



Total Knee Replacement

A Guide for Patients

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Introduction

The Spire Yale hospital has taken a unique & proactive approach to the care, recovery & rehabilitation of its joint replacement patients. The patient & the various health care professionals will equally share the responsibility for their care.

Rapid Recovery is a patient focused experience commencing from the decision to operate in clinic and finishing with full recovery at home. Fundamental to the success of the patients operation, is the shared responsibility for your treatment, recovery and rehabilitation. The programme provides the knowledge and skills to carry out that responsibility and develop independence.

This booklet has been designed by the orthopaedic team to provide you, your family and friends with information about your Knee Replacement and what to expect before, during and after your stay in hospital.

This advice is provided to help you prepare for surgery, recovery and rehabilitation. You must **read this booklet thoroughly** before your surgery and write down any questions you may have. You should then bring it with you when you come to the hospital for any appointments before your operation, on admission for surgery and any follow up appointments.

Information

The Knee

The knee is a hinge joint formed by the tibia (shinbone), femur (thigh bone) and patella (kneecap). The ends of the bones in the joint are covered with cartilage, a tough lubricating tissue that helps cushion the bones during movement. Arthritis is a condition that affects joint cartilage and it develops over years of constant motion and pressure in the joints. As the cartilage continues to wear away, the joint becomes increasingly painful and difficult to move. There are over 100 different kinds of arthritic conditions that can affect the human body and there are millions of people who are affected with arthritis each year.

Osteoarthritis – What is it

This is a common disease affecting the joints in the body, most commonly the knee and hip. The joint surfaces, which are covered in smooth cartilage, become damaged and gradually thin and roughen -this produces pain. Eventually, there may be no cartilage left in some areas of the joint. There are other diseases which cause joints to be replaced because of pain, such as rheumatoid arthritis.



A Healthy Knee Joint



An Arthritic Knee Joint

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Treatments such as the relief of pain, physiotherapy exercise, support braces, and weight reduction can help control the symptoms of osteoarthritis for a time. When these treatments fail to provide adequate relief from pain, total joint replacement may be recommended. Your surgeon will have assessed your individual condition and prescribed a treatment that will give you the best results.

Total Knee Replacement - What is it? - Is it for you?

The knee is made up of the lower end of the thigh bone (femur) which rotates on the upper end of the shin bone (tibia) and the kneecap (patella), which slides in a groove on the end of the femur. Large ligaments are attached to the femur and the tibia and provide stability. The long thigh muscles give the knee strength.

Total knee replacement is an operation to replace the damaged or worn part of the knee

with artificial parts (the prosthesis). Your new knee will consist of a metal shell on the end of your thigh bone, a metal and plastic spacer on the upper end of the shin bone and if needed, a plastic button on the kneecap.



A Total Knee Replacement

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Total knee replacement is a planned operation which means it is not a matter of life or death. There are alternatives. The decision to have the operation is made by you, following discussion with your doctor. You must weigh up the potential benefits against the possible complications. You will not be offered the operation unless the benefits outweigh the risks. The decision to have surgery should be made following discussions with your family, General Practitioner and Orthopaedic Consultant. The real success of your knee replacement, however, depends partly on you, especially your motivation, exercises and knowing your limitations for a specified period of time after the surgery.

Partial (unicompartmental/unicondylar) Knee Replacement

A partial knee replacement, as the name suggests, only replaces the worn part of the knee. You must fulfil certain criteria to have this operation.



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Oxford Partial Knee Replacement

You May Benefit From A Knee Replacement If:

- Severe knee pain limits your everyday activities including walking, going up or down stairs and getting in and out of chairs
- You find it hard to walk any distance without significant pain and you may use a walking aid
- You have moderate or severe knee pain when resting either day or night
- You have long term knee inflammation or swelling that does not improve with rest or medication
- Your knee is deformed
- There is knee stiffness and an inability to bend and straighten your knee

Alternatives to Surgery

Prior to offering you surgery to replace your knee your GP and Surgeon will discuss with you other ways to help to control the pain and restrictions you may have with an arthritic joint, and these may include :

- Use of painkillers
- Use of anti-inflammatory non-steroidal tablets
- Trying to reduce your weight, if you are overweight
- Physiotherapy
- Other surgery e.g. arthroscopy (a 'key hole' operation to look into your knee, using a small camera and washing out any debris from inside the knee)

In summary, total knee replacement is recommended by the Consultant Orthopaedic Surgeon when the knee pain becomes unbearable and is not responding to any other form of treatment and your lifestyle is greatly restricted.

What Can Be Expected From a Total Knee Replacement?

More than 90% of individuals who undergo total knee replacement experience a dramatic reduction of knee pain and significant improvement in the ability to perform common activities of daily living. However, an artificial knee is not a normal knee nor should it be expected to be as good as a normal knee. Therefore activities that overload the artificial knee must be avoided.

Expected Activities After Surgery

The aim of surgery is for you to be able to resume your normal everyday activities without pain, including climbing stairs and walking. It will also be possible to participate in recreational walking, swimming, golf, driving, light hiking, cycling and ballroom dancing.

Activities not suitable include jogging or running, contact sports, jumping sports and high impact aerobics. The reasons for this are that the knee replacement will wear out more quickly or an injury involving the replacement may be difficult to treat.

What Complications Can Occur?

This section is not meant to frighten you but to help you to make an informed decision on whether to have a knee replacement and help you to cope better with any complications that may occur. It is important that you understand the possible risk linked with any major operation and total knee replacement is no exception. Total knee replacement is 90% successful but 10% of patients can develop complications.

Illness, smoking and obesity may increase the potential for complication. Though uncommon, when these complications occur, they may delay or limit your full recovery.

Infection

The wound on your knee can become inflamed, painful and weep fluid, which may be caused by infection. The majority of wound infections can be treated by a course of antibiotics and often settle down following treatment. Deep wound infection where the new knee is infected may require the new knee to be removed and your knee replacement re-done at a later date.

You can help prevent infections by keeping your wound clean and dry. The wound dressing should normally not be disturbed, and should only be redressed by your Nurse. You should also inform your doctor if you have a skin or urine infection, as you may need antibiotics. Serious infection occurs in less than 2% of patients.

Deep Vein Thrombosis (DVT)

This is the term used when a blood clot develops in the deep veins in the back of your lower leg. When detected the treatment may involve blood thinning injections followed by a course of blood thinning tablets. There is about a 1.4 % risk of developing a DVT following surgery.

To help prevent DVT, you will be given foot and ankle exercises, to do immediately after your operation. Walking and early mobility will aid your circulation and significantly reduces the risk of DVT. Nursing staff may give you calf pumps to wear and prescribe medication to reduce the risk of DVT.

Pulmonary Embolism (PE)

This can happen when a part of a blood clot formed in your leg vein breaks off and travels to your lung. The risk of developing a life threatening pulmonary embolism is low. Treatment is the same as DVT but requires a longer hospital stay.

Loosening of the Prosthesis

Although prosthesis design and materials, as well as surgical technique, have improved, wear of the weight-bearing surface or loosening of the components may occur between 10-15 years after surgery. Excessive activity or being over-weight may accelerate this wear process. Loose, painful artificial joints can usually, but not always be replaced. Results of a second operation are not always as good as the first, and the risks of complications are higher.

Pre-Admission Assessment

It is important that you are assessed prior to your surgery to reduce the risks as much as possible. Most people will have their first assessment for their fitness for surgery with the preoperative nurse in a specialist pre-admission clinic. You will have a date for your operation at this time.

During your assessment, the pre-operative nurse will ask you about your general health, medical history, previous anaesthetics and if there were any problems. A record will be made of any family history of anaesthetic problems, medicines, pills, inhalers or homeopathic remedies that you use, allergies, smoking, alcohol and whether you have any loose, capped or crowned teeth.

You will have investigations, such as blood tests, a heart trace (ECG) and x-rays (if indicated). This helps your anaesthetist consider any medical problems, which may either effect the risks to yourself or the likelihood of complications from the anaesthetic or surgery.

The pre-operative nurse will give you time to ask questions about the possible complications and give advice and education on your activities following surgery. They will also give you questionnaires to complete.

Home Support

During pre-admission assessment we will ask if you can choose a coach – a friend or family member who can support you throughout your time leading up to surgery, during your time in hospital and once you get home after your operation. Please identify someone who can fulfil this role. It is important to have this support as it will help your rehabilitation. Please read separate 'Rapid Recovery Home Support Information Leaflet' and ask prospective "helpers" to read it.

The Health Professionals you may meet:

Physiotherapist

You will see a physiotherapist during your pre-assessment visit.

The physiotherapist will show you exercises you will need to commence before your operation and teach you how to use the walking aids you will need after your operation. (See pre and post-op exercises).

Anaesthetist

Anaesthetists are doctors who are responsible for giving your anaesthetic, controlling your pain and for your wellbeing and safety throughout your surgery. You will be assessed at pre-assessment to understand if you need to see an anaesthetist prior to your admission for surgery. As there are a number of different ways in which you can be anaesthetised, you will learn about the different options. It is important you read the information about your anaesthetic in this booklet, so you have an idea of the preferred anaesthetic used at Spire Yale. You will meet your anaesthetist on the day of surgery and finalise the type of anaesthetic most appropriate for you and discuss any issues you would like to raise.

Surgeon

You will see your surgeon at your initial consultation and they will discuss with you the need for surgery. After your consultation, you will receive a date for your surgery.

Pre-assessment Nurse

The nurse will explain what to expect on your arrival at the hospital, things you need to bring with you for your stay and explain how you will go to theatre and return to the ward. The nurse will talk to you about drips and drains you may have in place and x-rays taken after surgery. You will be told about MRSA and the importance of personal cleanliness prior to surgery.

You may see a short film from one of the surgeons from the hospital, which will explain in detail, your operation and the risks and benefits to you.

During your hospital stay, a nurse will escort you to theatre for your planned operation and care for you following your surgery. The Nurse will monitor your progress, check your wounds and care for you until discharge home. On discharge they will ensure that you have all necessary paperwork, dates for further appointments and all medications.

They will also discuss the importance of pain assessment and the most appropriate methods for treating your pain after your operation.

Pharmacist

You will also see a pharmacist during your hospital stay to review your medication.

Your Anaesthetic

There are various choices of anaesthetic for your surgery. Both our experience and that of others has shown an excellent method of anaesthetic for your recovery, rehabilitation and speedy journey home is a spinal anaesthetic, a type of 'regional anaesthetic'.

Regional Anaesthesia

This means you will be numb from the waist down (the 'region' anaesthetised) and feel no pain during the operation and you can also be asleep if you wish. It is different from a 'general' anaesthetic where you are unconscious with a breathing tube in your throat. There are usually 2 types of regional anaesthesia:

1. Spinal Anaesthetic

Local anaesthetic is injected near to the nerves in your lower back.

- You are numb from the waist downwards.
- You feel no pain, but you remain conscious.
- You can also have drugs, which make you feel sleepy and relaxed (sedation) or completely asleep.

-

It will take 4-6 hours before normal movement in your legs returns.

Advantages – compared to a General Anaesthetic

- You should have less sickness and drowsiness after the operation and may be able to eat and drink sooner.
- You will be able to sit out of bed and take some supervised steps on the same day as your operation.
- It helps to avoid blood clots in the legs and lungs.
- There may be less bleeding during surgery and you will be less likely to need a blood transfusion.
- You remain in full control of your breathing and you will breathe better in the first few hours after the operation, reducing the risk of chest infection.
- You do not need such strong pain relieving medicine in the first few hours after the operation. Because of the advantages spinal anaesthetic gives you, we recommend this type of anaesthesia for your operation.

2. Epidural Anaesthetic

A small plastic tube (an epidural catheter) is passed through a needle into a place near to the nerves in your back. You receive local anaesthetics and pain relief drugs through this tube, relieving pain and reducing all feeling in your lower body.

Although operations can be done with an epidural alone, it is more commonly used for:

- Operations expected to be very long, for example, more than 3 hours.
- Operations expected to be particularly painful afterwards. For these operations, it is often combined with a spinal or a general anaesthetic.

Advantages

- It can be topped up with more local anaesthetic, and therefore its effects can be made to last longer than a spinal anaesthetic.
- It can be used to make you comfortable for several days after the operation.
- It also has all the advantages of the spinal anaesthetic shown above.

Disadvantages

You are more likely to require a catheter to be placed into your bladder, as the epidural may make it difficult to pass urine.

During a Regional Anaesthetic:

- Your Anaesthetist will ask you to keep quite still while the injections are given.
- You may notice a warm tingling feeling as the anaesthetic begins to take effect.
- Your operation will only go ahead when you and your Anaesthetist are sure that the area is numb.
- If you are not having sedation you will remain alert and aware of your surroundings. A screen shields the operating site, so you will not see the operation unless you want to.
- Your Anaesthetist is always near to you and you can speak to him or her whenever you want to.

General anaesthetic

Drugs produce a state of controlled unconsciousness during which you feel nothing.

You will receive:

- Anaesthetic drugs (an injection or a gas to breathe).
- Strong pain relief drugs (morphine or something similar).
- Oxygen to breathe.
- Sometimes a drug to relax your muscles.

You will need a breathing tube in your throat to make sure that oxygen and anaesthetic gases can move easily into your lungs. If you have been given drugs that relax your muscles, you will not be able to breathe for yourself and a breathing machine (ventilator) will be used. When the operation is finished the anaesthetic is stopped and you regain consciousness.

Advantages

- You will be unconscious during the operation.

Disadvantages

- A general anaesthetic alone does not provide pain relief after the operation. You will need strong pain relieving medicines afterwards, which make some people feel quite unwell and sick.
- Some patients may feel sick, nauseous, light headed or drowsy after their operation.
- This may prevent you from sitting out of bed soon after surgery and delay your mobilisation.

Side Effects, Complications and Risks of Anaesthesia

Serious problems are uncommon but risk cannot be removed completely. Modern equipment, training and drugs have made anaesthesia a much safer procedure in recent years. Anaesthetists take a lot of care to avoid all the risks described in this booklet. Your Anaesthetist will be happy to give you more information about any of these risks and the precautions taken to avoid them.

People vary in how they interpret words and numbers

This scale is provided to help

Very Common	Common	Uncommon	Rare	Very Rare
1in10	1in100	1in1000	1in10,000	1in100,000

Common and very common side effects

Pain around injection sites and general aches and pains. You may not be able to pass urine or you may wet the bed. This is because you are lying down, you may have pain and you may have received strong pain relieving drugs. A soft plastic tube may be put in your bladder (a catheter) to drain away the urine for a day or two. This is more common after spinal or epidural anaesthetics.

Spinal or epidural anaesthetics

You will not be able to move your legs properly for a while. If pain relieving drugs are given in your spinal or epidural, as well as local anaesthetic, you may feel itchy.

General anaesthetics

Sickness and sore throat – treated with anti sickness drugs and painkillers. Drowsiness, headache, shivering, blurred vision – may be treated with fluids or drugs. Difficulty

breathing at first – this usually improves rapidly. Confusion and memory loss are common in older people, but are usually temporary.

Uncommon side effects and complications

All anaesthetics

Heart attack or stroke.

General anaesthetics

Damage to teeth, lips and gums, chest infection, awareness (becoming conscious during a general anaesthetic).

Rare or very rare complications

All anaesthetics

Serious allergic reactions to drugs, damage to nerves (more common with spinals or epidurals), death.

General anaesthetics

Damage to eyes, vomit getting into your lungs.

Needles

A needle may be used to start your anaesthetic. If this worries you, you can ask to have a local anaesthetic cream put on your arm to numb the skin before you leave the ward. The ward Nurses should be able to do this.

Things To Do Before Your Operation

Home Support

Involve your home support (family member or friend) as much as possible during your time leading up to your operation. He/she can be invaluable to you in organising your home and helping you with your exercises before your operation. They must read the separate booklet 'Rapid Recovery Home Support Information Leaflet' to learn how they can help you.

Exercises

It is important to do the recommended exercises leading up to your planned surgery as this will strengthen your muscles and help in the recovery period. These exercises will be shown to you at pre-assessment. Having strong and fit muscles speeds your recovery and ultimately improve the outcome of your operation.

Diet

You will recover more quickly from surgery if you are healthy beforehand. Try to eat a healthy diet in the time leading up to your operation. It is quite common to experience constipation following your surgery. A healthy diet will reduce this risk. If you have any concerns about your diet, discuss them with your GP. You can be referred to a dietician if necessary. If you are overweight, it is very important to reduce your weight in preparation for your surgery. This will help to reduce any risks associated with anaesthetic and your new joint will last longer.

Smoking

Smoking cigarettes will compromise healing after any surgery and make you more prone to infection. Smoking also contributes to lung, heart and other medical problems. All of these make recovery much harder. This is because smoking reduces the amount of oxygen being delivered to the tissues which is vital for the healing process. It is best to try and stop smoking, at least 2 weeks before surgery and 6 weeks after, to give time for the wound and tissues around the knee to heal.

Prepare Your Home

Remember, when you first go home after your operation you will not be fully mobile and may have some restrictions on what you are able to do. Think about the things you normally do and make some adaptations. For instance, if you keep your mugs, plates, etc. in a low cupboard, consider moving them to a more accessible place for a short while after your operation. If you have to cook for yourself, consider making or buying some ready meals that are easy to prepare when you come home. It is also wise to be up to date with household chores like cleaning and laundry. You won't be able to do these in the first few weeks after your operation. It is important to ensure your home is safe for your return. You can avoid accidents by taking up any rugs and moving any wires and cables out of the way. Involve your home support in making the necessary preparations.

What To Bring To Hospital

You will need your toiletries, nightclothes and some loose fitting, comfortable day clothes. You will get dressed in normal 'day' clothes when you are in hospital. T-shirts and shorts are practical when doing exercises. Bring flat supportive shoes that are adjustable as your feet may swell after your operation, trainers are ideal. Shoes without a back or with heels are not suitable for safety. If you wish, you can listen to music via your own headphones and music player during your operation.

Start your checklist to prepare for your hospital visit Remember... Completed

- Toiletries - including hand wipes
- T-Shirts and shorts or comfortable day clothes

- Headphones or music - optional

- Nightclothes
- Flat supportive shoes
- Books, puzzles, magazines
- Pack all medication in original containers
- Ensure you have enough medication and will not run out
- Remove loose rugs
- Move furniture or other hazards
- Move items regularly used to be easily accessible
- Pack suitable clothing and toiletries
- Arrange care for pets and family
- Arrange discharge plans ie lift home
- Prepare food and meals for your convenience once home
- Freeze milk and bread for the first few days once home

Medication

You must bring all your medication to hospital in sufficient supplies to last for your entire hospital stay. We expect this to be 4 days including your day of surgery but please bring an extra few days supply. Bring them in their original boxes and not in dosette boxes. You should make sure before you come into hospital that you have enough supplies for when you return home, remembering that you may have limited mobility to visit your GP or pharmacy. We will supply any painkillers or antibiotics that you may need in relation to your surgery.

These drugs may all increase the risk of unpleasant constipation which can be avoided through a healthy diet as discussed earlier. You should inform your team if you feel you are getting constipated and they can prescribe appropriate medication.

The Day Before Surgery

The night before your admission, take a long hot soapy bath or shower, without using heavily scented brands and have an all-over scrub with a soft gentle brush or loofah. Clip your toe and finger nails (removing all nail polish) and wash your hair. Put on freshly laundered underwear. All this helps prevent unwanted bacteria coming into hospital with you and complicating your care.

On The Morning Of Your Operation

Have Nothing To Eat Or Drink (Nil By Mouth / Fasting)

You will receive clear instructions about fasting. It is important to follow these or your surgery will be cancelled. Food and liquid in your stomach can be regurgitated and could

damage your lungs. This includes chewing gum. Even if you are not having a general anaesthetic, you will still be asked to follow these instructions.

Take your normal medication. If you are taking medicines, you should continue to take them as usual, unless a health professional has asked you not to. For example, if you take blood thinning drugs, drugs that reduce the risk of blood clots or drugs for diabetes or herbal remedies, you will receive specific instructions.

Arriving In Hospital

You will be given instructions on where to present yourself on the morning of surgery. You will be allocated a bed and a nurse will do some final paperwork. Once this is completed, you may have a long wait depending upon where you are on the theatre list and it would be advisable to bring something to read with you. Your consultant and anaesthetist will also see you, your operation site marked with a marker pen. You will be given some medication approximately one hour prior to your surgery which will help to relieve any pain following your operation.

Anaesthetic Review

Your anaesthetist will visit you before your operation. The doctor will ask you again about your health and discuss the anaesthetic suitable for you along with the advantages and risks of all options. This is a good time to ask questions and tell the anaesthetist about any worries that you have.

The Day Of Surgery

The majority of patients are admitted to hospital on the morning of their surgery.

Glasses, Jewellery, Dentures

You can wear your glasses, hearing aids and dentures until you are in the anaesthetic room. If you are having a local or regional anaesthetic, you may keep them on. Jewellery and decorative piercing should be removed. If you cannot remove your jewellery, it can be covered with tape to prevent damage to it or to your skin.

The Operation

In The Anaesthetic Room

When it is the right time for your surgery you may walk with a Nurse to the anaesthetic room. If you are unable to walk you will be taken in a chair or on a bed.

The anaesthetic room is next to the operating theatre. Several people will be there, including your Anaesthetist and an Anaesthetic Nurse. Equipment will measure your:

- Heart rate - 3 sticky patches on your chest (electrocardiogram or ECG)
- Blood pressure – a cuff on your arm
- Oxygen level in your blood – a clip on your finger (pulse oximeter)
- A needle is used to put a thin soft plastic tube (a cannula) into a vein in the back of your hand or arm. Drugs and fluids can be given through this cannula.
- If needles worry you, please tell your Anaesthetist. A needle cannot usually be avoided, but there are things he or she can do to help. Finally, the type of anaesthetic chosen will be given.

During The Operation

You will then be wheeled into the operating room (theatre) and transferred onto the operating table and positioned. At least 6 people will be in the theatre to ensure your operation runs smoothly. All anaesthetics may cause changes in your heart rate, blood pressure and breathing. Your anaesthetist may intentionally adjust these to control your response to surgery. Anaesthetic drugs are given continuously throughout surgery and are stopped when the operation ends. An anaesthetist will stay with you for the whole operation and watch your condition very closely, adjusting the anaesthetic as required.

Blood Transfusion

You will lose blood during and briefly after your operation. Your body can normally cope with this and produces more blood over time to replace the lost amount. Occasionally, if you have lost more than your doctor wishes, it may be replaced using a blood transfusion. It is now more common to collect your own blood that is lost during and after the operation via a drain the surgeon places in your knee. This blood is given back to you through your drip.

After The Operation

You will be taken to the recovery room, near the operating theatre and a recovery nurse will look after you. You will not be left alone and there may be other patients in the same room. You may need to breathe oxygen through a mask and you will have a drip (a bag of fluid attached to your cannula which drips slowly into a vein). Your blood pressure, heart rate and oxygen level will be measured. If you have pain or sickness, the recovery nurse will treat it promptly. If you have any pain at this stage, you must let the recovery nurse know, as this is the best way your pain can be assessed and controlled.

You can start the exercises you will have been shown by the physiotherapists on your non-operated leg straight away (you may not have any power or feeling in your operated leg). A recovery nurse will help you bend your operated leg. When the recovery room staff are satisfied that you have recovered safely from your anaesthetic and your pain is controlled you will be taken back to the ward.

Pain Relief

Good pain relief is important and some people need more pain relief medicines than others. On returning to the ward the nurses will reassess the degree of pain you may have. You must be honest with your answers. An assessment scale is used to measure your pain regularly. The nurses will ask you to rate your pain at rest and on movement on a scale of 0 – 4, 0 meaning no pain and 4 being severe pain. You may also choose the word that best describes your pain: No Pain, Mild, Moderate, Severe, Worst Pain Ever.

What You May Receive

Tablets or liquids to swallow. These may be used alone or with other methods of pain relief, such as patient controlled analgesia (PCA), epidural or a nerve block, to boost its effect. They take at least half an hour to work and you need to be able to eat and drink and not feel sick for these drugs to work.

Suppositories

Certain painkillers are effective when given as a suppository. These are placed in your back passage (rectum). They are useful if you cannot swallow or might vomit.

Injections

These are given into a vein for immediate effect, or into your leg or buttock muscle. Strong pain relieving drugs such as morphine, pethidine and tramadol may be given by injection.

The nurse will assess you regularly to ensure the pain control is effective. If you are uncomfortable, the nurse will give you medication to control your pain. A Cyro Cuff (which is a water filled cuff) which is applied to your knee the day after your operation and removal of bandages and is also cooled to help to reduce pain and swelling .

Nerve Blocks And Epidurals

These can give effective pain relief for hours or days after the operation. When the sensation begins to return and numbness wears off, you must inform the nurse who will give you suitable painkillers.

Occasionally, despite regular painkillers, you may experience stronger pain. This may occur during physiotherapy exercises or walking. You will have additional painkillers prescribed to help relieve this pain but you will need to ask your nurse for these. It is important that you are comfortable enough to be able to comply with physiotherapy to prevent any delay in rehabilitation.

Good pain control helps you recover more quickly after your operation. It is important to let the Doctors or Nurses know if you are in pain. Do not wait to be asked and do not feel

afraid of being a nuisance. If your pain is effectively controlled, post-operative complications are reduced. Good pain control will allow you to sleep better, helps your body heal more quickly and enables you to leave hospital sooner.

You can get more information about pain relief from:

- The nurses on the ward
- Your anaesthetist
- Manufacturers' information leaflets for patients about any drug you are offered (your nurses should be able to give you these leaflets).

After Your Operation

Back On The Ward

Following your operation and recovery, you will be taken in your bed to the ward where nursing staff will look after you for the rest of your time in hospital.

It is perfectly normal, in the initial stages of your recovery, to be connected to various pieces of equipment. These machines help the nurses monitor your blood pressure and pulse, as well as giving you fluids and possibly painkilling medicines through a tube into your vein. You may have oxygen via a mask or small tubes into your nostrils.

Bandages over the wound on your knee will be looked at regularly.

If you have had a spinal anaesthetic you may not be aware when you are passing urine - this is normal, the sensation will come back once the anaesthetic wears off. (4 – 6 hours).

There is a risk that you may feel nauseous following your surgery, especially if you have a general anaesthetic. It is important that you mention this to the nursing staff as soon as possible so that they can give you something to help reduce this. The nurses are there to reassure you, do not be afraid to ask them things you are not sure of.

Depending on the time of your operation the staff will encourage you to start gentle exercises and may assist you to move from the bed to the armchair. Most patients will be able to walk on the same day of surgery. This early movement promotes good circulation and movement of your knee. Being in a more upright position will help reduce the risk of chest complications.

The Day After Your Operation - Day 1

You will have a blood sample taken to assess your blood loss. A nurse will help you with washing and dressing and you will sit out of bed for your breakfast. You may not feel like eating much on this first day, but it is important that you drink, little and often. You can sit in a chair and can walk to the toilet.

The physiotherapist will visit you and check your breathing and give you some gentle exercises to do. Your bandages will be reduced and if you have any drains they may also be removed. Knee bending and strengthening exercises should be started as soon as possible.

Exercises After Surgery

A physiotherapist will show you how to walk, at first with a walking frame. You will also be helped with deep breathing and exercises for your circulation.

The Physiotherapist will see you following your operation. You will then be seen once or twice a day during your stay in hospital. It is important to practice these exercises independently once you have been shown how to do them.

The role of the Physiotherapist is to teach you exercises to increase the range of movement and the strength of your new knee. They will also ensure that you are walking safely with appropriate aids and safely ascending and descending stairs.

From the time you wake from your operation it is important to do the following exercises.

1. Take 6 deep breaths every hour to encourage lung expansion.
2. Bend and straighten your ankles briskly. Keeping your knees straight during this exercise will also stretch your calf muscles.



Repeat 10 times at least 3 times a day.

3. Rotate both ankles in a clockwise and anti-clockwise direction.



Repeat 10 times at least 3 times a day.

4. Sit on the bed with a sliding board under your leg. Bend and straighten your hip and knee by sliding your heel up and down the board.



Repeat 10 times at least 3 times a day.

5. Static Quads: With your leg straight, pull your toes towards you and tighten your thigh muscle by pushing your knees firmly down into the bed. Hold for 5 seconds.



Repeat 10 times at least 3 times a day.

6. Place the roll provided or a rolled up towel under your knee. Pull your foot and toes up by tightening your thigh muscle and straightening your leg.

Hold for 5 seconds. Slowly relax.



Repeat 10 times at least 3 times a day.

7. Pull your toes up and straighten your knee. Lift your leg up off the bed. Hold for 5 seconds. Slowly relax.



Repeat 10 times at least 3 times a day.

8. Sitting in the chair, straighten your knee out in front of you. Hold for 5 seconds. Slowly relax.



Repeat 10 times at least 3 times a day.

9. Hamstring Stretch: Sitting, with your heel supported on a chair or rolled up towel as shown. Bend your ankle and allow your knee to straighten.

Hold for 10 seconds.



Repeat 10 times at least 3 times a day.

10. To progress this exercise, bend your upper body forwards from your hips keeping your back straight. You should feel the stretching behind your knee and thigh. Hold for 10 seconds.



Repeat 10 times at least 3 times a day.

Start by doing 10 of each exercise 3 – 4 times a day. As this becomes easier you can increase the number of each exercise.

NB: Normal hip precautions must be maintained for patients who have previously undergone a Total Hip Replacement. If you are unsure please ask a member of the team. Following your operation it is important to follow the instructions given to you by the ward staff and to complete your exercises as directed by the physiotherapists. Whilst you are at rest it is important to rest with your leg fully extended (straight) to prevent the formation of fixed flexion deformity (where you are unable to fully straighten your leg). You must resist the temptation to rest with your knee on a pillow as this will not allow your knee to fully straighten.

From Day 2 Onwards (Continued Up To 6 Weeks After Surgery)

You will stand with the staff and go for a walk using a walking frame, elbow crutches or sticks depending on your progress. You should also continue your breathing and circulatory exercises as outlined in day 1. Your mobility will be progressed daily.

Each day, with encouragement from the nurses and physiotherapists, you will become more independent. The physiotherapist will show you how to negotiate stairs safely. You should continue with your exercises and working on fully straightening the knee and bending it as much as possible, preferably to 90 degrees prior to discharge.

An x-ray will also be taken.

Stairs

Going UP stairs

First take a step up with your un-operated leg. Then take a step up with your operated leg. Then bring your crutch or stick up onto the step. Always go one step at a time. If there is a rail hold onto this with one hand and you will be shown how to hold your other crutch or stick.

Going DOWN stairs

First put your crutch or stick one step down. Then take a step with your operated leg followed by your un-operated leg. Always go one step at a time. Do not discard your walking aid until told to do so.

Discharge

You will be able to go home 3-4 days following your operation. This will happen only if you and the team looking after you think you are safe. Before you go home you will be given advice on any new tablets, such as painkillers and when to start any tablets that were stopped. If you are able to attend your GP practice, your practice nurse can remove any clips/sutures and check your wound 10 days after your discharge. You will need to make an appointment. If you cannot do this, we can arrange a district nurse to come to your home and do this. Any equipment you will need at home will have been discussed and organised by the physiotherapist if appropriate. You should continue to do your exercises at home. The usual advice is twice a day. In general, it is better to do them little and often rather than in one long session.

Follow Up

You will be referred to a Physiotherapy Outpatient Department for further rehabilitation if necessary. You will be seen by your Consultant in outpatients at around 8-10 weeks following your surgery

Exercises and Precautions Once You are At Home

Precautions

If after discharge your knee or leg becomes excessively swollen, red, weeping fluid or unduly painful, please contact the ward sister, on one of the numbers listed at the end of this booklet.

Driving

Driving is permissible when you can sit comfortably in the car and when your muscle control provides adequate reaction time for braking and acceleration. Most individuals resume driving about 4-6 weeks after surgery. Please always check with your insurance company before starting to drive, otherwise you may not be adequately covered in the event.

Swelling

Your knee will swell for a couple of weeks or even longer after your operation. If this happens you must sit with your leg up and well supported and ease off any strenuous activities until your swelling has reduced. You must however ensure that you bend your knee at regular intervals and continue with your exercises.

Placing a cold compress on your knee can help reduce the swelling. A filled Cryo Cuff will be supplied to you to take home. Apply 2-3 times a day for as long as you can tolerate. If you experience numbness following the use of the Cryo Cuff, remove and reduce the amount of time that it is worn.

You can keep the Cuff in a plastic bag and store in your freezer to cool between applications.

Kneeling

Avoid kneeling until your wound has healed and you have an adequate bend. You may find kneeling on the scar of your knee replacement painful for many months after the operation.

Gardening

This can be resumed after 2 months, however you must minimise kneeling and avoid damaging the skin around the knee as this can lead to serious complications such as infection. You must also take great care with heavier gardening work such as digging.

Sport

After 12 weeks you can return to certain sports. Walking and swimming are excellent but sports that require jogging and jumping are not, e.g. football, squash, tennis, athletics. Your Consultant can also provide additional advice on what sporting activities you can resume after your operation.

Reminders

- Loss of appetite is common for several weeks after surgery. A balanced diet is important to promote proper tissue healing and restore muscle strength.
- When walking do not twist your knee as you turn around, but take small steps instead.
- Do not stand for prolonged periods as this may cause your leg to swell. If you are not walking keep your leg elevated when sitting or lying down and continue with exercising the foot and ankle.
- Contact your GP at once if you develop an infection anywhere in or on your body as it is essential to have it treated. Inform staff that you have had a joint replacement before any invasive treatment, e.g. dentist.

Falls Prevention Advice

1. Consider removing loose rugs and matting. Alternatively, they can be secured to the floor by slip-resistant grips.
2. Ensure there are no trailing cables within your home e.g. from electrical appliances or the telephone.
3. Ensure you have a night light next to your bed so you can make your way to the toilet safely at night.
4. Ensure there is sufficient room to manoeuvre around the room with your walking aids. If necessary, consider removing excess furniture or ornaments.
5. Cordless telephones are useful, as they can be taken from room to room. They avoid you rushing to get to the telephone and provide you with an accessible means of contacting someone in an emergency.

6. Auto-dial alarms, which can be worn as a bracelet around your wrist or on a pendant, can be useful. This will enable you to call for assistance if you have a fall.

Useful Telephone Numbers

Hospital Switchboard	01978 291306
Nurses Station (direct lines)	01978 268033
	01978 268032