

# Total Knee Joint Replacement



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# INTRODUCTION

A total joint replacement is when a damaged or arthritic joint is removed or replaced with an artificial joint called a prosthesis. The goal of this type of surgery is to relieve the pain in the joint caused by damage to the cartilage. This booklet has been provided to help you prepare for your joint replacement surgery in order to achieve the best possible outcome.

The outcome of joint replacement surgery depends not only on the successful placement of your new joint by the surgeon, but a high degree of commitment on your part to work hard both preoperatively and after the operation to achieve excellent results, and return to a normal and pain free life.

The range of motion in your joint will generally improve after surgery, however the extent of improvement will depend on how stiff your joint was before the surgery. You will be surprised at how quickly after the operation you will recover and regain your mobility if you work hard on it . Most people will be able to be discharged from hospital 4-5 days after the operation.

# BEFORE YOUR OPERATION

## EXERCISES

Just as athletes train for the big race, it is a good idea for you to train for your surgery. If your muscles and joints are in the best possible condition before the operation we know that you will recover and mobilize with less difficulty. Start today!

Try and set several short periods each day to do the following exercises, while watching television is a good time. The effort will certainly be worth it in the long run.

If any of the exercises cause you significant pain or your joints hurt more than normal afterwards either reduce the number of exercises you are doing or stop for a while and start again at a less intense level.

### ARM EXERCISE

You will be using crutches for the first few weeks after surgery until you are able to walk safely and take full weight through your leg. You will also need strong arms to help you get in and out of beds and chairs.

- ***Sit in a firm chair with strong arms. Push down on the arms of the chair and lift your bottom off the seat. Hold for several seconds - as long as you feel comfortable - repeat ten times. Each day try and hold your bottom off the seat for one or two seconds longer.***

### LEG EXERCISE

This exercise will strengthen your quadriceps muscle which is the large muscle on the front of your thigh. If this muscle is strong before your operation your walking will be easier.

- ***Sitting in a firm chair with your bottom well back on the seat. Lift your leg that is going to be operated on straight and try and hold it for 20 seconds. Repeat five times. Each day try and hold the knee very straight for a little longer.***

Swimming - if you are able to get to your local indoor swimming pool and get in and out of the pool safely walking in the pool is an excellent strengthening exercise before your operation.

Exercycle - if you have access to an exercycle and are able to get on and off safely, this too is good training exercise before you operation. Start with a very low resistance and slowly increase it by measured amounts as the days go by. It is important to 'warm up' and 'cool down' before and after exercise, that is, start slowly with the resistance low for five minutes and finish the same way

## PLAN FOR YOUR RETURN HOME

After your operation your movements may be a little restricted so it is wise to organize your home before you come to hospital to accommodate these problems when you first go home.

BEDROOM	If possible arrange to have a downstairs bedroom with easy access to the bathroom. <ul style="list-style-type: none"><li>• A firm bed will mean it is easier for you to get in and out of bed</li><li>• Ensure that your clothes are not stored low down to the floor</li></ul>
LOUNGE	Make sure you have a chair with arms in the lounge and that you won't have to bend over to get to TV controls and video. When sitting for extended periods it is a good idea to elevate your leg to decrease swelling - have a footstool handy.
KITCHEN	Stock up on supplies before you come into hospital and make sure food and cooking utensils are stored in cupboards that you can reach easily.
BATHROOM	A non-skid mat and a high stool are a good idea if you have a separate shower. If you have a shower over the bath a bench in the bath is needed as it is not advised to climb in and out of a bath for a few weeks. If you have a low toilet it is worthwhile getting a toilet seat raise

### SAFETY CONCERNS

- Please lift all loose mats in the house before your discharge home as it is very easy to catch the corner of these and fall.
- Be especially careful in the bathroom and kitchen where spilt water may create a slippery surface
- Be careful around small animals (or children!) that they don't trip you up
- Wear well fitting shoes - scuffs / jandels can trip you up

# YOUR STAY IN HOSPITAL

## PLEASE BRING WITH YOU:

- Relevant private X-rays
- Medicines, drugs inhalers that you are currently taking
- Personal toiletries - powder is beneficial for bed care during the first few days
- Ladies- loose sleeved nightshirt or nightie. Men - shortie pyjamas. Nightwear that buttons down the front is also helpful. You will have a drip in your arm for the first couple of days. We prefer you not to wear underwear in bed for the first few days because of difficulty with bedpans.
- Firm fitting slippers
- After the first day or two we will be encouraging you to get dressed each day so bring comfortable loose fitting day clothes
- Please leave valuables and money at home
- Please bring with you any aid for walking you are using i.e frame, crutches

## VISITING HOURS 10AM - 9PM

Relatives can phone the hospital patient enquiries - **520 9535** - for information on your progress. Please nominate one member of your family as liaison person with the ward staff.

## SMOKE FREE ZONE

The hospital and grounds are a smoke free zone. We ask you not to smoke for at least a week prior to your anaesthetic and longer if you can.

## FACILITIES

You will have a private room and bathroom on level four of the Ascot Hospital. Each room has its own television set, telephone, tea and coffee making facilities and a small fridge. A cafe is on the second floor should visitors need refreshments. The pharmacy is on level one adjacent to the main entrance.

## **COMMON QUESTIONS ABOUT THE PREADMISSION PROCEDURE:**

### **Q. Why was I given an ECG?**

**A** Most people over 60 years of age will have a routine ECG ordered by the surgeon. This gives a printout of the electrical activity of the heart, or in other words a pattern on how your heart is functioning. This is an important procedure because some patterns respond better to different forms of anaesthetics. This will assist the anaesthetist in deciding on the best anaesthetic for you.

### **Q. Why was my blood pressure, pulse, weight and taken?**

**A.** These recordings are taken under 'normal' circumstances, so that we can recognize any deviation from normal during your post-operative period and can act promptly if need be.

### **Q. Why did I need an M.S.U ( mid stream urine)?**

**A** A small sample of urine is obtained and tested at the laboratory to ensure that you do not have a urinary tract infection. If one is present, it needs to be treated prior to surgery.

### **Q. Why did I have a blood test and X-rays taken of my hips and or chest?**

**A.** The blood test will reveal whether or not your blood is 'balanced'. We may also find out from this test whether any infection is present. The chest X-ray will reveal any heart/lung abnormalities and the x-ray of your joint confirms for the surgeon the level of damage/disease.

Prior to going to theatre the physiotherapist will assess your muscle strength and range of movement and instruct you in:

- breathing and coughing exercises
- foot and leg exercises for your circulation
- hip and knee exercises
- bridging - to help with the use of bedpans
- safety instructions regarding your new knee
- the best way to get in and out of bed after the operation
- how to use crutches

# ADMISSION / OPERATION DAY

- You will be admitted on the day of your surgery
- **You must not eat or drink anything for 6 hours prior to your surgery**
- Your nurse will show you around when you arrive on the ward and introduce you to the 'gadgets' in your room
- Your nurse will record your temperature, blood pressure, pulse and weight and ask some general health related question. You will be shaved in the area of your operation.
- You will shower with special antiseptic scrub before dressing in the theatre gown
- You may be measured for some stockings (T.E.D.S.) to be worn following the surgery to reduce the risk of developing blood clots. These are white and are worn fully pulled up and may be secured with a belt around your waist. Blood clots can form in anyone, but the threat of their formation is much greater in the hospitalized patient when muscles aren't as active. These stockings improve blood circulation in the leg veins by applying compression and should be worn throughout your hospital stay and will be worn for six weeks after discharge. The risks of clots is best prevented by getting up and moving as soon as possible after the operation and walking regularly throughout the day.
- You will go to theatre on your bed accompanied by your nurse

## YOUR OPERATION - WHAT SHOULD I EXPECT?

- Your operation will take 1.5 - 2.5 hours
- You will wake up in recovery room with an oxygen mask on your face, an intravenous line into a vein in your arm, a pain relief pump, and a catheter (tube in your bladder) which will drain your urine for the first 24 - 36 hours.
- After a couple of hours you will transfer back to your room where nursing staff monitor your condition regularly taking blood pressure, pulse, breathing rate and oxygen levels
- As soon as you wake up remember to start your foot pumping exercises
- You can start to eat and drink as soon as you feel able, you may feel a little nauseous and not feel like drinking or eating for a while. As soon as you are able you need to start drinking 2 litres of fluid a day to help prevent constipation
- Antibiotics will be administered through your 'drip' for the first 24 - 48 hours
- The nurses will need to roll you regularly onto your side to check for pressure areas on your lower back and buttocks, at these times you will have a back wash and rub. During this is a good time to be doing your deep breathing exercises
- Your anaesthetic will be a spinal. The lower half of your body is numbed. This prevents you feeling sick and groggy from a general anaesthetic. The spinal last 6 – 12 hours after your surgery to ensure good pain relief. You will then be given a PCA ( see below) to control your pain

## **PAIN MANAGEMENT**

You can expect some pain from your surgery but the comment we often hear is that it is not as sore as it was before!

Pain will vary from person to person so your nurse will assess your pain by asking you to score- 0/10 meaning you have no pain at all

- 10/10 means extremely severe pain

### **PCA** (Patient controlled analgesia)

This delivered into the drip in your arm via a machine. The machine has a button on a cord which remains with you at all times. When you push the button when your leg is feeling sore a prescribed amount of medication is delivered directly into the vein in your arm. You cannot overdose yourself

You will also be given regular pain killing tablets in conjunction with this which will further improve the level of pain relief.

You will be given a Cyrocuff which is a special compressive brace which has ice cold water inside it. This will reduce your pain, swelling and bleeding.  
An instruction sheet is attached





## **DAY 3 UNTIL DAY OF DISCHARGE (USUALLY DAY 4-5)**

By day 3 you will be starting to feel more like your old self and gaining confidence in your new prosthesis.

The physiotherapist will continue to see you once or twice a day to progress your exercise program. When you are confident enough on crutches you will be taught how to go up and down stairs.

If you have any unusual pain or swelling in your lower leg please tell your nurse.

You will be visited by the discharge coordinator to ensure that all arrangements for you to go home are in place. Any arrangements needed for assistance at home will be made.

### **Goals prior to discharge:**

- **Showering independently or with minimal assistance**
- **Walking and getting in and out of bed on your own**
- **Exercising and walking 2 hourly - attempt circuits of the ward on your crutches**
- **Able to walk up and down stairs on your crutches**
- **Has a good understanding of the exercise program for post discharge**
- **90 degrees of bend in your knee**

## **ASCOT AT HOME SERVICE - DISCHARGE PLANNER ROLE**

Introducing Ascot at Home Service. The Discharge planner will visit you during your admission. Her role is to plan and organize services to support you during the early postoperative stage following transfer home. A range of services are available as some people need homecare assistance temporarily with personal needs such as showering, bathing, dressing or your household tasks such as laundry, shopping, meal preparation and the care of dependent children and relatives.

Other people have more specific needs relating to their recovery from surgery and require a registered nurse to assist them at home. They can look after your personal needs, along with simple wound dressings to more complicated wound management for removal of sutures, drains, packs, management of medication for pain, nausea, vomiting, antibiotics and anti-inflammatory drugs etc. Arrangements can also be made for other community services to provide for your needs. These services can be funded in numerous ways, through your own personal insurance scheme or ACC. If accommodation other than home is required e.g., motel, residential care, etc this can also be arranged, along with someone to be there for you, when you require it.

## DAY OF DISCHARGE

1. Transport home is your responsibility. Arrange for family or friends to pick you up at the time suggested by your nurse.
2. If you require a prescription for medication your nurse will arrange this in conjunction with your surgeon.
3. Remember to take home your discharge exercise program.

## CARING FOR YOUR NEW JOINT AT HOME

- AVOID TWISTING MOVEMENTS ON YOUR KNEE
- CONTINUE TO EXERCISE YOUR KNEE DAILY
- TREAT CUTS AND SCRATCHES PROMPTLY TO DECREASE INFECTION RISK TO YOUR KNEE

## POSSIBLE COMPLICATIONS

No operation is without its risks and complications, and knee surgery is no exception.

### DEEP VEIN THROMBOSIS (DVT)

A DVT can occur when blood clots form in the veins of the calf, thigh or pelvis. A piece of the clot can break free and lodge in the lung causing a pulmonary embolus.

**You should contact your GP immediately if:**

- you develop undue swelling or pain in the leg or lower abdomen
- develop sudden breathlessness, chest pain or coughing
- persistent discharge from wound

***The best way to prevent DVT is constant and regular exercise. When you return home continue getting up to walk around every hour during the day, even if you feel tired it is necessary for your circulation to be stimulated by movement.***

## INFECTION

You will be given antibiotics during and after your operation to guard against the possibility of infection. The risk of infection after you go home is very small. If you develop seepage from your wound or the wound feels very warm and looks red contact your GP or surgeon.

**ANY INFECTIONS ELSEWHERE IN THE BODY SHOULD BE TREATED PROMPTLY. THERE IS A RISK OF IT SPREADING TO YOUR KNEE. LET YOUR DOCTOR KNOW THAT YOU NEED ANTIBIOTIC COVER BEFORE ANY SURGICAL OR DENTAL PROCEDURES SUCH AS TOOTH EXTRACTIONS, MAJOR ROOT CANALS OR ABSCESS DRAINAGE.**

## EXERCISE

This is the most important part of rehabilitation from knee surgery. It is important to continue with the exercise from your physiotherapist. Try to walk a little further everyday. Practice straightening and bending the knee every hour.

When resting, **you must avoid placing pillows under the back of the knee.** These prevent the leg becoming straight and the knee will heal in a bent position over time. Try to bend the knee to at least a right angle (90°).

An exercycle is an excellent way of regaining strength and movement around the knee, and will increase your general fitness as well.

It is important to regularly exercise the knee for at least three months to get the best results.

A physiotherapist will be arranged for you after your surgery. It is extremely important for you to continue your exercise regime after your surgery to maximize the function of your new knee