have practiced walking with my ‘after surgery’ walking aide, e.g. crutches or a frame, and can go up/down stairs, if required.
- I have maintained my skin- i.e. I have no cuts, grazes or irritation
- I have stopped my medications as advised
- I have my antiseptic wash from the chemist, and have showered using the antiseptic wash the night before surgery and the morning of surgery. NO talcum powder or moisturiser.
- I have removed nail polish and make up
- I have fasted as advised

- I have packed my bag for hospital including:
  - My current medications in their original packaging (do not bring pain medications or sleeping tablets)
  - Recent Xrays, if taken outside the hospital
  - Closed and secure shoes e.g. sneakers. NO slippers or thongs
  - Comfortable and loose clothes, including underwear
  - Your regular and/or hired walking aide
  - Toiletries: toothbrush/toothpaste, shampoo, deodorant, bodywash/soap
  - Personal items: glasses/case, hearing aide/case/spare battery, dentures, phone/charger, a small amount of cash for trolley items e.g. newspaper, CPAP machine (if applicable). **Please do not bring jewellery.**
  - Other items: earplugs, music device/earphones, books/magazines
  - this booklet
  - your recovery guide.
- I have arranged transport to the hospital, and home from hospital afterwards.



# Step 6. Joint Replacement Surgery

## Key points:

- **You should follow the instructions on where to go the morning of your surgery. You will be taken to theatre for your surgery. After surgery you will go to the Orthopaedic Ward.**
- **You should follow the instructions on your 'recovery guide' sheet.**
- **Please use the call bell if you need assistance. Please tell the staff if you have any concerns.**

<b>Appointment</b>	Surgery
<b>Date/ Time</b>	
<b>Location</b>	
<b>Transport plan</b>	

## Before surgery

The nurse will call you the day before your surgery to give you the final instructions on where you should go the morning of your surgery. After you arrive at the Admission point you will be prepared for surgery, this includes:

- Removing contact lenses (you can wear glasses until you go into surgery), hair pins etc.
- You will change into a hospital gown and be fitted with a hospital identification band
- We will check your consent form for surgery is signed
- Your belongings will stay in the pre-operative area, and be sent to the Ward after your surgery.

You will be taken to the Operating Theatre, this includes:

- Going to theatre on a bed
- Your anaesthetist will see you and discuss your anaesthetics
- Checking that everything is correct
- Your surgery will take approximately 2 hours; afterwards you will be kept in recovery for about 1-2 hours before going to the Ward.
- About 4-5hours after you arrive your visitors can see you in the ward.

## After surgery- On the Ward

After surgery, you will be working hard to get your muscles strong and get moving again. When you first get back to the ward you will:

- **Wear compression stockings-** these are stockings that give some pressure to your legs and help prevent Venous Thromboembolism (VTE) i.e. Deep Vein Thrombosis (DVT) and Pulmonary Embolism.
- **Wear Calf Compressors-** these are a device that wraps around your leg and give pressure by pumping air into the calf compressor. These also help to prevent VTE.
- **See the nurses-** The nurses will check your pulse, blood pressure, temperature and breathing.
- **Start to drink water and eat as soon as you are able-** it is important to stay hydrated. If you feel nauseated, we recommend you take small sips of water regularly to keep hydrated, but wait until it has settled before you eat. Tell the nurse if you feel nauseas.

- **Take pain medications-** You will need to take pain relief tablets. Some patients have a “Pain Button” (Patient Controlled Analgesia machine) to press for small amounts of pain relief. Let the nurse know if your pain is increasing.
- **You might have ‘lines’ or ‘attachments’** e.g. You might have a catheter (which drains urine), a wound drain (which removes excess blood from your wound) and/or an IV (intravenous) ‘drip’ for fluids and antibiotics, oxygen prongs or mask on your face. The nurses will check these and take them out the day after surgery.

joint. You should work towards your Physio Hospital Goal as discussed.

- **See the OT and check your self-care-** The OT will check if you are managing to shower, use the toilet, get dressed and move to the chair by yourself. They will give you advice on how to improve and be more independent. You should work towards your OT Hospital Goal as discussed.
- **See the nurses-** The nurses will help you with walking, showering and using the toilet- please use your call button if you need assistance. If you do not have a bowel motion after 1-2 days please request a laxative (the pain relief can make you constipated). The assistance you will need from the nurses will decrease each day.
- **Take pain medications-** Aim to keep your pain controlled (ie. less than 5/10) at all times so you can do physiotherapy and have a comfortable recovery. Normally it is helpful to take stronger pain relief before getting out of bed and doing exercises, so you should tell the nursing staff when you plan to do this.
- **Get a blood test-** You will have a blood test to check that your haemoglobin levels are ok.
- **Get an X-ray-** This is to double check that there are no issues with the prostheses, it is okay to do your exercises and start walking before your X-ray as this is just to check there are no changes.
- **Learn how to do your VTE medication injections-** You may be required to do your own injections at home. If that is the case, the Nurse will teach you how to do your own injection so you are confident when you go home. If this will be an issue, you should arrange for a family member who can learn to do this for you.
- **Prepare for your return home (discharge)-** You will work with the doctors, nurses, physio and OT to finalise plans to return home.

## Pain relief

You have been prescribed some medications which the nurses can give you for pain. Your medication may include some regular long acting pain relief which the nurses will bring in automatically. There are stronger medications available to you if you still have pain. These medications are given “as required” so make sure you tell the nurse if you need extra pain relief.

If you have a PCA or “pain relief button” it is to be controlled only by you. You can press your button every 5 minutes to control your pain. This will give you a small amount of pain relief each time, which is safe and easy to use. It is recommended that you press the button just before any activities requiring movement of your surgery joint and to allow you to move freely in bed. This button is usually removed the morning after surgery and replaced with tablets.

## Hospital Recovery

After you have recovered from the Anaesthetics you will:

- **See the Physio and start your exercises-** The Physio will give you exercises to do each day, starting with easy breathing and gentle movement. The aim of the exercises is to get your strength and movement back quickly, be safe walking and minimise swelling in the

# Hospital Complications

It is normal to experience pain after surgery. However, if after surgery you experience calf pain, chest pain, have a fever, your wound is oozing, or you have reddened/blistering/broken skin this may be a sign of a complication. If you have any of these symptoms, or have any other concerns please inform a health professional immediately.

There are many things you can do to help prevent complications, including wearing your compression stockings, keeping your wound dressing on, using your call bell if you need assistance, and getting walking soon after surgery.

Staying in hospital longer can increase the risk of these complications. This is why we want you to be safe to go home as soon as possible. For more information on hospital complications and what you can do to prevent them please see page 29.

## Rehabilitation Exercises

Your rehabilitation in hospital will consist of two parts: exercises to prevent complications, and exercises to gain strength and movement.

### Exercises to prevent complications

You should start these immediately after surgery, and do them every hour that you are awake in hospital.

1. Breathing exercises: deep breathing and hold for 2-3seconds x4, a strong cough.
2. Ankle pumps: Bend at the ankle so your toes point towards your head and then away from your body x10

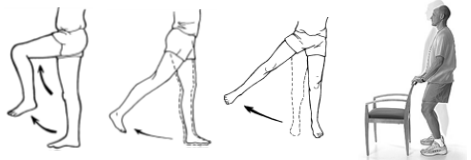


### Exercises for strength and movement

The following exercises are examples of what the Physio will ask you to do. They are for muscle strength and joint movement. You need to be doing these multiple times a day to ensure you will gradually improve and can walk more easily. You should practice these before going to hospital- try starting with x10 of each 3 times around, once a day.

Hip replacement patients

- Hip flexion in standing- hold onto a firm surface for balance, bend your hip forward so that your foot lifts up from the floor (do not lift your knee higher than your hip i.e. 90 degrees)
- hip extension in standing- hold onto a firm surface for balance. Slowly step your leg backwards while tightening your buttock muscles. Take care not to arch your back.
- hip abduction in standing- Hold onto a firm surface for balance. Gently lift your leg out to the side. Try to keep your toes pointing directly forwards.

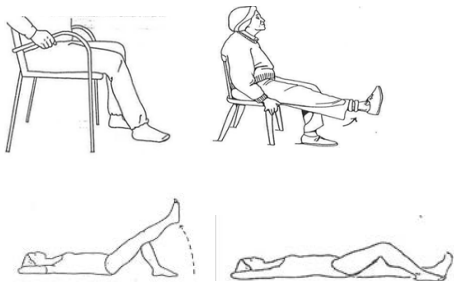


- Mini squats- hold onto a firm surface for balance (e.g. the end of your bed), keep your back straight and gently bend your knees and stick your bottom out.

- calf raises- hold onto a firm surface for balance. Lift your heels from the floor so you are standing on tip toes. Return you heels to the floor.
- hamstring curls- hold onto a firm surface for balance. Bend your knees behind you to bring your heel towards your buttocks.

Knee exercises:

- static quadriceps: push your knee down into the bed and tighten your thigh muscles
- straight leg raise- keep your leg straight and slowly raise it off the bed, then gently lower it back down to the bed.
- knee bending- bend you knee so your heel 'slides' up the bed towards your buttocks the slowly straighten your knee again.
- Mini squats- hold onto a firm surface for balance (e.g. the end of your bed), keep your back straight and gently bend your knees and stick your bottom out.
- knee straightening in sitting- sit in a chair, straighten your knee so your foot is lifted off the floor
- knee bending in sitting- sit in a chair, bend you knee by bringing you heel back under the chair and/or sliding you bottom forward in the chair
- Calf raise- hold onto a firm surface for balance. Lift your heels from the floor so you are standing on tip toes. Return you heels to the floor.



## Things to consider

- Do you know what you can do to decrease the chance of getting a VTE, having a fall in hospital, or getting a pressure wound? These are preventable complications and you play an important part in avoiding them.
- Have you checked off your daily activities and alerted staff if there are any issues? Working together we can make sure that nothing is accidentally missed.
- If required- Do you understand your hip precautions? Have you planned how you will do your daily activities while avoiding these movements?
- Are you prepared to go home?

**Write questions and notes here:**

## Checklist before going home:

- The doctor has seen me and said that I am safe from a medical perspective to go home
- I have reached my physio hospital goal (walking, strength and movement)
- I have reached my OT hospital goal (self care e.g. showering)
- My wound has been checked
- I have picked up my:
  - Discharge and referral letters (GP, Outpatient Physio Clinic)
  - Medications (3days of pain medications) (note- you may want to book your GP appointment now to get a script for more medications)
  - Personal items e.g. Xrays
- I have transport to pick me up before 10am



# Step 7 Home and Rehabilitation

## Key points:

- **Most people do not need Inpatient Rehabilitation (i.e. rehabilitation in hospital), but will go directly home and complete their rehabilitation with a physio at home and/or at the Outpatient Physio Clinic.**
- **You should see your GP to manage your medications, and check your wound.**
- **You will be referred to your local Outpatient Physio Clinic, normally this starts after 1-2 weeks.**

## Going home and having support

Most people will go directly home after surgery. Please ensure you have read and considered your home and prepared, according to the advice on page 10.

In some cases, like if you are unexpectedly unwell post-operatively, you may not meet the hospital goals. In this case you may be seen by a specialist rehabilitation doctor to determine if you would benefit from being in a rehabilitation hospital. If you would like to pay for private rehabilitation, please tell the nurse of your plans so they can assist in arranging transport to the private facility, you may still need to go home before going to private rehabilitation.

## Timeline for rehabilitation and appointments

- 1. Hospital in the Home**- If you meet the criteria and live in NSLHD you may have the Hospital in the Home services come and visit. This includes a nurse, physio, occupational therapist. They will ensure you are completing your rehabilitation exercises, and check you have no problems settling back in to life at home. They may refer you to additional services if required.
- 2. GP appointments**- You will leave hospital with 3 days of pain relief. You should check when this finishes and if your GP is available to fill the script for more in case you need it. Your GP will help you wean off the pain relief. They will also check your wound and take the sutures out at 2 weeks post-surgery.
- 3. Outpatient Physio Clinic**- You will be referred to your local Outpatient Physio Clinic for ongoing rehabilitation. These are appointments at the hospital clinic, to check how your home rehabilitation exercises are going, give you harder exercises and ensure you are making good progress.
- 4. Surgeon follow up**- the surgeon will check your joint replacement and likely give you the clearance for driving. You should ensure you have any questions ready for this appointment. Your surgeon should tell you when you next need to follow up with them.

Appointment	Date/ Time	Location	Transport plan
(Going home after hospital)			
Hospital in the home			N/A
GP appointment	(3 days after going home- if required)		
Outpatient Physio appointment	(About 1-2 weeks after going home)		
GP wound appointment	(14 days after going home)		
Surgeon 6 week follow up	(6weeks post-surgery)		

## Getting into the car (car ‘transfers’)

1. Move the seat back and use a cushion to raise the seat height (a plastic bag can also make it easier to move)
2. Stand with your bottom facing the seat and so that you can feel the car frame on the back of your legs
3. Lower your bottom onto the seat, using the door frame for support
4. Move your bottom back and use the overhead grips to help lift your legs into the car

To get out of the car, do these steps in reverse!



## Walking at home

As your strength improves and you gain confidence, you will be able to walk longer distances and start practicing shorter distances without a walking aid. This can take a couple of weeks.

## Self-care at home

Please refer to page 10 for more information and tips about managing at home after surgery.

## Tips for home

- Moving about- Try to get up and move around frequently; don't stay seated for long periods. Similarly, ensure you gradually build up your walking and exercises; don't walk long distances without breaks.
- Getting up off a chair- When standing up, move your bottom to the edge of the chair, lean forward with your chin over your knees and push up through your legs. Don't pull yourself up using your walking aid.
- Housework- plan to do small tasks regularly rather than all in one day
- Shopping- Use online shopping. Otherwise, use a trolley, don't carry heavy bags long distances
- Dressing- sit down to dress, dress your operated leg first and undress it last. Wear sensible firm-fitting slip-on shoes, or convert laces shoes to elastic.

## Things to consider

- Are you gradually progressing in your recovery? Sometimes it feels like you are not getting anywhere, so it is important to recognise small milestones, like walking to the letter box and back.
- If you are returning to work, have you planned a gradual return to work? Can you work for decreased hours in a day, or decreased days in a week?

### Write questions and notes here:

## Checklist before your 6 week Surgeon appointment

- I have been doing my rehabilitation program every day
- I have taken my medications to prevent VTE and worn compression stockings for 6 weeks
- I am back to my normal level of independence in everyday tasks at home e.g. showering, cooking
- I am working towards my surgery goal and know approximately how long it will take me to reach this goal
- My surgeon has cleared me to drive again (at appointment)
- I know when I need to follow-up with my surgeon next (*usually 1-2 years*).

# Support Services

Other services you might need to arrange pre-surgery include:

## **My Aged Care**

Finding out about available services before you need them can help you make well-informed decisions. For information about help in your own home, short-term help, respite and aged care homes, and getting a free assessment for services you could access visit the 'My Aged Care' website [www.myagedcare.gov.au](http://www.myagedcare.gov.au) or Ph: 1800 200 422

## **Patients travelling in NSLHD**

'Community transport' provides affordable and flexible transport to appointments for people within NSLHD who cannot access public transport, including people with a disability and people over 65 years. For more information visit [www.easytransport.org.au](http://www.easytransport.org.au) or Ph: 1800 035 262

## **Patients travelling long distances**

Patients living more than 100 km from the Hospital may be eligible for some reimbursement of transport and accommodation costs through IPTAAS (Enable NSW). Ph: 1800-478-227 [www.enable.health.nsw.gov.au](http://www.enable.health.nsw.gov.au)

**Country Care Link** assists rural people visiting Sydney for medical treatment with transport and accommodation information Ph: 1800-806-160 [www.sistersofcharityoutreach.com.au](http://www.sistersofcharityoutreach.com.au)

## **Caring for others and respite**

If you care for another person, you will need to consider how they will be cared for when you have surgery. Carers Australia has a Carer Line in business hours on 1800 242 636, and a website with information on support and programs at [www.carersnsw.org.au](http://www.carersnsw.org.au)

# Step 8. Long term joint replacement health

A joint replacement could help you to get back to a more active lifestyle. You should check with your surgeon what they recommend:

- Often it is a good idea to start small and do any new activity for only a short period, and gradually build this over time.
- Sometimes it takes a bit longer (around three months) to be able to kneel on a knee replacement (e.g. for gardening).
- Most people are able to walk, but would not jog long distances or play contact sports.

Most joint replacements last at least 15 years, with approximately 5-12% of total hip and total knee replacements requiring revision surgery by 15 years (according to Australian National Joint Replacement Registry Data 2016).

Longer term, we recommend:

- You defer non-emergency dental treatment until 3-6 months after joint replacement, but ensure you have antibiotics as a precaution if you do need emergency dental treatment.
- If you have hip precautions, that you don't force your hip into these positions (e.g. no intense stretching or activities where these movements are required).
- If you have any major bowel, bladder or dental surgery, that you are given antibiotics prior to the surgery. This is to help prevent infection in the joint replacement. You should talk to your doctors about your joint replacement and the effects it might have on future treatments.
- You take note of the times when you surgeon recommends you follow-up with them.

Also, be aware, metal prostheses can activate security alarms at airports!

**Write your notes here:**



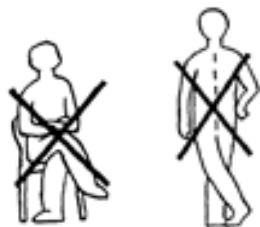
# Hip precautions

After a hip replacement, some people must follow 'hip precautions' to decrease the risk of dislocation. Your surgeon should have told you if you will have 'hip precautions', which help avoid extra stress on the hip joint that it is not ready for (because of the healing muscles and tissues). Your team will give you specific instructions in hospital regarding your hip precautions. The three basic rules you must follow for at least the first 3 months are:

1. Do not bend the hip joint past 90 degrees



2. Do not cross your operated leg across the midline of your body



3. Do not turn or twist your operated leg inwards



## Extra tips for people with hip precautions:

- Place a pillow between your legs when lying in bed
- Use a firm and high set chair with armrests. Avoid low chairs. Do not cross your legs, or lean forward from a sitting position.
- Avoid twisting or turning when getting ready to sit down.
- Showering - sit down to shower and use long-handled equipment to help you reach your feet or pick things up off the floor. Avoid bending.
- Dressing- use long-handled equipment as required.

# Hospital complications

After your surgery we need to work together to help you avoid any complications. The following are the most common complications after joint replacement surgery:

## Venous Thromboembolism (VTE)

**What it is?** VTE is a blood clot forming in a vein, if this is in a deep vein it is called 'deep vein thrombosis' (DVT), this is usually in the legs. There is a small chance that the blood clot can travel through your bloodstream to your lungs (this is called a Pulmonary Embolism), which is a serious complication. People who have joint replacement surgery are at a higher risk of getting a VTE because joint replacement is a major surgery.

**What can you do?** To minimise the risk of VTE you need to wear special compression stockings and use calf compressors (for the first 48hrs), and start walking soon after your surgery. This helps the blood to move around your legs and not clot. We will give you blood thinning medications, this will likely be given as an injection- you may need to continue these injections for yourself when you go home. Keep your compression stockings pulled up, and don't allow them to roll down or bunch. You will also need to keep wearing your compression stocking for 6 weeks, and should wash and reuse them during this time.

## Wound Infection

**What is it?** People in hospitals are at risk of getting an infection, including more serious infections from bacteria like 'Staphylococcus aureus' (i.e. MRSA), because other people in hospital may carry this bacteria. It can enter open wounds in people who have decreased immune system strength.

**What can you do?** You should wash your hands thoroughly with soap and running water after going to the toilet, before eating, before and after touching your wound dressing, after touching unclean clothing/linen. You should ensure your wound is covered with a waterproof dressing until it is 'dry'. Don't share personal items such as towels, razors or toothbrushes.

**What do we do?** All the staff will wash their hands and/or use an alcohol-based hand rub before and after touching you or your surroundings, and before performing a procedure e.g. wound dressing change. If you are concerned that staff are not performing this hand hygiene you should raise your concerns with that staff member, or another staff member.

## Falling in hospital

**What is it?** People in hospital are at risk of falling and injuring themselves because they are in an unfamiliar environment, are taking different medications, might have lines attached (e.g. a catheter), and cannot walk as well as normal (e.g. because of surgery).

**What can you do to prevent a fall?** Use your call bell and wait for staff, especially if you have been told you need assistance to walk. Turn the light on at night. Take your time when getting up. Wear enclosed footwear and your glasses. Use the walking aid from the physio. Sit whilst having a shower. Use the handrails to get off the toilet. Remember: "Call, don't fall"

**What should you do if you fall?** If you do fall, stay calm. Do not get up, but rest and call for assistance.

**Family members-** please speak to the NUM or RN if your relative is confused, and they can decide on appropriate measures to keep them safe.

## Pressure Injury

**What is it?** A pressure injury is an area of skin (normally over a bony area like your heels or buttocks) that is damaged due to unrelieved pressure. They are also known as bed sores. People in hospital are at risk of getting a pressure injury because they spend more time in bed and move less. Pressure injuries look like redness on the skin and can have a blister or broken skin. This can be a sign of damage under the skin surface.

**What can you do?** The best thing is to relieve pressure on your skin by changing your position frequently e.g. moving around in bed, moving between the bed and chair, and taking short walks. The staff can help you if you are having difficulty. Taking adequate pain relief will make it easier to stay active and change positions. It is also important to keep your skin and bedding dry. Tell staff if your bedding or clothes are damp. You should moisturise dry skin, but avoid massaging over bony parts.

This booklet is a collaboration of information from health professionals who are involved in orthopaedic joint replacement surgery at the hospitals of Northern Sydney Local Health District.

Thank you to all staff for their contributions to the booklet over the years.





# Glossary

**Acute illness-** An acute illness is an illness that is of a short duration.

**Advanced Group-** This is the name for the patients who are assessed as 'low risk' and/or suitable for the specific set of hospital care and activities that is provided for this group. As low risk patients are less likely to have complications from anaesthesia, they can get walking and be ready to go home sooner, which helps to prevent hospital complications.

**Ambulatory Care-** This is another word for 'Outpatients' i.e. appointments at hospital, but not staying overnight.

**Arthroplasty-** Arthroplasty is the medical term for joint replacement surgery.

**Osteoarthritis-** Osteoarthritis is the degeneration of joint cartilage. It causes pain and stiffness. It is most commonly seen in the hip, knee and thumb joints, and is most common from middle age onwards.

**Avascular Necrosis-** Avascular necrosis is when the blood supply to an area of the body (e.g. the hip joint) is interrupted. This can be from a trauma e.g. a fracture from falling, or other medication conditions or treatments.

**Inpatient-** An 'inpatient' is a person who is in hospital for medical treatment, they stay overnight at the hospital.

**Chronic illness-** A chronic illness is an illness that persists for a long time, or is constantly recurring, often 3 months is the time period where health professionals start defining medical issues as a 'chronic illness'.

**Complications-** complications are an unanticipated problem that arises following a procedure, treatment or illness. Complications are named this because they 'complicate' the situation and may prolong the recovery process.

**Conventional Path-** This is the name for the hospital care and activities for patients who have medium or higher risks. The health professionals work together to plan the most appropriate care plan according to the patients other medical issues.

**Enhanced Program-** This is the name of the Northern Sydney Local Health District Program for people who are having joint replacement surgery. It includes improved preparation before surgery, up-to-date high quality care in hospital and supported return to home. It is pronounced 'Enhanced'.

**Orthopaedics-** Orthopaedics is the branch of medicine that deals with muscles and bones, specifically through surgery. The surgeon who does joint replacement surgery is an 'Orthopaedic' Surgeon.

**Outpatients-** An 'outpatient' is a person who is in hospital for medical treatment, but does not stay overnight. This is usually at a clinic with an appointment.

**Rehabilitation-** Rehabilitation is therapy that aims to restore a person to health and normal life after surgery, injury or medical illness.

**Rheumatoid Arthritis-** Rheumatoid Arthritis is a disease that causes inflammation in the joints that results in painful deformity and difficulty moving them. It is most commonly seen in the fingers, wrists, feet and ankles, and will usually affect both sides of the body. It is an 'autoimmune disease' in which the body's immune system mistakenly creates inflammation in the joints.

# Health professionals names and roles

- **Surgeon**- Also called 'Orthopaedic Surgeon'/'Orthopod', Consultant, Fellow, Specialist. This is the doctor who is in charge of your care. They will make the decisions about whether you can have surgery, what the details of your surgery and recovery will be.
- **Registrar**- These are Senior Doctors who are training to become a Specialist. The Registrars oversee your day-to-day care in hospital.
- **Resident and Intern**- These are Junior Doctors. They can give you some information but decisions about your care come from the Surgeon and Registrar.
- **Wait list coordinator and nurse screener**- These person will help to coordinate your paperwork and ensure you have provided all the information from your GP about your health (e.g. previous surgeries and Xrays).
- **Anaesthetist**- This is the person who is in charge of your anaesthetics for surgery, and pain management after surgery.
- **Other Nurses:**
  - **Pre-Admission Clinic Nurse**- This is the nurse you will see at Pre-Admission Clinic who will check your medical information and check that you have prepared to go home after surgery.
  - **'NUM' Nurse Unit Manager**- This is the nurse who is the manager of the ward in hospital. They often help to ensure your stay in hospital runs smoothly by talking to the surgeons and the 'Allied Health'
  - **'Clinical Nurse Consultants' (CNC) and 'Clinical Nurse Specialist' (CNS)** - These are nurses that specialist in a particular area and have extensive knowledge and experience.
  - **Clinical Nurse Educator (CNE)**- These nurses work alongside the nurses to give them additional education and support.
  - **Registered Nurse, Enrolled Nurse, Assistant in Nursing**- These nurses are there to help you while you are in hospital. They will help you with your medications, checking your blood pressure, and helping prevent complications like falling over in hospital or pressure wounds. You should use you call bell if you need assistance.

## Common Acronyms

- **Allied Health Staff**- There are many different professions that come under the name 'Allied Health' these include:
  - **Physiotherapist**- The 'physio' looks at your walking, your muscle strength, your joint movement and swelling. They will give you advice on what walking aide you should use, and what exercises you should be doing. The physio exercises are an important part of your 'rehabilitation'. You may see a physio before surgery, in hospital and after you go home.
  - **Occupational Therapist (OT)**- The 'OT' looks at your 'daily activities' for example, they want to make sure that you are able to take a shower, use the toilet, get dressed and get on/off a chair (including a car seat). They might recommend that you have some assistance, and give you advice on how you can make these 'daily activities' easier (for example, using certain equipment or techniques). This is to ensure you are safe when you go home after surgery.
  - **Social Worker**- The social worker may see you to talk about extra supports or services that you might need. This could be domestic services (cooking, cleaning) or respite services (for carers).
  - **Dietician**- Your GP might refer you to a Nutritionist or Dietician to help you manage your health before surgery. You may want to ask about a Dietician if you have diabetes, are overweight, have high blood pressure or have a chronic condition.
  - **Orthogeriatrician**- This is the doctor who is a specialist in the care of elderly orthopaedic inpatients. They are often involved to give specific advice, particularly for patients over 70 years.
- AIN: Assistant in Nursing
- BMI: Body Mass Index- this is a calculation that indicates if you are overweight. It is your weight (kg) divided by the square of your height in metres (m<sup>2</sup>), you can use an online calculator to check your BMI.
- CNC: Clinical Nurse Consultant- see 'Health professionals'
- CNE: Clinical Nurse Educator - see 'Health professionals'
- CNS: Clinical Nurse Specialist- see 'Health professionals'
- DVT: Deep vein thrombosis
- EN: Enrolled Nurse
- GP: General Practitioner: This is your doctor in your community that has referred you to the surgeon. They can help you manage your health before surgery.
- MRSA: Methicillin resistant Staphylococcus aureus (bacterium strain)
- NUM: Nurse Unit Manager- see 'Health professionals'
- OT: Occupational Therapist- see 'Health professionals'
- PT: Physiotherapist- see 'Health professionals'
- RN: Registered Nurse- see 'Health professionals'
- PAC: Pre- admission Clinic: The appointment before your surgery to check you are fit for surgery and prepared to go home after surgery
- VTE: Venous thromboembolism.



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Northern Sydney  
Local Health District