



**Supporting your
Enhanced Recovery**

Patient Guide for Knees

**Before, during and after
joint replacement**

A patient education initiative provided by
Princess Royal Hospital
supported by:



Your **pathway** to joint replacement success



You will find it useful to bring this guide book with you each time you visit Princess Royal Hospital

This guide book belongs to

Name:

Your booking information

Please bring this guide book with you each time you visit

Pre-operative assessment date:

Joint School date:

Consent Clinic:

Your surgery date:

Expected date of discharge:

Post operative check:

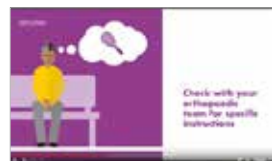
Log in to JointPathways® TV

Access informative and educational videos to help you prepare for your surgery and enhance your recovery.

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One

Welcome to
JointPathways™



What is JointPathways™?

JointPathways™ is a partnership programme between you and Princess Royal Hospital.

Enhanced Recovery is about improving patient outcomes and speeding up a patient's recovery after surgery. It results in benefits to both patients and staff. The programme focuses on making sure that patients are active participants in their own recovery process. It also aims to ensure that patients always receive evidence based care at the right time.

Together you and your surgeon have decided that you should have an operation.

This guide book will explain what to expect, what you need to do to prepare and plan for your operation, and what you need to do after your operation to enhance your recovery and return to the activities you enjoy as quickly as possible. It is therefore important that you participate in your care for us to jointly achieve the best possible outcome after your operation. Remember, everyone is different and some people advance faster than others.

This Patient Guide is a vital part of the programme and we strongly encourage you to read it at your leisure and bring it with you when you come to into hospital for your operation.

If you need clarification or have questions for which you are unable to find the answers, please do not hesitate to ask anyone in our team.





Two

Introduction

A guide to Princess Royal Hospital and the services it provides

About Princess Royal Hospital

At the Princess Royal Hospital, you will be looked after by a dedicated multidisciplinary team including; surgeons, anaesthetists, nurse practitioners, pre-admission nurses, ward nurses, health care assistants, therapists, doctors, medical secretaries, pharmacists, theatre practitioners, ward clerks, radiographers, porters and catering staff.

The Orthopaedic Department at Princess Royal Hospital consists of a team of 10 consultants. Each has sub-specialist skills developed in leading Orthopaedic centres both nationally and internationally. The Orthopaedic team is committed to providing the highest standard of Orthopaedic care available. New and advanced treatment options are frequently incorporated in this rapidly changing field.

The surgical team is supported by dedicated anaesthetic consultants. They have specialist skills in anaesthetising patients undergoing Orthopaedic surgery. For complex surgical procedures there is an intensive care unit and high dependency unit to optimise care of patients who are at high risk during their stay in hospital.

Patient consent

Our commitment to you is to inform you of all aspects of the intended procedure you are to undergo. It is about making sure you understand all you wish to know about the operation you are going to have, including the choices available as well as the risks and benefits of your preferred treatment.

Following your individual consultation with your surgeon, should you wish for further clarification of any aspects of which you have been informed, please ask the nurse who will be happy to clarify issues.

GPDR (General Data Protection Regulation) compliant

Your name is entered onto our computerised database, enabling us to keep effective clinical records. Under the Data Protection Act you have the right to view any records held by Princess Royal Hospital. Please ask a nurse should you wish to access them.

If you or your representative wish to have copies then you will have to give your written consent for a copy to be made. You will have to pay for this copy.

Chaperone

You have the right to have a chaperone provided by the Hospital, during any examination and certain procedures. You may choose a family member or close friend or carer. You also have the right to choose a carer to be involved in your care.

Smoking

Smoking is actively discouraged, particularly prior to and immediately postoperatively, as this can add to complications of surgery and compromise healing.

The Princess Royal Hospital has a no smoking policy with which we request your co-operation. You may find it helpful to discuss giving up smoking with your doctor or practice nurse. Alternatively, we can refer you to the Hospital Stop Smoking Service.

Dietary requirements

You will have a choice of meals to select from. If you have special dietary needs please inform the Pre-Operative Assessment Nurse who will notify the ward. Please feel free to remind the ward staff of your needs on your arrival.

Mobile phones

For the safety of all patients the use of mobile phones is restricted in some areas of the hospital and you may not be able to use your phone on the ward on which you are placed. Please ask the nurse in charge before you make a call.

Single-sex accommodation

Being in mixed-sex hospital accommodation can be difficult for some patients for a variety of personal and cultural reasons. Here at Princess Royal Hospital we understand this and strive to treat all patients in privacy and with dignity. For this reason, we have worked to ensure that we provide single-sex accommodation for all patients wherever possible.

Privacy and dignity are at the heart of our policy and they are vital components of quality care.

The over-arching goal is to deliver single-sex accommodation across the service, however the varied needs of different patient groups and clinical settings are recognised.

There are occasions when mixed-sex accommodation is unavoidable, but patients' privacy and dignity will always be assured.

Listening to what you say

Concerns and complaints

All your comments and complaints are taken seriously, regardless of their nature. Please do not hesitate to point out your dissatisfaction with the service to any member of staff with whom you come into contact with, who will all be pleased to assist you.

If you wish to immediately escalate the complaint however, you can do so through the Patient Advice and Liaison Service (PALS). Their office is based on the ground floor corridor along the main entrance and their telephone number is 01952 282888 extension 4382.

PALS does not replace the formal NHS Complaints Procedure who can advise you accordingly.



Three

Educational information

Total knee replacement

The normal knee

The knee joint is made up of two joints, the larger one between the tibia (shin bone) and the femur (thigh bone), and the smaller one between the patella (knee cap) and the femur.

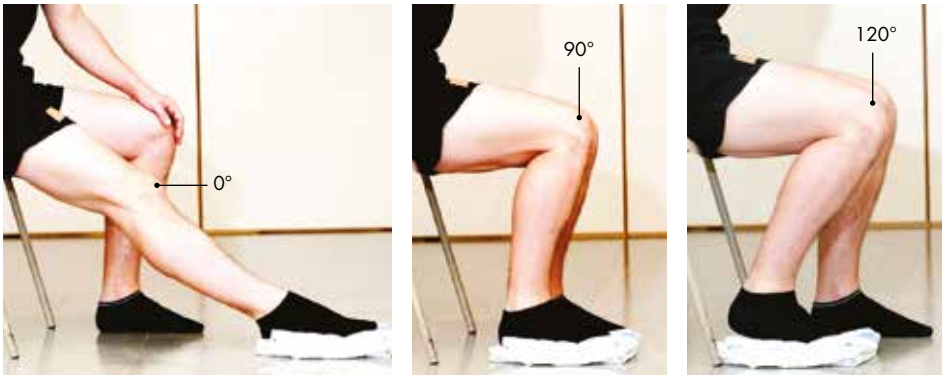


The surfaces of the joint are covered by articular cartilage, which is a firm slippery material about 3mm thick. A small amount of lubricating fluid is present and aids movement. This allows painless and effortless movement of the joint even under a load.

The knee has four ligaments which hold the joint together and prevent unstable movement. They are tough fibrous bands attached at each end to the bone. Although the knee appears to act as a hinge, it can rotate and stretch in smaller amounts as well.

Knee function

The knee takes your body weight and it must cope with walking, running, crouching, bending and lifting objects. To do this it has powerful muscles and a large range of movement.



The two most important muscle groups are the quadriceps and the hamstrings. The quadriceps is the big muscle group making up the front of the thigh. It straightens the knee. The hamstrings are at the back of the thigh and they bend the knee.

These muscles control knee movement and are vital for the stability of the joint.



When the knee becomes arthritic

As we get older most people will have “wear and tear” arthritis of the knee, although some will have rheumatoid arthritis which also involves other joints. Many factors may contribute to having arthritis; obesity, accidents, vigorous sport or a family history may be important. In osteoarthritis (wear and tear), certain changes occur in the joint.

- The smooth cartilage becomes flaky and develops small cracks
- The bone underneath the cartilage becomes denser
- The lining of the joint becomes inflamed and may thicken up

As the arthritis progresses, there may be:

- Severe wear of the cartilage allowing the bones to rub and grate together
- Loss of the joint space
- Formation of bony lumps called osteophytes
- Swelling of the knee
- Knock-knee or bow leg

These changes may result in PAIN, LOSS OF MOVEMENT and LOSS OF MUSCLE POWER.



Narrowed joint space due to thinning cartilage



The artificial joint

The artificial knee joint closely follows the shape of the real joint. It has been designed and tested to replicate the function of the normal knee. There are many designs of artificial knee joint. Your surgeon will choose the most suitable for you.

A total knee replacement is made up of the components shown here.

The combination of metal and plastic means the joint has low friction, wears very slowly and moves easily with your weight on it. You may be surprised how heavy it feels, but it has to last over ten years. Remember, only small slithers of bone damaged by arthritis are removed, not the whole knee.



Why do I need a knee replacement?

- Because you may have pain which at times is severe and disabling which makes it difficult or impossible to carry out normal daily activities
- You cannot walk very far now and may have to use a stick. Stairs can be very difficult
- Your knee is getting stiff and you cannot bend it easily

The operation

A knee replacement is a major operation and usually takes between 45-90 minutes. The operation will be done under spinal (epidural) anaesthetic or general anaesthetic (where you are put completely to sleep) and the existing knee joint is re-surfaced:

- The worn surfaces at the bottom end of the thigh bone (femur) and the top end of the shin bone (tibia) are removed
- The surfaces are covered with metal implants fixed in place with bone cement
- A smooth plastic insert is fixed to the top of the tibial implant. This ensures that the two surfaces glide smoothly together
- Sometimes the underside of the knee cap (patella) is also re-surfaced with plastic
- The layers of soft tissue, muscle and skin are stitched and clipped back together

You are usually in hospital for one to two nights. You should be prepared to work hard at the exercises given to you by the therapy staff. Most patients tell us that they are pleased with the result of their knee replacement. Some, however, are less satisfied either because a complication has arisen or their expectations are too high. Total rejuvenation is not achievable!

Anaesthesia and you

Preparing yourself for anaesthetic

- Being fasted of food and fluid is a very important step you must take in order for us to provide you a safe anaesthetic
- You can eat solid food until midnight and clear fluid (excluding milk) until 6 a.m on the day of your surgery
- We highly recommend stopping smoking as this has a major effect on anaesthetics and your surgical recovery
- Long standing medical problems such as diabetes, asthma, high blood pressure, epilepsy or thyroid problems should be well controlled through your GP or hospital specialist

What will happen before my surgery?

- Review and check-up by an anaesthetic doctor for fitness for surgery on the day
- Review of your notes and pre-op assessment visit previously
- Consultation with the anaesthetic doctor regarding the safest and most effective mode of anaesthesia for surgery

Types of anaesthesia

- The ideal anaesthetic for your surgery is a spinal anaesthetic
- General anaesthesia is reserved only for clinically indicated situations

Spinal Anaesthesia

- Injection of local anaesthetic into your back to numb the overlying skin
- Injection of another local anaesthetic into your spine to anaesthetise the nerves of your legs
- You will feel numb from the waist down
- You will not be able to move your legs for the next 3 to 4 hours, which is completely normal

Sedation

- Sedation will be provided as part of your anaesthetic
- The main purpose of the medication is to make sure you remain calm, relaxed and comfortable throughout your surgery
- Your blood pressure, heart rate, heart rhythm and oxygen levels will be monitored closely throughout
- Sedation is not the same as having a general anaesthetic where you will be completely unconscious
- Recovery from sedation is much quicker allowing you to mobilise and start your recovery process sooner

Recovery

- After surgery you will be moved to a specialised area
- Our aim here is to make sure you remain comfortable and pain free after the operation
- Your sedation will begin to wear off and you will be fully awake
- Recovery nurses are given instructions from the physicians regarding your enhanced recovery which include pain control, early mobilisation and eating and drinking

Will I have any side effects?

- Whilst a spinal anaesthetic is ideal for your operation, there are some risks
- Your anaesthetist will discuss these risks with you during the morning anaesthetic assessment visit

Common side effects

- Itching can be a side effect of a working spinal anaesthetic, which can take up to 24 hours to fully resolve
- Lightheadedness
- Nausea and vomiting

- If you have any of the above please let your anaesthetist know so that we can help you

Uncommon side effects and complications

- Difficulty passing urine after the operation
- Severe headaches that do not always respond to paracetamol and ibuprofen
- Failure of spinal anaesthesia to achieve an adequate level of anaesthesia
- The level of anaesthesia will be thoroughly tested before any surgery is allowed to start

Rare side effects and complications

- Nerve injury leading to weakness and difficulty with mobilising
- Bleeding
- Infections such as meningitis

Management of pain following your surgery

It is normal to experience pain following an operation. Different operations lead to varying degrees of post-operative discomfort and everyone experiences pain differently.

We aim for your pain to be at an acceptable level on movement, and should not prevent appropriate function e.g. Physiotherapy and mobilisation.

Pain control is an essential part of your care

How can we reduce your pain?

The nurses and pain team are able to give you advice and support. Pain relief is available in different forms and strengths.

Oral Medication

When you are able to drink and eat then you may take your painkillers by mouth. Most patients will need to take painkilling medication regularly after surgery to keep their discomfort to a minimum.

Nerve Blocks and Local Anaesthetics

Most patients will receive a spinal anaesthetic and will have long acting pain killers added to this injection, this can provide very effective pain relief for up to 24 hours after the operation. Injecting local anaesthetic drugs close to the nerves going to the knee, the spinal region or the operation site blocks painful messages from being sent to the brain. This is carried out at the time of your operation and will give a numbing sensation for two to 24 hours, depending on which block is used. The Anaesthetist will discuss this with you in further detail.

Injection

You may need to have painkillers by injection into a muscle in your upper thigh.

Pharmacy department

What is the role of the pharmacist?

The pharmacist is fully qualified and registered with the General Pharmaceutical Council. The pharmacist visits in-patients and checks their drug charts for legibility, safety and effectiveness of each drug prescribed for you. The pharmacist will also check for any drug allergies and order newly prescribed items.

Before you come into hospital

You will be seen by a nurse practitioner in the out-patient clinic, who will document the medication you are prescribed and tell you if and when you need to discontinue any of your drugs before surgery. In most cases you will continue on all the drugs usually prescribed by your GP.

You should bring all your usual medication into hospital with you, and this will be locked away in a medicine locker beside your bed. It is better to store and bring them in their original containers and NOT in a pill dispenser or dosette box.

This enables us to check your dosage instructions and positively identify them as belonging to you.

Discharge from hospital

Before discharge, the pharmacist will dispense an interim box of analgesics if required and any other medication prescribed by the doctor on your drug chart. If you need to continue with the prescribed treatment you will need to order more from your GP, before you run out.

Contact

The pharmacist can answer medication queries about treatment prescribed by doctors in Princess Royal Hospital. We can help you with questions about side effects of medicines and interactions with your usual medication. We cannot comment on treatment prescribed by your GP or prescribed by another hospital.

After your operation you maybe prescribed the following medication for your pain whilst in hospital.

Paracetamol

This will be prescribed regularly, four times per day, whilst in hospital. When you first return from the operating theatre you may be given a dose intravenously through your vein but thereafter you will be given tablets.

Oxycodone

This is a strong (opioid) pain medicine similar to morphine and will be prescribed for you for short-term acute pain only.

How does oxycodone work?

Oxycodone works in the brain and spinal cord to alter how you feel pain.

How do I take it?

Long acting Oxycodone: these are taken regularly twice a day (12 hours apart), don't chew, crush or dissolve these tablets – as it will affect the way they work. You will be prescribed these for four doses only.

Short acting Oxycodone: these will be prescribed for you to take if you are still in pain after taking the long acting tablet, for a maximum of three days.

Pregabalin

This belongs to a group of medicines called anticonvulsants, which are also used to treat epilepsy.

How does Pregabalin work?

Pregabalin works by changing the way that nerves send messages to your brain. If the messages are reduced, then the pain will be reduced.

How do I take it?

These are taken regularly twice a day, for six doses only, and should be swallowed whole with a glass of water.

Ibuprofen

If you are under 65 years of age and have normal renal (kidney) function, you may be prescribed Ibuprofen.

How do I take it?

These are taken regularly three times per day, after food, for a maximum of three days.

Blood transfusion

Receiving a blood transfusion:

The need for a blood transfusion during a primary knee replacement surgery is low

Why might you need a blood transfusion?

Most people cope well with losing a moderate amount of blood (e.g. two to three pints from a total of around eight to ten pints). This lost fluid can be replaced with a salt solution. Over the next few weeks your body will make new red blood cells to replace those lost. Medicines such as iron can also help compensate for blood loss. However, if larger amounts are lost, a blood transfusion is the best way of replacing the blood rapidly.

- Blood transfusions are given to replace blood lost in surgery
- Blood transfusions are used to treat anaemia (lack of red blood cells)
- Some medical treatments or operations cannot be safely carried out without using blood

What might I do to reduce my need for blood before an operation?

- Eat a well-balanced diet in the weeks before your operation
- Boost your iron levels - ask your GP or Consultant for advice, especially if you know that you have suffered from low iron levels in the past
- If you are on Warfarin or Aspirin, stopping these drugs may reduce the amount of bleeding

Please check with your GP or Consultant if you should stop these before your operation. (Please remember, for your own safety, only your doctor can make this decision).

Are transfusions safe?

Almost always, yes. The main risk from a transfusion is being given blood of the wrong blood group. A smaller risk is catching an infection. To ensure you receive the right blood, the clinical staff make careful identification checks before any transfusion. They will ask you to state your full name and date of birth. They will then check the details on your wristband to ensure that you receive the right blood. They will regularly monitor you during your transfusion and ask how you feel.

Donated blood will be specially selected to match your own blood for the most important blood groups. But, because your red blood cells carry over 100 different blood groups, an exact match is not possible. About one in every 15-20 patients develops an antibody to the donated blood, and will need to have specially matched blood. If you have a card saying that you need to have special blood, please show it to your nurse and ask him to tell the hospital blood bank.

Fortunately, severe reactions to blood transfusions are extremely rare. But when they do occur, staff are trained to recognise and deal with them.

How is blood given?

- It is dripped into a vein, usually in your arm or hand, using a needle and tubing
- One bag of blood (a unit) takes about two hours to give (but can be given more quickly or more slowly if needed)

How will I feel during my blood transfusion?

Most people feel no difference at all during their transfusion. However, some people develop a slight fever, chills or a rash. These are usually due to a mild immune reaction or allergy and are easily treated with Paracetamol or by giving the blood more slowly.

What if I have other worries about my transfusion?

You may be afraid of needles, worried about being squeamish at the sight of blood or have had a bad experience related to a blood transfusion. Please tell your doctor or nurse about any concerns you may have, no matter how trivial you think they may be.

Keeping things safe

Nothing matters more than the safety of both of the donors who give and the patients who receive, blood donations.

All blood used for transfusions is obtained from the National Blood Service (NBS). The National Blood Service (NBS) is part of the NHS and provides the blood that patients receive.

Other information

If you are interested in finding out more about blood transfusions and have access to the internet, you might find the following website useful:

National Blood Services - www.blood.co.uk

Post-operative complications and precautions taken to avoid them

The vast majority of patients make a rapid recovery after surgery and experience no serious problems. However it is important you understand that a knee replacement is a major operation and that complications can occur.

General surgical risks

Thromboses and emboli (blood clots)

Blood clots in the leg veins (deep vein thrombosis), on the lungs (pulmonary embolus), heart attacks and strokes can occur after any major surgery. The simplest way of reducing this risk is early mobilization (exercises and walking). Whilst in hospital you may also be prescribed a daily injection of heparin, (a blood thinning drug) or a tablet. These may continue when you are discharged and for up to six weeks after surgery, but you will be given clear instructions before you leave the hospital.

After discharge, it is important that you inform your General Practitioner if you notice increasing swelling in your calf accompanied by pain; chest pain or if you start coughing in the early weeks after surgery.

Urinary problems

The anaesthetic used can make it difficult to pass water following the knee replacement and sometimes a catheter is inserted into the bladder during the operation. Except in certain circumstances, this should be removed the morning after surgery.

Range of movement

After three months, you should find you have enough movement in your knee to carry out your normal daily activities. Some people find that it remains difficult to kneel down but aids and adaptations are available to help.

Transfusion

Blood transfusions following knee replacements are rarely needed. If your blood count is very low or if you are showing symptoms of anaemia (low blood count), the team looking after you may recommend a blood transfusion.

Allergies

Most joints are made of stainless steel or cobalt chromium and polyethylene. A very small level of nickel is present. It is extremely unlikely that you will have an allergy to your implant even if you have experienced a rash to your watch or earrings. Tell your surgeon if you are concerned.

Fat embolism

This is rare and is caused by the fat within the bones (marrow) traveling up into your lungs at the time of surgery and causing breathing problems. Although this can be serious it is most commonly treated with extra oxygen therapy.

Superficial infection

You will not be discharged from hospital unless the appearance of the wound is satisfactory. After discharge, if your GP or the district nurse has any concerns, he/she should ask your surgeon or Advanced Nurse Practitioner for a second opinion.

Deep infection

A deep infection of the joint most often starts when bacteria gain access to the tissues at the time of surgery and great lengths are taken in theatre to reduce the risks of this happening. Operations are carried out in an ultraclean air theatre and sterile clothing is worn by the surgical team. You will be given preventative antibiotics at the time of surgery.

All patients are screened for MRSA during their pre assessment appointment.

If you are found to be a carrier of MRSA you will be given treatment prior to your operation. Despite all the precautions taken, infections can still occur. An early deep infection (within the first six weeks) may sometimes be cured by washing the joint out in theatre, followed by an extended course of antibiotics. However, it is sometimes necessary to remove the new knee, treat the infection with a long course of antibiotics and then replace the knee again at a later date.

An infection can occur at any stage in the life of a knee. The reason for this is that any infection in the body can circulate in the blood and settle on the surface of the new knee joint. Once there it forms its own environment, or 'bio-film', which makes it difficult to treat with antibiotics alone. Although the symptoms of infection can often be suppressed with antibiotics the only way to eliminate this deep infection is to remove the artificial implant as described above.

If you develop signs of an infection (e.g. urine or chest infection, tooth abscess, leg ulcer) at any time after your operation, please remind your GP/dentist that you have a knee replacement. If your knee suddenly becomes painful, it is important to see your GP so that infection in your knee replacement can be ruled out.

Remember infection is a serious complication. If you develop any new redness around the wound or if the wound leaks after leaving hospital, it is important that you see your GP or telephone the helpline - 01952 641222 extension 4034.

Bleeding into the knee

It is normal for a knee to swell following surgery and often the whole leg swells. It is common to see bruising around the knee in the days after surgery and, occasionally, this bruising will extend down the leg and into the foot.

Pain

A total knee replacement is major operation and can be painful. You will be prescribed pain relief and it is advisable to take this regularly to enable you to perform your exercises. Bearable post operative pain and inflammation is part of the healing process and takes time to settle.

Leg Swelling

Leg swelling is a normal response to the operation and will settle week by week as your body absorbs the bruising. You should continue to do the exercises detailed in this guide book for the first six weeks after surgery. You should also aim to lie flat for at least 20 minutes once or twice a day. Walking can help reduce the swelling but standing unnecessarily should be avoided. If the swelling increases or if it is accompanied by tenderness in the calf or groin, a temperature or breathing problems you should ask your GP for advice.

Small risk of Death

With all surgery there is a small risk of death due to the stress of the anaesthetic or surgery, or pulmonary embolism (a clot forming in the lungs). This risk is largely dependent upon your health history which must be accurate.

Specific risks

Implant wear and loosening

On average, knee replacements are still working well after ten years. We only use knee replacements with a proven track record.

As with all artificial joints, wear and loosening can occur. If you experience new pain in your replaced knee, this can be a sign of loosening and you should seek advice from your GP or surgeon. Occasionally, loosening can occur without symptoms but may be seen on x-rays. It is for this reason that we will often follow you up with check x-rays for many years after your surgery, even though your knee may not be causing you any problems.

If your knee does loosen or become painful, your surgeon may recommend a revision knee replacement. This can be very complicated surgery and, should it be required, the risks and benefits of this would be discussed with you in detail.

Fractures

Very rarely, fractures (breaks) of the bone can occur during the course of surgery. These are almost always identified during surgery or on the check x-ray after the surgery. Occasionally, this requires further surgery or the surgeon may simply slow down your activities for several weeks to allow the fracture to heal.

Blood vessel injury

This is extremely rare but serious. It can sometimes be repaired by a vascular surgeon if needed.

Aching in the joint, stiffness, limp, etc.

Most people are delighted with their knee replacement but some describe aching or stiffness in the joint or have a limp which does not improve. The physiotherapist will work with you and give guidance to make your rehabilitation as easy and quick as possible but the person that gets you better is YOU.

If it continues you will be investigated thoroughly by the team looking after you.

Nerve damage

Very rarely one of the main nerves that run at the back of the knee can be damaged during the operation. This can cause a foot-drop or paralysis of other muscle groups in the leg. Although the nerve often recovers over a period of months the paralysis can persist.

Remember, the skin over the outer side of the knee can feel numb indefinitely or until the nerve fibers recover - this is normal.

Reducing the risk of infection in hospital

What you can do to help?

Publicity about hospital-acquired infection has caused a great deal of concern across the country. We recommend that you and all visitors adhere to the following guidance.

- Keeping your hands and body clean is important when you are in hospital. Take personal toiletries and specific skin care preparations if appropriate
- Taking a container of moist anti bacterial hand wipes with you will ensure you always have some available when you need to clean your hands, for example immediately before you eat a meal
- Ensure you always wash your hands after using the toilet and if you use a commode do not be afraid to ask for a bowl of water if the nurse does not offer
- Hospital staff can help protect you by washing their hands, or by cleaning them with special alcohol rub or gel. If a member of staff needs to examine you or perform a procedure, e.g. change your dressing, do not be afraid to ask if they have first washed their hands or used an alcohol rub or gel
- Try to keep the top of your locker and bed table reasonably free from clutter. Too many things left on top make it more difficult for the cleaning staff to clean your locker and bed table properly
- If you visit the bathroom or toilet, and you are concerned that it does not look clean report this immediately to the nurse in charge of the ward. Request it be cleaned before you use it, and use an alternative in the meantime



- Your bed area should be cleaned regularly. If you or your visitors see something that has been missed during cleaning, report it to the nurse in charge and request it is cleaned
- Always wear something on your feet when walking around the hospital
- Ask your visitors to wash their hands on arrival to the Ward and discourage your visitors from sitting on your bed
- We ask that visitors do not bring you flowers into hospital
- We only allow two visitors at a time



Four

Preparation for your hospital stay

Your general health and fitness before your operation

Do as much moderate exercise as your pain will allow. If pre-surgery exercises have been given, do try to continue them before your admission.

Ensuring that you eat well in the days/weeks before your operation should help you to recover more quickly.

Stop smoking – your chest needs to be clear for your anaesthetic.

Drink alcohol only in moderation.

Arranging some support for when you return home

If you have not already done so, please start thinking about when you go home and start to organise and make the necessary arrangements. These are the things that you need to consider:

Do you live alone? If so, please talk to family and friends to see if either they could stay with you or provide support for your discharge home following your operation.

You need to consider how you will manage any caring responsibilities you have (including pets), shopping, laundry and meals.

Please write the name of the person caring for you here:

If you have not been able to identify a named person please discuss with the staff as soon as possible.

Preparing your home for your return

It is very important that your home situation is suitable for you to return to following your surgery, especially if you live alone. Here are some things you should do:

- Clean the house and do the laundry and put it away
- Put clean sheets on the bed
- Think about the tasks you do in the kitchen and arrange your kitchen so items are at a convenient level/position
- Stock up your cupboards/freezer
- Prepare meals and freeze them in single serving containers
- Pick up loose rugs and mats and tack down loose carpeting
- Make sure there is space to walk from room to room without obstacles getting in your way. Remember you may be using walking aids

- Prepare a space where you can do your exercises and organise your exercise equipment
- **Ensure that you have an adequate stock of paracetamol tablets**

It is the aim that all patients are seen/contacted by the Occupational Therapist prior to admission who will assess your home environment and provide equipment appropriate to your needs to help maintain your independence. This would be achieved through the joint school. Home visits will only be carried out if absolutely necessary.

Pre-operative assessment clinic

The Pre-Operative Assessment Clinic is run by a team of specialist nurses who will assess your fitness for surgery and anaesthetic, whilst also providing you with the opportunity to discuss any requirements needed to help you plan for your admission to hospital and discharge following surgery.

During your 2 - 2.5 hour appointment you may have some or all of the following:

- A detailed nursing assessment
- An ECG (tracing of your heart)
- Blood tests
- MRSA screening of nose and groin (swabs)
- You will be asked to provide a sample of urine at your appointment
- You will be asked to complete a PROMS questionnaire (patient reported outcome measures)

Other tests may be required depending on your state of health. You may be referred to see an anaesthetist prior to surgery.

What to bring

- An up to date prescription

The nurse will advise you about taking medicines on the day of your operation and will inform you of any that may need to be omitted for a period of time before your surgery.

It is extremely important that you inform a member of staff that you are leaving the area, even for a short time, so that we know where you are.

When you have finished all your assessments please do not leave the clinic area without speaking to a nurse, so we can confirm that everything required has been completed.

If for any reason you cannot attend this appointment it is important to call the Bookings Team on 01743 261000 Extension 1044 as soon as possible. This assessment helps us to ensure that you are fit enough to have the operation and it cannot go ahead without it.

Joint School

What is Joint School?

The “Joint School” is a very important part of your preparation for surgery and will help you know what to expect when you come into hospital to have your knee/knee replacement and aid your rehabilitation at home.

At the Princess Royal Hospital, we believe that Joint School will prepare you to play an important part in getting better sooner and aims to enhance your post-operative experience. The session will last up to 1 hour and is run as an informal group combining a presentation and an opportunity to ask questions.

If you haven't been contacted or notified of your appointment for Joint School please call 01743 261044 to make a booking.

Why come to Joint School?

At Joint School, there is time to discuss practical things that will help you and your buddy plan for the procedure and your recovery in hospital and at home. It will explain your whole patient journey including:

- How to prepare for surgery
- What to bring into hospital
- Physiotherapy exercises
- Type of anaesthetic
- Post-operative pain relief

It also provides an opportunity to meet some of the team who will be involved in your care.

Bring your buddy!

It is important to invite your “joint buddy” to join you at the Joint School. A buddy is a person chosen by you to support and encourage you throughout your treatment and recovery. A buddy is often a partner, a family member or friend. Your buddy will not be expected to carry out clinical duties nor do they need any medical expertise but they do play an important role in supporting you through your experience.

Please make every effort to attend because you will be given vital information about your surgery and how you can help yourself to make a good recovery.

Informed Consent

Our commitment to you is to inform you of all aspects of the intended procedure you are to undergo. It is about making sure you understand all you wish to know about the operation you are going to have, including the choices available as well as the risks and benefits of your preferred treatment. Your consultant’s Advanced Nurse Practitioner will ask you to sign to give your consent to surgery. Every effort will be made to ensure this is done either on the same day as your pre-operative check appointment or whilst you are attending Joint School. However, occasionally you may need to attend a separate consenting clinic appointment.

Your health after your pre-operative assessment

If there are any changes to your health or medication prior to your surgery, or you become unwell it is important that you ring and inform the Pre-Operative Assessment Clinic on 01952 641222 Extension 5762 who will then advise you further.

Cough, cold, sore throat

Before coming into hospital it is important to avoid catching a cold, cough or sore throat. If you develop cold symptoms please contact the nurse in the Pre-Operative Assessment Clinic on 01952 641222 Extension 5762 for further advice.

Skin

For certain types of surgery it is important that your skin is not broken or damaged in any way, e.g. leg ulcers, rashes, inflamed cuts, as these may be a source of infection. If you develop skin symptoms please contact your Nurse Practitioner on 01952 641222 Extension 4034.

Teeth and gums

If you develop any problems with your teeth or gums prior to the operation please see your dentist and inform your Nurse Practitioner on 01952 641222 Extension 4034.

Urine and digestive system

If your urine becomes unusually smelly or cloudy or you experience pain or burning when passing urine, or if you develop a stomach upset or diarrhoea prior to coming in to hospital or after attending your Pre-Operative Assessment appointment you **MUST** inform the Pre-Assessment Clinic on 01952 641222 Extension 5762.

It is also vital that you inform the Pre-Operative Assessment Clinic if you have been an inpatient in any hospitals other than the Royal Shrewsbury Hospital and Princess Royal Hospital within 12 months of your admission.

What to pack and bring into hospital

Pack a small bag of clothes to last 24 hours and other items (see check list below). These will be moved to your bed space whilst you are in surgery and may be kept in your bedside locker. Label your belongings, particularly your dressing and walking aids. Leave your valuables at home as there is no facility to secure belongings on the ward.

- Knee Replacement Guidebook
- Loose fitting day clothes to wear during your stay: shorts, skirts, underwear, trainers/sturdy shoes*
- Nightwear: lightweight dressing gown, pyjamas with shorts, short night dresses
- Washbag containing toiletries and soap
- Towel and face cloths
- Slippers or comfortable shoes with backs*
- Dressing aids (Helping Hand)
- Books/magazines
- Small amount of money to cover purchases from the hospital shop/ trolley
- Any regular medication (to last four days)
- Contact details of the person who will be driving you home
- Reading glasses and case - labelled, if required
- Hearing Aid with batteries, if required

* It is not uncommon for feet to become swollen in the days following surgery so please choose footwear that is adjustable (with laces or Velcro) or are stretchy. Footwear should be clean and have a non-slip sole.

Please do not bring any valuables into hospital.

What to do on the morning of your admission to hospital

On the morning of your operation, have a bath, shower or full wash and wash and dry your hair. Do not apply deodorants, products or make-up as you will be asked to remove it. Do not shave your operation site. You are coming into hospital:

On: _____

Area: _____

Time: _____

You are being brought to hospital by: _____

We want you to eat until: _____

We want you to drink clear fluids until: _____

Take these medicines on the morning of your surgery:

Do not take these medicines on the morning of your surgery:

Exercising before surgery

It is important to be as fit as possible before your operation, this will make your recovery more rapid. Please complete pre-operative exercises as advised. When you attend Knee School, you will have the opportunity to discuss any individual difficulties or concerns you may have.

The following exercises should be commenced from when you are listed for surgery until you have your surgery, and some of these you will continue to do as part of your post-operative exercise programme.

You may find some of these exercises difficult at this stage due to pain in your damaged knee, therefore stop any exercise that is too painful or that makes your pain worse.

Activity guidelines pre-op: exercises

Aim to complete exercises 3-4 times a day, 10 repetitions of each.

1. Static quads (knee push-downs) (see page 69)
2. Inner range quads (see page 69)
3. Knee extension (long arc) (see page 70)
4. Hamstring curl (see page 70)
5. Single leg stance (see page 71)

Contact between patients and their relatives and friends

Visiting times are 13:30 - 19:30 daily. Visitors are asked to leave between 16:30 - 17:30 while patients have their evening meal.

- If you have a problem visiting within these times, please ask one of the nurses who will make arrangements to suit both needs
- Please show respect and consideration towards patients and staff whilst you are visiting
- Patients may become tired and need to rest. Please remember that other patients may wish to rest or sleep during visiting hours
- A patient should have no more than two visitors per bed at any time

Visitors are reminded to use the hand gel provided on entry and exit to the ward to prevent cross infection.

Visitors must not sit on the patient's bed at any time, please use the chairs provided and return them to the appropriate place.

Please nominate one family member to liaise with the ward for patient information as this releases the nurses to care for your relative more effectively.

Relatives can call the ward.

No fresh cut flowers are to be brought onto the ward.



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Hospital stay

What to expect

Day of arrival

- Arrive at the Orthopaedic Ward, Princess Royal Hospital, at the time stated on your letter
- You will be seen by a nurse, anaesthetist and surgeon

What to expect - immediately before surgery

- On arrival, you will have your blood pressure, temperature, pulse and oxygen saturation levels recorded
- The anaesthetist and a member of the surgical team will visit you before surgery. The anaesthetist will explain the anaesthetic and methods of pain control. You will have the opportunity

to ask any further questions

- A member of the surgical team will draw an arrow on your leg to ensure the correct side is operated on. Do not wash off this arrow! They will also discuss your consent again prior to surgery
- You will be given an indication of the time you will be going to theatre
- Theatres run all day so your surgery could be in the afternoon
- Before you go to theatre, you will be given a theatre gown to wear
- When it is time for your operation, one of the nurses from the ward will take you to the anaesthetic room. He or she will then go through a check list and then a member of the theatre team will take over your care

The operation

When you have been anaesthetised, you will be taken into operating theatre. If you are awake or under light sedation, you will be aware at times of some noises and vibrations. The anaesthetist will be there at all times to reassure you. You may wish to bring a device with you to listen to music.

What to expect - immediately after surgery

The operation to replace your knee takes about 45-90 minutes.

At the end of the surgery, the anaesthetist will take you to the recovery area where a recovery nurse will take over your care. You may find several items in place to help your recovery.

- An oxygen mask over your mouth and nose helps your breathing
- You will have calf compression devices attached to your legs (to encourage circulation and help prevent clot formation)
- A drip will be in your arm to replace any fluid lost during the operation. The drip in your arm should be removed once you are tolerating food and drinks

Your pain control and vital signs will be monitored in recovery. You will then be taken to the ward.

On the ward you will be given regular pain relief by the nursing staff in the form of an injection or tablet as required.

Observations including blood pressure, pulse, respiration rate, oxygen levels and temperature will be recorded. The nursing staff will encourage you to change your position regularly to prevent pressure sores.

Pain management

You may experience some significant discomfort following surgery. You will be given regular pain relief so you are able to do exercises and move your new knee.

Pain relief includes paracetamol, ibuprofen-type drugs (non-steroidal anti-inflammatory drugs) and morphine-like drugs (opioids). Initially, you will need strong pain relief to help you to move. We will give you strong pain relief for one or two days after your surgery. Sometimes, strong pain relief are given to you through a drip into your arm. This is called PCA (Patient Controlled Analgesia). You will be given more information about this if it is used.

Please remember to tell doctors and nurses know if the pain stops you doing your exercises. We may need to alter or increase your pain relief.

Some patients experience side effects from the pain relief. These can include:

- Drowsiness (feeling sleepy)
- Nausea or sickness
- Indigestion (heartburn)
- Constipation

Inform the doctors or nurses if you experience any of these side effects.

Day one to discharge

YOUR STAY

Following your operation:

- You will be assisted to wash and get dressed
- If you are drinking sufficiently your drip will be discontinued
- The dressing on your wound will be checked daily and left in place for as long as possible
- You will be seen by a member of the medical team
- Your pain levels will be assessed and pain relief will be given as appropriate
- Many of these medications make you constipated and you may need laxatives to counteract this
- The Physiotherapist will see you and start your exercise regime
- You will be expected to complete your exercise programme three times a day
- You will be shown how to get out of bed
- You will walk with an appropriate walking aid with a member of staff.
Do not attempt to walk or use your elbow crutches by yourself until you have been advised by a member of staff
- You will sit in a chair
- The occupational therapist will check that any equipment you require has been collected/delivered and fitted if required
- The knee precautions will be reinforced and advice given regarding use of aids for washing and dressing
- Discharge plan discussed
- Throughout your stay please let the nursing staff know if you have not had your bowels open so they can resolve the problem

- On day 1 or 2, blood tests will be taken
- You will have an x ray of your new joint
- If you have a urinary catheter it will be removed

Day two to discharge

- You will be expected to walk to the bathroom for all your personal care
- You will be asked to get dressed
- From now on you will be expected to sit in a chair for all meals
- The physiotherapist will continue with your exercises and progress your mobility with a zimmer frame to elbow crutches
- You will be taught to go up and down the stairs if you are ready
- The occupational therapist will practice safe transfer techniques to on/off the bed, chair and toilet while adhering to knee precautions.
- If you have achieved all your rehabilitation goals and are medically fit you may be discharged later in the day
- If prescribed, you or your nominee will be taught to give the blood thinning injection (Tinzaparin)

Post-Op exercises and goals

1. Ankle pumps (see page 69)
2. Static quads (knee push-downs) (see page 69)
3. Heel Slides/Knee bends (see page 70)

Patient Goals

For Total Knee Replacement

Get in and out of bed by yourself

Pain is controlled with pills

Get to the bathroom with little or no help

Wash and dress yourself with minimal help

Walk 100 feet with the use of walking aids

Climb and descend stairs

Finalise and review arrangements to return home

Goals are to be met with the guidance of therapy staff or nurses.



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Going home

Discharge home from the ward

Your wound will be assessed by the nurse. They will discuss with you wound care and removal of clips or stitches, which is normally 12-14 days after surgery.

You will be advised when to make an appointment with the Practice Nurse at your surgery to have the clips or stitches removed. You will be given a letter for the nurse, wound dressings, dressing packs and a clip remover. If you are unable to get to the GP surgery a District Nurse will be arranged instead.

The discharge will be confirmed with your next of kin.



You will be given painkillers, blood thinning medication (if prescribed) and your usual medications to go home with and a copy of the doctors letter should you need to see her or him in the following week.

Your outpatient appointment will be arranged before your discharge. This will be six to eight weeks following your surgery.

If you require outpatient physio this will be arranged by the hospital.

We aim to discharge you before lunchtime.

Hospital transport is not routinely available and there are strict eligibility criteria for using it. We therefore request that you organise your own transport wherever possible. If you have any concerns please speak to your nurse.

You need to identify and name the person who is going to be taking you home for when you next attend the hospital.

We expect you to go home on: _____

Who is going to take you home?: _____

Their telephone number is: _____

(It is important that the person you identify to pick you up from hospital can collect you at short notice)

You may feel that your hospital stay is shorter than you expected, however studies have shown that you will recuperate more quickly when you eat and sleep to your normal pattern. This also lowers the risk of post operative complications and hospital acquired infections. Therefore, anything that can be done to minimise this risk through careful planning is worth the time and effort.

Back at home

This information is designed to help you through the transition from hospital to home but always follow any specific advice given to you by your hospital team.

Remember, an artificial knee is not as good as a normal joint and must be treated with respect. In the first few months, the tissues around the joint will be recovering from the surgery. So, gradually build up the amount of walking and other activity that you do:

For the first 12 weeks after your operation

- No baths
- No driving
- No gardening

It is very important that you have organised the necessary support for when you return home. After major surgery you may feel that it is a good idea to ask friends or family members to stay with you or to help with simple chores. They will also be on hand to give you moral support as once you have left hospital you may feel isolated and uncertain of what to expect.

General wellbeing

- It is not unusual to feel tired and your sleep patterns may take a while to return to normal. Remember to have your rest on the bed every afternoon for at least an hour to reduce swelling in your legs and feet
- Your appetite as well as your bowel habits may take a while to recover. Make sure you drink plenty of fluids and try to eat a healthy balanced diet

- Try not to feel frustrated at not being able to do all the things you want straight away. Increase your activity levels gradually. Start with short distances around the house and garden in the first 2 weeks then increase as you feel able
- Avoid tight clothing including belts and tight underwear. Loose garments are generally more comfortable and are a lot easier to put on

Eating

- Due to your lack of activity you may lose your appetite or suffer from indigestion. Small meals taken regularly can help. If you have lost your appetite then milky drinks provide a source of energy and goodness

Medication

- It is important that you continue to take all your usual medication as instructed
- You will have been given a supply of painkillers to take home. Continue to take these as directed until you no longer feel that you need them. Remember your pain should be controlled enough to allow you to move about comfortably and to be able to practice the exercises to strengthen your knee
- You may have been given tablets or injections to administer to thin your blood. It is important that you continue with these as directed

Going to the toilet

- For the first two weeks after surgery it is very common for bowel movements to become irregular. This can be due to the effect of analgesia combined with inactivity and a change of routine. This will resolve itself as you get back into your usual routine at home
- However you can help yourself by eating high fibre foods such as fruit, vegetables and wholemeal bread. drink plenty of fluids and If necessary try taking a mild laxative for a few days until you return to your normal routine. If you need any further advice regarding your diet please do not hesitate to ask

Washing / bathing

- Should you require advice on completing your personal care without twisting/crossing your legs, please discuss this with the therapy staff at joint school

Sleeping

- You may sleep in any position and you may lie on your operated side if comfortable enough. If you want to lie on your unoperated side put a pillow between your legs to support the operated knee. Changes in routine and restricted movement can cause difficulty in sleeping. Some people are awakened by the discomfort caused by sudden movement. If this happens, you may wish to take a painkiller to help you sleep

Swimming

- None for the first 12 weeks then check with your surgeon

Dressing

- When dressing, sit on the side of the bed or in a suitable chair. This will help your balance
- Collect all the clothes you intend to wear and put them on the bed next to you before you start.
- Always dress your operated leg first and undress it last
- Do not wear tight garments over the wound as it may cause discomfort
- Begin to wear SHOES as soon as you start to move around.
- Avoid twisting whilst putting on clothes; always pull them straight up or down

Continuing your activities at home

Getting things from a low cupboard

If you need to bend down to the oven, fridge, or low cupboard, you will find it easier on your new knee to take that leg behind you while bending the un-operated leg.



Safety and avoiding falls - all areas

- Pick up loose rugs, and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly anchored to the floor or that have non-skid backs
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching
- Be aware of all floor hazards such as pets, small objects or uneven surfaces
- Provide good lighting throughout
- Keep extension cords and telephone cords out of pathways. DO NOT run wires under rugs, this is a fire hazard
- DO NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls
- Sit in chairs with arms. It makes it easier to get up
- Rise slowly from either a sitting or lying position in order not to get light-headed
- DO NOT lift heavy objects for the first three months
- Stop and think. Use good judgement

Walking at home

When you are first discharged home, expect to feel tired and do not over exert yourself in the first days. After a couple of days try walking outdoors going a little further each day.

If you are allowed to take full weight on your operated leg, you should continue to use two crutches for a minimum of six weeks when walking outside.

When walking inside you may feel that you are able to use only one crutch. You may do this when you are safe and able to walk without a limp. If when using one crutch you are limping, then we advise you to go back to using two crutches.

When walking with one crutch remember to hold your crutch in the opposite hand to the side of your operation. If you are not allowed to take all your weight on your operated leg you will have been provided with appropriate walking aids by the physiotherapist and advised how to progress.

Sitting

Choose a chair that is comfortable for you. Chair arms will help you get up and down safely in the first few weeks after surgery. To sit down and stand up safely, walk to your chair, slowly step back until you feel the back of your legs touching the seat. If you are using crutches, take your arms out of them and hold the handles in one hand.

Place your operated leg in front of you and place both hands onto the chair arms. Take your weight through your arms and un-operated leg, then ease yourself down onto the chair.



Once you are sitting, you can bend the knee of your operated leg, so your foot rests on the floor. Sit with your heels together, knees apart and toes turned out.

To get up from the chair - reverse the process.

Stairs

Always use a handrail if there is one.

Going up - lead up with the unoperated leg, followed by the operated leg and the stick/crutch.

Going down - lead down with the stick/crutch and the operated leg, followed by the unoperated leg.

(a lot of people use this to remember – “Up with the good, down with the bad”)

Keep this method up until you feel strong enough to walk upstairs normally. Many patients can manage this between weeks four and six (a few stairs at a time).

Household jobs

You should avoid all strenuous and taxing jobs immediately after surgery. Only when you feel up to it, should you attempt small chores and even then ideally you should have somebody helping you.

- DO NOT get down on your knees to scrub floors. Use a mop and long-handled brushes
- Plan ahead! Gather all your cooking supplies at one time. Then, sit to prepare your meal
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching
- To provide a better working height, use a high stool, or put cushions on your chair when preparing meals
- If you need to bend down to the oven, fridge, or low cupboard, you will find it easier on your new knee to take that leg behind you while bending the un-operated leg

Gardening

Avoid strenuous activity such as digging, pushing a wheelbarrow or mowing the lawn immediately after surgery. You may work at a bench in a greenhouse sitting on a high stool. Avoid reaching across your body for things. Avoid the temptation to do too much when you start gardening. Build up your strength, starting with lighter tasks and then progress as your stamina increases.

Kneeling

It is advisable to avoid kneeling on or twisting your new knee for 12 weeks as it will be painful and needs time to settle. Most patients cannot or prefer not to attempt kneeling but if you do, kneel onto operated leg first. Get up on un-operated leg first (let the un-operated leg take the strain).

Getting into a car

DO NOT drive for the first 6 to 12 weeks. For comfort, slide the seat back on its runners, recline the seat slightly to give yourself maximum legroom. It will be easier if the car is parked away from the kerb, so that you get into it on the level.

Driving

DO NOT drive for the first 6 to 12 weeks. Make sure you can reach and use the pedals without discomfort. Have a trial run without the engine on. Try out all controls and go through the emergency stop procedure. Start with short journeys and when you do a long trip stop regularly to get out and stand up and stretch. You may like to check and confirm your insurance cover. If you drive soon after surgery and have an accident, insurers may consider you liable for damage.

Return to sport, leisure and work

- Low impact sports such as golf, bowls, cycling, swimming and walking may normally be resumed after three months. Check with your consultant at your follow up appointment
- High impact sports, i.e. jogging, singles tennis, squash, jumping activities, football are not recommended therefore are participated in at your own risk
- Return to work usually takes place around 12 weeks post-operatively

- Heavy manual work may require longer. Your consultant will guide you on this

Your physiotherapist can advise you about exercises and choice of sport.

Sexual activity

This is up to you and how you feel. Resume with care mainly to prevent muscle strain or injury around the knee. Our clinical staff are very comfortable giving you advice, please ask.

Equipment loan and return

Any equipment that is recommended as a result of the therapy assessment process is provided on a short term loan. When you no longer require your equipment, 12 weeks post operatively or potential slightly later depending on your own recovery please contact the Community Equipment Services with whom you can arrange the return of your equipment. Please see their contact details below:

Community Equipment Services

Unit D6, Hortonwood 7

Telford, Shropshire

TF1 7GP

Tel: 01952 603838

Email: shropcom.communityequipmentservices@nhs.net

Consultant follow-up

Your consultant or a member of his / her team will review your progress at your follow-up appointment approximately six to ten weeks after your operation. You will either be given the appointment before you leave the ward or you will be sent a letter informing you of this in the post. We advise that you write down a list of questions prior to this appointment and take them along, as you may not see your consultant again.

Please remember that this booklet is a general guide only and your treatment may vary from this.

At home exercises

Aim to complete exercises 3-4 times a day, 10 repetitions of each.

1. Static quads (knee push-downs) (see page 69)
2. Inner range quads (see page 69)
3. Knee extension (long arc) (see page 70)
4. Hamstring curl (see page 70)
5. Single leg stance (see page 71)

Wound care

You may find that the area around your wound feels numb, tingly, itchy or slightly hard. This is normal and should disappear over the next few months. During this time you should protect it from sunlight as it will burn easily.

Avoid the temptation to scratch the area until it is fully healed. You may wash around your wound with soap and water unless otherwise advised.

If you have stitches or clips in your wound you will be asked to arrange an appointment with the practice nurse at your GP surgery to remove them or if you are unable to get to your surgery we will arrange for a District Nurse to come to your home. We will give you a letter and some clip removers (if required) to give to the nurse.

Redressing your wound using an opsite dressing

If you have any difficulty, please get advice



Recognising & preventing potential complications

1. Infection

Signs

- Increased swelling and/or redness at wound site
- Change in colour, amount, odour drainage
- Increase in pain in knee
- Fever higher than 38°C

Prevention

- Take proper care of your wound as explained
- If visiting the dentist, advise the practice that you have undergone joint replacement surgery

2. Blood clots

Surgery may cause the blood to slow and pool in the veins in your legs which could cause a clot. If a clot occurs despite preventative measures, you may need hospital treatment to thin the blood further. Prompt treatment usually prevents the more serious complication of pulmonary embolus.

Signs

- Swelling in thigh, calf or ankle that does not go down with elevation of the leg
- Pain, tenderness and heat in the calf muscle of either leg

Prevention

- Foot or calf pumps
- Early mobilisation / walking
- Compression stockings
- Blood thinners may be prescribed by your doctor
- Maintain good fluid intake

3. Pulmonary Embolus

An unrecognised clot could break away from the vein and travel to the lungs. This is an emergency and you should call 999 if this is suspected.

Signs

- Sudden chest pain
- Difficult or rapid breathing
- Sweating
- Confusion

Prevention

- Prevent blood clot in legs (as above)
- Recognise a blood clot in the leg and contact your GP promptly

FAQ

Seven

Frequently asked questions

Why have I still got swelling?

Healing tissues are more swollen than normal tissue. This swelling may last for several months.

Ankle swelling is due to the fact that each time we take a step the calf muscles contract and help pump blood back to the heart. If you are not putting full weight on the leg, the pump is not as effective and fluid builds up around the ankle. By the end of the day lots of people complain their ankle is more swollen.

What can I do about it?

When sitting the ankle pump exercises work the calf muscles and help pump the fluid away. Try to put equal weight through each leg and “push off” from your toes on each step. Have a rest on the bed after lunch for one hour. You can put one or two pillows lengthways under your leg whilst resting but do not use them at night.

Why is my scar warm?

Even when the scar has healed there is still healing going on deep inside. This healing process creates heat, which can be felt on the surface. This may continue for up to six months. This is a different warmth to that of an infection.

Signs of infection

- Increased swelling, redness at incision site
- Change in colour, amount, odour of drainage
- Increased pain in knee
- Fever greater than 38°C

Why do I get pain lower down my leg?

The tissues take time to settle and referred pain into the shin or behind the knee is quite common.

Why do I stiffen up?

Most people notice that whilst they are moving around they feel quite mobile. After sitting down the knee feels stiff when they stand and they need to take three to four steps before it loosens up. This is because those healing tissues are still swollen and are slower to respond than normal tissue.

Is it normal to have disturbed nights?

Yes, very few people are sleeping through the night at six weeks after the operation. As with sitting you stiffen up and the discomfort then wakes you up. Also many people are still sleeping on their backs, which is not their normal sleeping position so sleep patterns are disturbed. You may sleep on your side when you feel comfortable. Most people find it helpful to have a pillow between their legs.

I have a numb patch - is this okay?

Numbness around the incision is due to small superficial nerves being disrupted during surgery.

The patch usually gets smaller but there may be a permanent small area of numbness.

My new knee clicks occasionally – is this normal?

This can be normal and it is usually a sign that those swollen tissues are moving over each other differently than before. You should not let this worry you, as again this should improve as healing continues. If you have any concerns please speak to your surgeon.

When should I stop using a stick?

Stop using the stick when you can walk as well without it as with it. It is better to use a stick if you still have a limp so that you do not get into bad habits that are hard to lose. Limping puts extra strain on your other joints especially your back and other leg. Use the stick in the opposite hand to your operated knee.

Many people take a stick out with them for three to four months after the operation as they find they limp more when they get tired.

How far should I walk?

This varies on your fitness and what your home situation is. You should feel tired not exhausted when you get home, so gradually build up distance, remembering you have to get back.

Will I set off the security scanner alarm at the airport?

Most joints are made of stainless steel and these may set off the alarm. If this happens have a word with security staff and explain the situation.

BAA's advice (May '05) is that there should be no problem if your joint is made of titanium.

Will it get better?

Yes, do not despair! Do remember that most people who have knee replacement surgery have had knees that have bothered them for a long time. Therefore it will take time to recover from surgery and your body to get used to your new knee.



Eight

This is your future

This is your future - week 12 onwards

Total knee replacements are performed to give patients a better quality of life, and most people are keen to return to normality as soon as possible. However, it is most important that you DO NOT do too much too soon so as to allow healing to be as complete as possible. Hence the advice and few rules you were given on your discharge from the hospital.

Now that 12 weeks or so have passed, normal activities can be resumed.

Bathing

You may now sit on the bottom of the bath.

Walking

You may discard sticks as and when you feel comfortable. You may need some support when walking on rough ground or over longer distances.

Stairs

By now you should be climbing stairs normally, one foot after the other.





Nine

Exercises

After your operation you will be encouraged to be as independent as possible. This is achieved by starting your rehabilitation within a few hours of your operation. During your stay in hospital it is anticipated that you will be actively involved with your treatment.

Please keep this section by you while in hospital and tick when you have achieved the milestones.

1. Ankle pumps

Move foot up and down briskly as far as you can go.

Repeat 20 times.



2. Static quads - knee push-downs

Press the knee from the operated leg into the bed, tightening the muscle on front of the thigh.

Hold for 3-5 seconds.

Do NOT hold your breath.

Repeat 10 times.



3. Inner range quads

Lie or sit with a roll under the knee of the operated leg.

Lift foot, straightening the knee and hold for 5 seconds.

Do NOT raise your thigh off the roll.

Repeat 10 times.



4. Heel slides - (slide heels up and down)

Lie on a couch or bed. Slide heel toward your bottom. Make sure you move as far as you can.

Repeat 10 times.



5. Knee extension - long arc

Sit with back against chair.

Straighten knee.

Repeat 10 times.



6. Hamstring curls

- Stand and hold a secure surface for support e.g., back of a heavy chair, worktop
- Stand on your un-operated leg and bend your operated knee, lifting your heel towards your buttock
- Tense your buttock and hold for a count of 5
- Lower your foot slowly back down to the floor and repeat



7. Single-leg stance: to improve your balance

- Start with your back straight and your hips, knees and toes facing forwards
 - Make sure you have something sturdy for support, e.g. A banister or kitchen worktop
 - Stand on your un-operated leg and test your balance, first holding on for support, then without. Ask a friend or family member to time you. Practice until you can manage two minutes unsupported
 - Next stand on your operated leg. Repeat as before, first with support, then without, until you can stand on either leg and balance without help for two minutes at a time
-



Ten

Useful information



Telephone numbers

To contact the hospital dial **01952 641222** followed by the extension you require

Knee Helpline	4034
Outpatients Physiotherapist Department	4103
Inpatient Physiotherapist & Occupational Therapy department	4102
Outpatient Department	4653
Pre-Operative Assessment Clinic	5762
Patient Advice and Liaison Service	4382
Appointments Office	4656
Ward [...] Orthopaedic Elective Ward	[.....]
Day Surgery Unit	4240
Admissions	1044

For further information and links to websites and policies www.sath.nhs.uk

Useful contacts following your hospital discharge

General Practitioner (GP)

For all non emergency medical enquiries please contact your GP.

Red Cross

For the short term loan of equipment including wheelchairs, or short term assistance with domestic tasks such as hoovering, collecting prescriptions or light shopping contact 0844 4122750 or visit www.redcross.org.uk for more information.

Shopping services

Your local supermarket or grocers are likely to have a delivery service that you may be able to access over the telephone or online. Contact your local shop for details.

Cinnamon Trust

For long or short term pet care including walking and fostering, available to people 65+ contact 01736 757900 or visit www.cinnamon.org.uk for more information.

Your diary and notes

Day 1

Day 2

Day 3

Day 4

Day 5

Day 6

Day 7

Day 8

Day 9

Day 10

Your ticket to **come in** to hospital

You are coming in to hospital on: / / At: : ^{AM}/_{PM} Area:

We want you to eat until: : ^{AM}/_{PM} and not after.

We want you to drink clear fluids until: : ^{AM}/_{PM} and not after.
(eg. water, black tea/coffee)

You **must** have a shower or bath at home on the morning of surgery.
Do **not** shave the operation site.

Do take these medicines on the morning of surgery:

Do not take these medicines on the morning of surgery:

Additional comments:

Your ticket to **go home**

We expect you to go home on: / / Who is going to take you home?

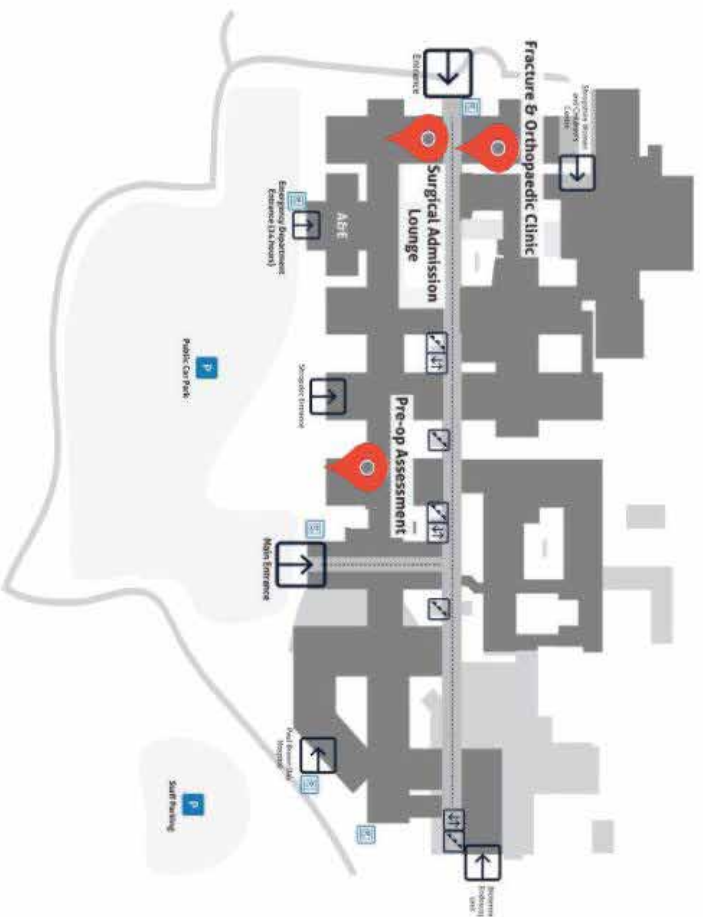
You will get home by (car/taxi/other)?

You have made the following care arrangements for discharge:

Welcome to the Princess Royal Hospital
The Shrewsbury and Telford Hospital NHS Trust



Ground Floor 10



First Floor



KEY

- Entrance
- Room
- Lift
- Waiting Area
- Reception
- Public Car Park
- Staff Parking

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