Patient Information

Total Knee Replacement Guidelines

Physiotherapy Department

Patient Name:

_____

BLACKROCK HEALTH

HERMITAGE CLINIC

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Introduction

Welcome to the Hermitage Blackrock Clinic.

This booklet is designed to give you and your family an understanding of a knee replacement. It aims to explain why the operation is necessary, and also to give you some information about your new knee. It explains the expectations of the healthcare professionals involved in your care after your operation. They all play an important role in helping you achieve a good result.

It is important that you bring this booklet with you when you come to the Blackrock Health Hermitage Clinic for your operation.

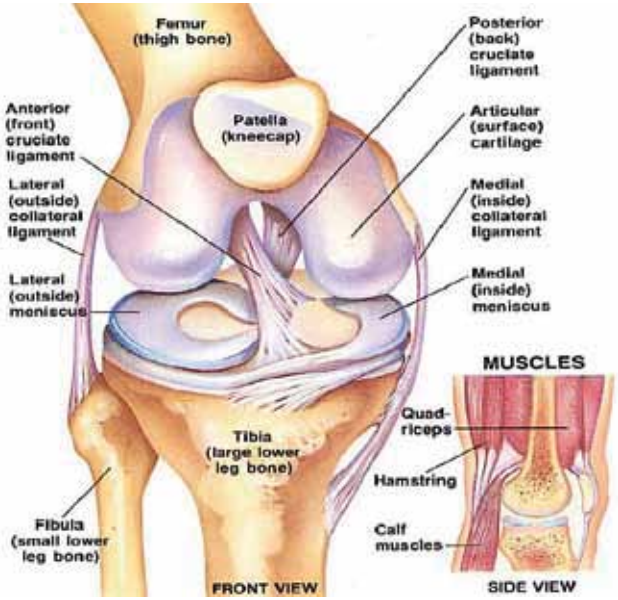
This booklet will also provide you with information that you will need on discharge. You should keep it in a safe place so that you can refer to it daily.

Please be aware the information in this booklet is intended as a **guide only**. The treatment each patient receives varies from hospital to hospital and from consultant to consultant. Not all of the advice and exercises included here may be appropriate for you. Your consultant or physiotherapist will let you know if they want you to do anything differently. If there is anything that you do not understand please ensure to ask your consultant, nurse, or physiotherapist.

Scan this QR code with your mobile phone camera and follow the link to view our patient information videos, which detail everything you need to know about the before, during & after of your upcoming surgery.

The Healthy Knee

The knee is a complex hinge joint. The surfaces of the thigh (femur) and shin bone (tibia) are smooth and lubricated with joint fluid so they can roll, rotate and glide over each other easily. Cartilage covers the bones evenly, allowing smooth movement.



Adapted from KRAMES communications

The knee joint is made stable with the support of the strong **ligaments.** The **menisci** are half moon shaped pads that lie at the bone ends and help shock absorb. **Muscles** move the joint and help reduce the stress on it e.g. quadriceps and hamstrings.

When the **cartilage** wears away, the result is osteoarthritis.

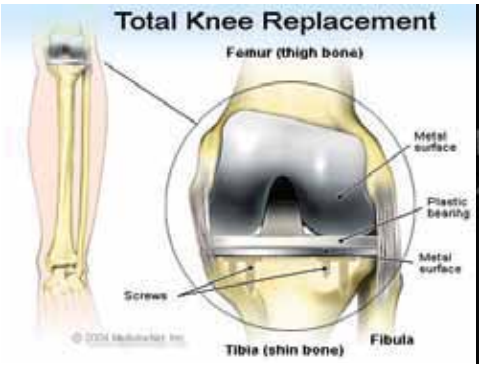
Total Knee Replacement (TKR)

A TKR involves resurfacing the ends of the femur, the tibia and the underside of the patella with man-made components, called prostheses. The knee prostheses are designed to simulate the human anatomy as close as possible.

Depending on the damage to your knee, your surgeon may decide to give **total knee replacement** or a **partial knee replacement** (unicompartmental or unicondylar knee replacement).

The procedure is performed by separating the muscles and ligaments around the knee to expose the joint. The knee is opened, exposing the inside of the joint.

The ends of the thigh bone (femur) and the shin bone (tibia) are removed and sometimes the underside of the kneecap (patella) is removed. The artificial parts are fixed into place. The new knee consists of a metal shell on the end of the femur, along with a metal and plastic cover on the tibia. There are several different designs of knee replacements which can be fitted. Your consultant will discuss the best option for you.



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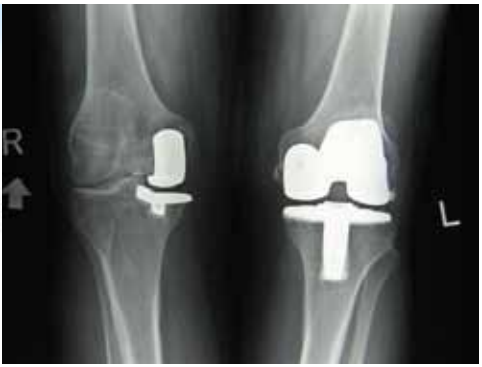


X-ray of partial knee replacement and TKR

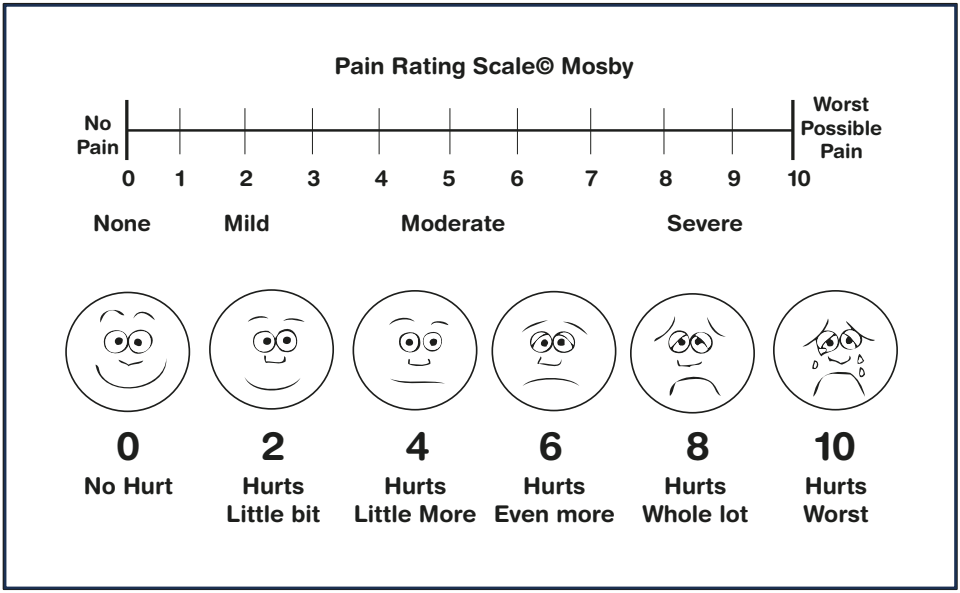
Revision TKR involves replacing some or all of the components of the original TKR due to wear, loosening or infection.

Benefits of a Total Knee Replacement (TKR)

- Reduction in pain and stiffness
- Correct any deformity for example, bow leg or knock knee
- Improved joint movement
- Improves strength (*if you exercise*!)
- Overall, improved quality of life

Pain Rating Scale

A pain scale allows us to measure your pain intensity after your operation. You will be asked numerous times after your operation what number out of 10 you would give your pain. Please make sure you are familiar with the pain scale below so you can rate your pain correctly.



Pre-Assessment Clinic

A pre-assessment is a pre-operative comprehensive medical/nursing assessment to check that you are in the best possible health for your anaesthetic and procedure. It also facilitates improved discharge planning and a shorter stay in hospital.

Your consultant will decide if you are required to attend this clinic 1 – 3 weeks prior to your planned procedure.

At the clinic you and your family will receive education relating to your planned surgery and instruction on how to look after your new joint.

After your operation, and on discharge you will be deemed both medically fit and independent with a mobility aide by both your consultant as well as the physiotherapist. You will need minimal help at home if any. If you live alone, it may be helpful to let neighbors and friends know that you are coming into hospital and that you may require their help with shopping, transport to hospital appointments or in general ask that they visit you more frequently on discharge.

You may feel that you need convalescence on discharge. In some cases, this may not be required or helpful for your recovery, even if you live alone. The pre-assessment nurse or Clinical Nurse Specialist can discuss this in more detail with you. If following discussion with regards convalescence you still feel you would still like to avail of same on discharge, **this must be arranged well in advance of your admission by you and your family, and the details of your discharge plans finalised in advance of your admission.**

A list of convalescence homes can be given to you by pre-assessment or the Clinical Nurse Specialist.

In case you require further information or assistance within the 6 weeks after your operation, you may contact St Luke's ward or the Clinical Nurse Specialist. Where possible, be mindful that your consultant should be your first point of contact after your surgery.

If you have any questions regarding medications that may need to be stopped, please check with your doctor or the nurse in the pre-assessment clinic.

It may be useful to organise some of the following for home, prior to coming into hospital:

- An across the shoulder bag (or equivalent) to keep useful items close at hand e.g. phone, pen, newspaper
- Someone to assist with meals/shopping/driving

The Operation

A knee replacement is a major operation. However, the operation itself is just one part of your treatment. The preparation beforehand and rehabilitation afterwards is just as important.

A knee replacement operation can take 1-2 hours.

You will be seen by the consultant before the operation. The leg to be operated will be marked. This is to ensure the correct leg is operated on. If you have any questions, this might be a good time to ask them. Consent for surgery is also requested at this stage (before you sign a consent form it is important that you have read and understood this booklet).

Anaesthesia

A spinal anaesthetic will be administered in theatre, as well as sedation (you will be asleep). A tight inflatable band (a tourniquet) may be placed across the top of the thigh to limit the bleeding. Your skin will be cleaned with antiseptic fluid and covered with clean towels (drapes).

Surgical Approach

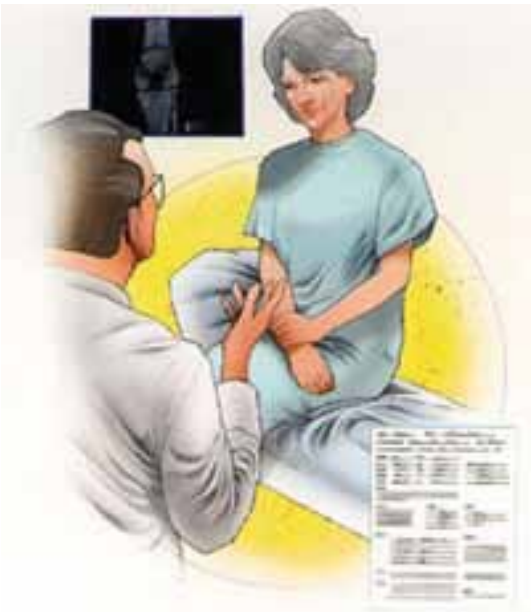
The surgeon will make a cut (incision) down the middle of the knee. The sleeve of tissue around the knee (the capsule), which is then visible, can be cut and the kneecap (patella) pushed to one side. From here, the consultant can trim the ends of the thigh bone (femur) and shin bone (tibia). Some consultants also remove the underside of the knee cap. Using measuring devices, the new artificial knee joints are fitted into position. The implants have an outer alloy metal casing with a plastic (polyethylene) bearing which sits on the tibia. Polyethylene is sometimes placed on the underside of the knee cap.

When the consultant is happy with the position and movements of the knee, the tissue and skin can be closed. This may be done with stitches (sutures) or metal clips (skin staples).

A drain **may** be used, depending on your consultant's preference. This allows any collections of blood or fluid to drain out from the operated joint.
The drain will be removed on the ward the following day.

When you wake up, you will have a padded bandage around the knee. Your spinal anaesthetic can take around 2 hours to wear off, you are usually back on the ward at this stage. It is recommended that as soon as your sensation is returning and you have some movement that you request some pain relief.

An x-ray and a blood test may be taken in the days after your surgery.



Adapted from AAOS

Complications after your Operation

As with all procedures, surgery carries some risk & complications. The British Orthopaedic Association (2012) lists the following risks:

Common (2-5%)

Pain: the knee will be sore after the operation. If you are in pain, it is important to tell staff so that medicines can be given. **Please use your call bell to look for pain relief if your nurse is not in the room.** Pain will improve with time. Rarely, pain will be a chronic problem and may be due to any of the other complications listed below, or, for no obvious reason. Rarely, some replaced knees can remain painful.

Bleeding: this is usually small and can be stopped in the operation. However, large amounts of bleeding may need a blood transfusion or iron tablets. Rarely, the bleeding may form a blood clot or large bruise within the wound which may become painful and require an operation to remove it.

Blood Clots: a DVT (Deep Vein Thrombosis) is a blood clot in a vein. The risks of developing a DVT are greater after any surgery (and especially bone surgery). DVT can pass in the blood stream and be deposited in the lungs (a pulmonary embolism – PE). This is a very serious condition which affects your breathing. Your doctor may give you medication through a needle to try and limit the risk of DVTs occurring. Some hospitals will also ask you to wear stockings on your legs, while others may use foot pumps to keep blood circulating around the leg. Starting to walk and moving early is one of the best ways to prevent blood clots from forming.

Knee Stiffness: may occur after the operation, especially if the knee is stiff before the surgery. Manipulation of the joint (under anaesthetic) may be necessary.

Prosthesis wear: With modern operating techniques and new implants, knee replacements last many years. In some cases, they fail earlier. The reason is often unknown. The plastic bearing is the most commonly worn away part.

LESS COMMON: (1-2%)

Infection: You will be given antibiotics at the time of the operation and the procedure will also be performed in sterile conditions (theatre) with sterile equipment. Despite these infections still occur (1 to 2%). The wound site may become red, hot and painful. There may also be a discharge of fluid or pus. This is usually treated with antibiotics and an operation to washout the joint may be necessary. In rare cases, the prostheses may be removed and replaced at a later date. The infection can sometimes lead to sepsis (blood infection) and strong antibiotics are required. ***If you attend your GP in the weeks following surgery and they commence you on an antibiotic for an infection in your knee, it is extremely important that you inform your consultant or the clinical nurse specialist immediately, so that a review can be organised.***

RARE: (<1%)

PE: a pulmonary embolism is the spread of a blood clot to the lungs and can affect your breathing. This can be fatal.

Altered leg length: the leg which has been operated upon may appear shorter or longer than the other.

Altered wound healing: the wound may become red, thickened and painful (keloid scar) especially in Afro-Caribbeans.

Joint dislocation: if this occurs, the joint can usually be put back into place without the need for surgery. Sometimes this is not possible, and an operation is required, followed by application of a knee brace.

Nerve Damage: efforts are made to prevent this; however damage to the small nerves of the knee is a risk. This may cause temporary or permanent altered sensation around the knee. There may also be damage to the Peroneal Nerve, this may cause temporary or permanent weakness or altered sensation of the lower leg. Changed sensation to the outer half of the knee may be normal.

Bone Damage: bone may be broken when the prosthesis (false joint) is inserted. This may require fixation.

Blood vessel damage: the vessels at the back of the knee may rarely be damaged and may require further surgery.

Death: This very rare complication may occur after any major surgery and from any of the above.

Avoiding a Fall

You have an increased risk of falling after your operation as your muscles are weak and you may have poor balance. A fall in the first few weeks after surgery can damage your new knee and may result in the need for further surgery. A physiotherapist will get you out of bed the first time after your operation. Falls prevention leaflets are available and should be given on admission, please take time to read these carefully.

Do Not Get Out Of Bed By Yourself

Orange arm bands may be placed on your wrist after your operation as this denotes that you are at a high risk of falling at this time.

Your physiotherapist will practice the stairs with you before you are discharged. When at home use a stick/crutch, handrail or have someone with you if you feel the need until your flexibility and balance improves.

Do not walk on slippery floors in socks or tights, and avoid wet floors especially bathroom floors.

Suitable Clothing and Footwear

Following joint replacement, all patients are encouraged to dress in their every-day clothes as soon as is practical, usually once you start mobilising. We find that this promotes a feeling of wellbeing and independence among our patients, encouraging them along the path of recovery and rehabilitation.

Loose, comfortable clothing is advised. Physiotherapy and nursing staff will need to be able to access the knee joint for treatment purposes so please ensure that loose trousers or tracksuit bottoms are worn.

We recommend comfortable supportive shoes with flat heels. Trainers or runners are ideal but not necessary. Flip flops, sandals and any footwear, open at the back are **not** recommended, until you are mobilising independently and

without the aid of crutches or sticks.

- Wear well-fitting slippers/shoes **with a back**, as slippers that are too big or small will increase your risk of falling.
- Wear stretchable footwear as the operated leg will temporary swell after surgery.

PHYSIOTHERAPY

When muscles are not used, they become weak and do not perform well in supporting and moving the body. Your leg muscles are probably weak because you haven't used them much due to your knee problems. The surgery can correct the knee problem, but the muscles will remain weak and will only be strengthened through regular exercise. You will be assisted and advised how to do this, **but the responsibility for exercising is yours.**

It is important that you do the exercises in this section, as they aim to help you achieve a better result after your knee replacement. **We advise that you start these exercises before your operation, at least once a day if possible.**

Visitors may be requested to leave during your physiotherapy sessions.

Deep breathing and coughing exercises

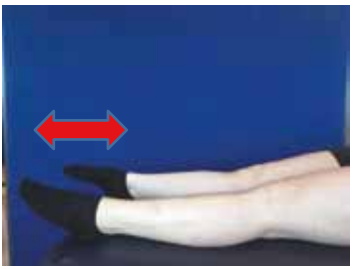
To help keep your lungs clear after surgery you should breathe deeply and cough frequently.

- **Deep breathing** – when sitting or lying, place your hands on the sides of your lower ribs. Slowly breathe deeply making sure your ribs move under your hands. Relax and breathe out slowly. Repeat 5 times every hour. This will promote lung expansion.

- **Coughing** – breathe in deeply and cough. Repeat once every hour on the night of surgery or as instructed by your nurse/physiotherapist. This will help keep your lungs clear.

Bed exercises

Exercise 1: Ankle Pumps

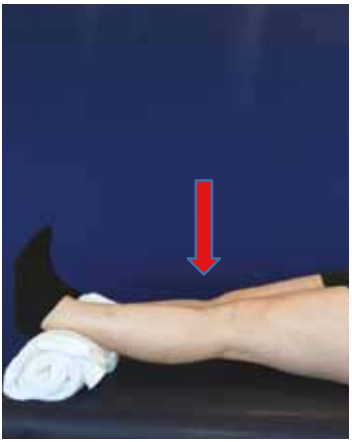


Move your foot up and down at the ankle 10 times. This should be done regularly 2-3 times per hour on the day of your surgery. Continue this exercise 10 times, 3-4 times per day until you are fully recovered, and your ankle and lower-leg swelling has subsided.

Exercise 2: Static Quads

Tighten the muscle on the top of your thigh. Push the back of your knee downward into the bed. Hold for 5 seconds. Repeat 10 times, 3-4 times daily.

Exercise 3: Knee Extension

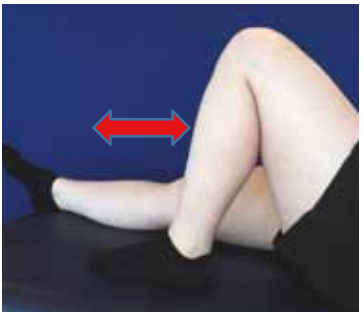


Place your heel on a small rolled up towel. Tighten your thigh. Try to fully straighten your knee and to touch the back of your knee to the bed. Hold fully straight for 10 seconds. Repeat 10 times.

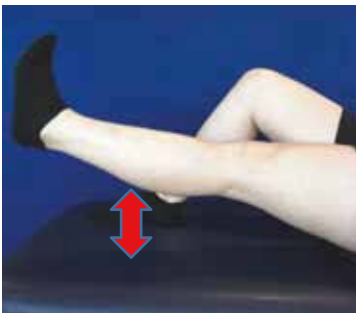
You should leave your leg in this position for 20 minutes and repeat twice a day. You are also encouraged to put your foot on a foot stool when sitting out for long periods of time; this reduces swelling and helps to maintain knee extension. **Do not** rest with support under the knee joint.

Exercise 4: Straight Leg Raise

Tighten the thigh muscle with your knee fully straightened on the bed. Lift your leg several inches of the bed. Hold for 5-10 seconds and gently lower to bed. Repeat 10 times.



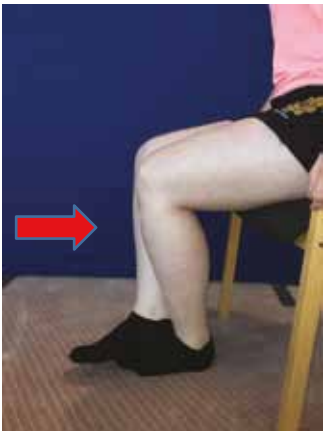
You also can do a leg raise in sitting. Tighten your thigh muscle, lift your foot from the floor and straighten your knee. Hold for 3-5 seconds. Repeat 10 times.



Exercise 5: Knee Extension

You need to bend your knee daily. Bend your knee as much as possible by sliding your foot on the bed. Placing a plastic bag under your heel will assist with this exercise. Keep your knee in a maximally bent position for 5 seconds and then straighten. Repeat 10 times. Your physiotherapist will measure your knee bend prior to your discharge.

While sitting at the bedside or in a chair with your thigh supported, place the foot of the operated leg on the floor and slowly bend your operated knee back as far as you can. Only then place your un-operated leg in front of the operated leg and try to bend the operated knee further. Keep your knee in this position for 3-5 seconds. Repeat 10 times.



Please note that exercises 1-5 to be done on a bed. Do not do on the floor.

Ice

Ice (cryotherapy) may be used during your hospital stay and should be used at home to help reduce the pain and swelling in your hip. Pain and swelling will slow down progress with your exercises, so try to use ice to counteract this. Your sensation may be decreased, so use extra care when applying ice. Do not place ice directly onto your skin, put a towel/pillowcase between the ice and your skin. At home you can ice your hip regularly throughout the day. **Your ice cuff may be brought home with you, on discharge.**

Water-based Rehabilitation (Consultant Specific)

You must have clearance from your consultant before commencing water-based activities and have a Fully Healed wound.

Water-based rehabilitation is a patient driven, self-motivated program to encourage patients to strengthen their muscles following surgery. It has particular application to the lower limb and spine. Core muscle strengthening can optimally be achieved by walking in water several days a week. This permits strengthening of the core back, abdominal and lower limb muscles. Patients who undergo knee replacement are encouraged to walk in water several days a week. The optimal results are achieved by patients who spend at least 30 min, 5 days a week. This ensures that any pre-operative muscle weakness is rapidly rehabilitated helping the patient regain independent gait and confidence much more quickly than simply by doing exercises or attending physiotherapy in isolation. You must use a pool with graduated step access. The patient must be central to this process and actively involved to achieve the best outcome.

Sitting and Getting in/out of a Chair

You must sit in a firm high chair with arms. In sitting your knees should be lower than your hips, use cushions to help with this. On transferring from sitting to standing, push up on the arms of the chair to stand. Keep your operated leg slightly out in front.

To sit:

Step 1) Walk backwards until you feel the chair touch the back of your legs.

Step 2) Grasp the arm rests. Keep your operated leg slightly in front of you and lower yourself gently into the chair.

Step 3) Once you are sitting comfortably in the chair, slide back to rest on the chair back.

Stairs Technique

Going Up-Stairs

- Use crutches/sticks on the stairs
- Stand close to the stairs. Hold onto the handrail with one hand and your crutch/stick with the other
- First step up with the un-operated leg
- Then step up with the operated leg, bring your crutch up onto the same step
- Always go one step at a time (unless otherwise specified)

Going Downstairs

- First put your crutch on the step below you
- Then take a step down with your operated leg
- Then step down with the un-operated leg
- Always go one step at a time (unless otherwise specified)

"Up with the good, and down with the bad", always step up with the good leg first and step down with the operated leg first.

Once you are independent with your exercises and mobility you may be discharged from the physiotherapy service.

MULTIDISCIPLINARY INFORMATION

The following is a guideline of what is expected of you during your stay in the Hermitage Clinic.

On Admission

On admission your details and past medical history will be taken by the nursing and medical staff. You will shower with special soap the evening/ morning before your surgery at home prior to your admission.

Expected length of hospital stay is 1 – 2 days.

Day of your Operation **(Day 0)**

- A small drain from the operation site may be in place to clear excess fluid from the knee joint for 24 hours.
- You will have a padded dressing/bandage around your knee. You will receive regular pain medication from your nurse; however you may still have some pain. ***Please tell a nurse if you have pain.*** Use the scale on page 6 to score your pain.
- There will be A-V impulse foot pumps on your feet to aid circulation in your lower limbs. Compression stockings may be worn on both legs to aid circulation, depending on your consultant's preference.
- Your medical observations (e.g. blood pressure, pulse) will be taken regularly. You may be wearing an oxygen mask. You will have a needle/ cannula in your arm to give you fluids.
- You will return to the ward, in some cases patients may need to be cared for in the high dependency unit but this is rare.
- You will be given something to eat.
- You will remain in bed until seen by the physiotherapist, if possible, you may be mobilised on Day 0, this is dependent on your sensation returning from the spinal anaesthetic, a safe blood pressure and your Consultants preference. A nurse will assist with your hygiene needs, and assist you into your own clothes if you feel up to it.
- Cryotherapy (ice) will be used to control swelling.
- **Physiotherapy:** You should do your own deep breathing exercises hourly (page 13). Start ankle pumps (exercise 1) and static quads (exercise 2). Do not place anything under the knee joint.

- If you feel weak or faint after surgery please call for assistance.
- Do not mobilise without assistance.
- **Physiotherapy:** will assist you the first time you get up and walk on Day 0 or Day 1. This will be with a frame initially.

The sequence for walking is:

1. Move the walking aid forwards first.
2. Then step with the operated leg.
3. Finally step with the un-operated leg. *You may be progressed to sticks/crutches.*

- Your exercise programme:
  - Ankle pumps (exercise 1)
  - Static quads (exercise 2)
  - Knee extension (exercise 3)
  - Straight leg raise (exercise 4)
  - Knee flexion (exercise 5)

- A Continuous Passive Motion (CPM) machine, maybe requested by your consultant. This is used to increase joint range of motion.
- You may sit in a chair under the direction of your physiotherapist/nurse.

Day 1

- You can wash with assistance today and should be in your own clothes.
- You may eat as you feel able.
- Your drains and bandage will typically be removed unless requested otherwise by your consultant.
- You may have bloods taken today.
- You will have a needle/cannula in place for fluids and antibiotics; these will be administered by your nurse as prescribed.
- Your pain will continue to be monitored (using the pain scale) and pain relief given by the nursing staff as appropriate. You must continue to wear the AV-impulse foot pumps at night.

- **Do NOT** get out of bed on your own, as your leg may feel numb and/or weak after your operation.
- **Physiotherapy:** With the assistance of a physiotherapist you will mobilise a short distance with a walking frame, progressing to sticks or crutches if you have not already done so on Day 0.

The sequence for walking is:

1. Move the walking aid forwards first.
2. Then step with the operated leg.
3. Finally step with the un-operated leg. *You may be progressed to sticks/crutches.*

- Your exercise programme:
  - Ankle pumps (exercise 1)
  - Static quads (exercise 2)
  - Knee extension (exercise 3)
  - Straight leg raise (exercise 4)
  - Knee flexion (exercise 5)

- A Continuous Passive Motion (CPM) machine, maybe requested by your consultant. This is used to increase joint range of motion.
- You may sit in a chair under the direction of your physiotherapist/nurse.
- Any remaining drains will be removed today.
- You are encouraged to sit out of bed for meals with assistance.
- Your bandage will be checked and changed as appropriate.
- You may have bloods and an x-ray taken today, depending on your consultant preference.
- You may have a shower with the assistance of nursing staff. Please ensure your compression stockings are re-applied to both legs after your shower.
- Cryotherapy (ice) will continue to be used.
- **Physiotherapy:** If not done so already you will be progressed to walking with crutches/sticks. Your physiotherapist will advise you regarding your mobility.
- Please walk with a nurse/health care assistant if you are unsteady.
- You may do the stairs today with the assistance of a physiotherapist.
- You may get out of bed independently today, if you need assistance, please ask a nurse or a care assistant.

Exercise programme: continue as per Day 1.

You should be able to:

- Straight leg raises
- Bend knee to 90°

A CPM may still be used until you achieve a 90° knee bend, as per your consultant's protocol.

You may be discharged on Day 1 if you have achieved all your Physiotherapy Goals, **and** your consultant is happy for you to be discharged.

You will be provided with a physiotherapy discharge letter to give to your physiotherapist. It is your responsibility to organise your physiotherapy following discharge.

Day 2 until Discharge

- You will continue to receive pain relief throughout your stay. You will also receive anticoagulants (blood thinners).
- If your bowels have not moved by today, please discuss this with your nurse.
- Cryotherapy (ice) will continue to be used.
- **Physiotherapy:** You should be walking independently with crutches/ sticks. You should aim to be able to transfer in and out of bed, and on and of a chair independently. Your physiotherapist will review this.
- You should be aiming to do the stairs with your physiotherapist if you have not already completed this on day 1.
- The distance you walk should increase daily e.g. around the nurses' station, up and down the corridor or out to the main reception.

Exercise programme: continue with all your exercises.

You should be able to:

- Straight leg raises
- Bend knee to 90°
- A CPM may still be used until you achieve a 90° knee bend

Physiotherapy Discharge

Physiotherapy goals:

- You should be independent in using crutches or sticks.
- You should be independent on the stairs.
- You should be independently getting in and out of bed.
- You should be independent with your exercises.

Aiming for:

- A straight leg raise
- Knee flexion of > 90 degrees
- A fully straight knee

If you can do all of the above AND you have been cleared by your consultant, you may go home.

You will be provided with a physiotherapy discharge letter to give to your physiotherapist. It is your responsibility to organise your physiotherapy following discharge.

On Discharge Physiotherapy Out-Patient Classes Are Available in The Hermitage Clinic

Total Knee Replacement Exercise Classes

- Group exercise classes are provided by the Hermitage out-patient physiotherapy department.
- Patients can commence these classes 1-2 weeks post discharge from hospital.
- All exercises are aimed to further progress your rehabilitation and independence.
- Classes include one individual physiotherapy session and 5 group exercise classes.

Please contact the Physiotherapy Department (01-645 9012) if interested in booking into these classes.

Nursing Discharge

When you leave the hospital you will be given an appointment to attend the rooms of your consultant, usually 2 and/or 6 weeks after the operation. This is for a routine check-up which will make sure you are progressing satisfactorily. Your dressing and wound will be checked before you leave and you will receive your prescription. You will also be given instructions about removal of your sutures or clips. Patients typically spend 1-2 days in hospital. If you are not happy with any aspect of your discharge, please discuss this with your nurse. You will need to arrange for someone to collect you. You are encouraged to vacate your room at 11am on the morning of discharge.

Wound Care

Your dressing is generally not changed before you leave, and the primary dressing applied in theatre stays on for 2 weeks. The dressing generally used is Aquacel surgical which is a waterproof dressing. The stitches or staples will be removed approximately 2 weeks after surgery by your consultant, community nurse or GP (a spare dressing and clip remover will be supplied to you on discharge). Your dressing should stay on as long as possible to promote wound healing. Be vigilant for any signs of infection to the wound such as **increased pain to the wound site, redness, pus or any foul-smelling discharge, a temperature or feeling generally unwell.** Contact your consultant immediately if this occurs.

Anticoagulants

On discharge you will be prescribed anticoagulation medication to prevent DVT (deep vein thrombosis). A DVT occurs when a clot forms in the large veins in the legs. **Signs and symptoms of DVT are increasing pain on movement of foot/leg, swelling, redness and the calf area may be hot to touch.** Your consultant will decide what anticoagulant medication you will be discharged home with. If your consultant has requested that you wear compression stockings, please check with your nurse how long you should continue to wear them for. Your nurse should supply a spare pair on discharge, so you can wash and alternate the stockings. If you have already been taking Aspirin, Warfarin or Plavix prior to surgery you will restart this as per your surgeons instructions.

Pain

It is normal to experience a certain amount of pain as you recover. On discharge a prescription for pain relief will be given to you. This pain relief is a continuation of what you have been taking in hospital, so it is important that you get your prescription filled right away so that there is no lapse in your pain management. **Remember that ice is an excellent method of reducing swelling and managing pain**. Generally, you will be discharged on a combination of anti-inflammatory medications and pain medications. If you have a sensitivity or allergy to certain medications alternative medications will be prescribed. If the pain relief you have been prescribed are not working, please contact the Clinical Nurse Specialist or St Luke's ward in Hermitage Medical Clinic and also have a phone/fax number for your pharmacy ready so that we can organise alternative pain relief for you.

Showering and Bathing

It's easiest to use a walk-in shower at first. You will need a waterproof dressing. It is best practise to shower only for the first 6 weeks after your operation (i.e. do not use a bath). Dry the wound by patting it with a clean towel. Speak to your nurse if you require more advice.

Getting Dressed

You will be able to get dressed as normal. You will need assistance to put on/of your compression stockings at home.

Getting into a car

Helpful to hold onto the door frame or the seat back for support. If you use the door for support, make sure that someone is holding it open for you. You can use the un-operated leg to lift in the operated leg.

Going Home

The following tips can make your homecoming more comfortable and safe:

- Remove any rugs that could cause you to slip. Securely fasten electrical cords around the perimeter of the room.
- Install a shower chair, gripping bar, and raised toilet in the bathroom as needed.
- Use assistive devices where needed such as a long-handled shoehorn, and a Handi Reacher (grabber) to avoid bending over too far. These are available for purchase from the physiotherapy department.
- It is recommended to have all essential items located at an easily accessible height.
- Use ice and elevation to control the swelling in your knee.

Getting Active Again

You should be able to resume most normal activities approximately 6 weeks following surgery. Some pain with activity and at night is common for several weeks after surgery.

Continue to use ice as appropriate.

Your activity program should include:
A graduated walking program to slowly increase your mobility, both in your home and outside. Continue to use your crutches/sticks for the first 6 weeks. Don't be afraid to put normal weight through your legs as you walk. Resuming other normal household activities, such as sitting and standing and climbing stairs.

Specific exercises several times a day to restore movement and strengthen your knee (exercise 3, 4 & 5). You should be able to perform the exercises without help. However, you can contact your local physiotherapist to assist you regain movement, strength and review your mobility.

When you are no longer really using your stick/crutches and you are not limping you can start to walk unaided (usually after 6 weeks). It's a good idea to take a crutch/stick with you, especially if you are walking longer distances or in crowded places. Your consultant/physiotherapist can provide further advice.

Driving

Driving usually begins when your knee bends sufficiently so you can sit comfortably in your car and when your muscle control provides adequate reaction time for braking and acceleration. Most individuals resume driving approximately 6 weeks after surgery, once you have been reviewed by your consultant. Your insurance company may need to be contacted.

Sex

Sexual intercourse can usually be resumed whenever you feel ready. Please discuss with your consultant.

Work

Your return to work (if applicable) depends on how physically demanding your job is. Your consultant will advise you about this.

Travel

If you plan to travel a long distance in the first 6 weeks or so, you should seek medical advice first because of the increased risk of DVT (deep vein thrombosis) linked to sitting for long periods. It may be helpful to contact your travel company to make arrangements for assistance or extra leg room. Please remember your prosthesis may be picked up by airport metal detectors, so it is advisable to carry written proof of your knee replacement. Your consultant or GP can give you more advice about this.

Sports and Hobbies

After 3 months you may be able to return to active or sporting hobbies, such as gardening or golf. Your consultant can give you more specific advice. You will be advised to avoid some types of activity, including jogging and high-impact sports, for the rest of your life.

With normal use and activity, every knee replacement develops some wear in its plastic cushion. Excessive activity or weight may accelerate this normal wear and cause the knee replacement to loosen and become painful. With appropriate activity modification, knee replacements can last for many years.

Please discuss kneeling and squatting with your consultant.

Dangerous Activity After Surgery jogging or running – contact sports jumping sports – high impact aerobics
Activity Exceeding Usual Recommendations After Surgery vigorous walking or hiking – skiing tennis – repetitive lifting exceeding 50lbs. repetitive aerobic stair climbing
Expected Activity After Surgery recreational walking – swimming – golf – driving light hiking – recreational biking – ballroom dancing normal stair climbing

Adapted from AAOS

In The Long Term

The risk of infection after your TKR is very low. However, if at any time (even years after surgery) an infection develops notify your GP (such as sore throat or pneumonia). Antibiotics should be administered promptly to prevent the occasional complication of infection localizing in the knee area. This also applies if any teeth are pulled or dental work is performed. Inform your GP or dentist that you have had a joint replacement.

All information adapted from:

- The American Academy of Orthopaedic Surgeons, 2012, www.aaos.org
- Data bases courtesy of the Irish Society of Chartered Physiotherapists (ISCP) and the UK Chartered Society of Physiotherapy (CSP).
- Arthritis Research Campaign. (For further information contact www.arc.org.uk)
- British Orthopaedic Association (BOA), 2012, www.orthoconsent.com
- Krames communication
- www.medicinenet.com

TKR Patient Exercise Programme

Please tick the boxes as you complete each exercise every day. Remember you must repeat your exercises at least 3 to 4 times daily.

You can start these exercises before your admission and you must continue these exercises when you go home.

Daily Exercises (√)	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Ankle Pumps x 10 reps* hourly	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Static Quads x 10 reps hourly	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Static Glutes x 10 reps hourly	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Knee Flexion x 10 reps x 4 daily	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Knee Extension x 20mins x 3 daily	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
Straight Leg Raise x 10 reps x 4 daily	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

**Reps = Repetition*

Achievements Daily	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Knee Flexion **(aim for 90°)**						
Knee Extension **(aim for 0°)**						
Straight Leg Raise						
Physio Initials						

Notes and Questions

Important Notes Post Discharge from Hospital

Removal of Sutures: _____

Consultant Follow Up Appointment: _____

Other Notes: _____

Contact Details:

If after leaving hospital you have any concerns about your surgery your first point of contact should be your consultant, followed by the ward where you had your surgery. If your concerns relate to your mobility or exercises, please contact the physiotherapy department.

Your Consultant: _____

Consultant Contact Number: _____

Clinical Nurse Specialist: _____

Your Ward: St Luke's Ward

Ward Contact Number: (01) 6459 320

Physiotherapy Department Contact Number: (01) 6459 012

BLACKROCK HEALTH

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