

A Patient's Guide to:

Total Knee Replacement

Presented with the compliments of Horder Healthcare for your Enhanced Recovery



Supporting your
ENHANCED RECOVERY

Please ensure that you bring this guide book with you each time you visit the hospital.

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1 INTRODUCTION

This guide book has been developed by the clinical team in partnership with patients to provide you and your support network with all the necessary information about having a knee replacement and your rehabilitation afterwards.

Please ensure that you read through this booklet thoroughly as it is an essential tool to guiding you through your recovery. It will inform you on how to prepare for your surgery, what to expect during your stay in hospital and how to make the most out of your recovery.

Please encourage those who will be supporting you throughout your recovery to read through this booklet as well so they will have an idea about the care you will be receiving.

We aim to assist you to make a speedy recovery and return to the activities you enjoy through our enhanced recovery programme.

One of the most important influences on your recovery is your participation. Following this guide and the advice you are given by Horder Healthcare staff will help you in achieving the best outcome following surgery. Your rehabilitation will be aimed at your individual needs and treatment can vary from person to person.

If you need clarification or have questions for which you are unable to find the answers in this book, please do not hesitate to ask a member of the team.

ENHANCED RECOVERY

Horder Healthcare has successfully adopted enhanced recovery principles for a number of years and we are always looking for ways to improve a patient's recovery.

The aim of the enhanced recovery programme is to promote health and improve the experience and wellbeing of people requiring major surgery by assisting them to return to full mobility as quickly as possible. There is a great deal of research around enhanced recovery after joint replacement surgery; and it has shown that the sooner patients get out of bed, begin to exercise and walk, start eating and drinking, the quicker they will recover.

THE 4 KEY ELEMENTS OF THE ENHANCED RECOVERY ARE -

- Optimising pre-operative preparation - Ensuring that patients are as healthy as possible before surgery and that they have been given the right education and information to manage their expectations after their operation.
- Intra-operative - Providing patients with innovative, high quality surgery that is minimally invasive.
- Post-operative - Early return to eating, drinking and mobility with early physiotherapy intervention. Good pain management and avoidance of post-operative complications.
- Discharge - Discharge is planned prior to admission. Early return to mobility, independent management of daily activities and hobbies are encouraged.

PATIENT QUESTIONNAIRES

Patient reported outcome measures (PROMs)

All patients are asked about their health and quality of life before they have an operation and at six months after surgery.

You will be asked to fill in a short questionnaire and consent form at your pre-admission appointment and then you will receive a second questionnaire by post six months after your surgery. The aim is to assess the effectiveness of the operation and therefore improve outcomes for patients. This is called PROMs (Patient Reported Outcome Measures).

For NHS patients your details will be held by the NHS Information Centre and is used to report upon and improve NHS services.

For private patients your details will be held by the Private Healthcare Information Network (PHIN) and will be used to improve private healthcare services and bring standards of data quality and transparency in line with the NHS.

Details of the feedback can be seen on our website www.horderhealthcare.co.uk or in your welcome pack, which you will find by your bed when you are admitted.

Do I have to take part?

Your help would be greatly appreciated, but it is not compulsory. However, the more people who do complete the questionnaires, the more information we have to improve outcomes for future patients.

Do I have to give my consent to participate?

We do need your consent for your personal details to be used and there is a consent form in the questionnaire that you will be given.

Your personal details will be held in accordance with the Data Protection Act, so that you can be sent the second questionnaire six months later.

Can I change my mind?

Yes, up to the point where the data is analysed and personal details removed. Withdrawing your information will not affect your medical or legal rights in any way. You can do so by contacting the PROMs team by any of the contact methods below.

Will my personal details be safe?

Published reports will not contain any personal details. The handling and storage of personal information will be undertaken to the very highest standards.

Contact and further information**NHS PROMs:**

Telephone: 0300 311 22 33

Website: www.nhs.uk/proms

PHIN:

Telephone: 020 7307 2862

Website: www.phin.org.uk

Patient Satisfaction Questionnaires

Whilst in hospital, a member of the team will provide you with a Horder Healthcare Patient Satisfaction Questionnaire. This is not a compulsory questionnaire but it does allow us to constantly review our service and we really would appreciate your feedback. You will be given the questionnaire either during your stay or on discharge. You can complete it and return on the day of your surgery, or send it back via post.

2 INFORMATION

ABOUT YOUR KNEE REPLACEMENT

The knee is a hinge joint where the end of the thigh bone (femur) connects with your lower leg bone (tibia). A healthy knee has smooth cartilage that covers the ends of these bones. This cartilage allows the bones to glide smoothly together when you bend your knee. The knee is surrounded by muscles which provide movement and ligaments that provide both strength, stability and support for the knee, allowing your knee to work effectively.

WHAT IS ARTHRITIS?

Arthritis simply means inflammation of the joints. There are many different forms of arthritis, the most common being osteoarthritis. Several different joints can be affected by osteoarthritis, most commonly the hips and knees.

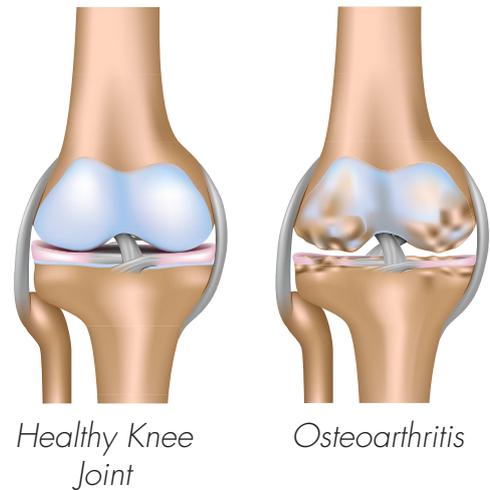
Osteoarthritis develops when changes in cartilage occurs resulting in wear and tear. This affects how the joints work and can cause the joint to become stiff and painful to move. Sometimes part of the cartilage can break away from the bone leaving the bone ends exposed. Bones may then rub against each other and the ligaments become strained and weakened. This causes a lot of pain and changes the shape of the joint. The symptoms of arthritis can vary depending on the degree and area of wear.

Other types of arthritis such as rheumatoid arthritis can also lead to the requirement of a joint replacement.

Arthritis can affect people of all ages. It is not clear what causes arthritis but there is plenty you can do to manage your condition, enabling a full and active life.

WHEN IS A KNEE REPLACEMENT RECOMMENDED?

- You have significant persistent pain throughout the day
- Your normal daily activities are severely restricted
- Pain from your knee regularly disturbs your sleep
- Your symptoms are not relieved by conservative or alternative treatments
- Your quality of life is significantly affected



CONSERVATIVE / ALTERNATIVE TREATMENT

- The use of analgesic (pain control) or anti-inflammatory medications to help manage pain
- The use of walking aids (walking sticks, crutches, frames) to aid mobility
- Physiotherapy and exercise to reduce stiffness and strengthen weakened muscles
- Weight loss (if appropriate)
- Diet supplements such as glucosamine and cod liver oil may relieve symptoms
- Steroid injections can sometimes reduce pain and stiffness for several months

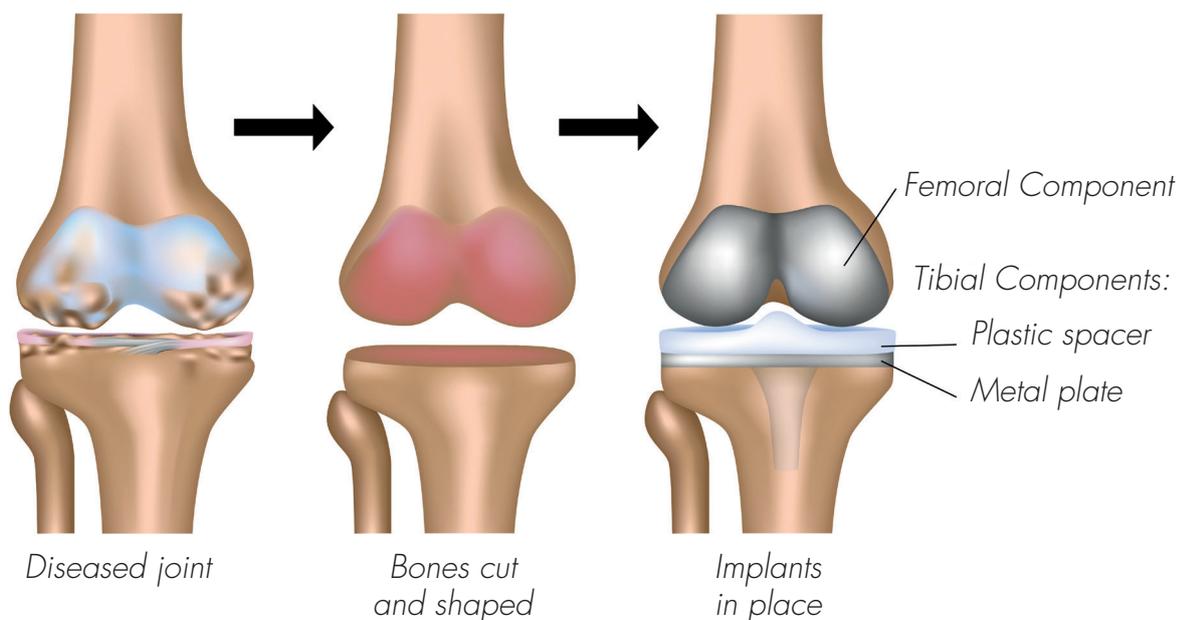
Arthritis of your knee usually, though not always, gets worse with time and more symptomatic. Arthritis is not life threatening but in itself can be disabling. Arthritic symptoms and relieving factors can be different for each individual.

WHAT IS A KNEE REPLACEMENT?

A knee replacement is a surgical procedure in which the knee is resurfaced with artificial parts. The surgical procedure involves removal of the arthritic parts of your joint which are then replaced with the artificial joint. Your knee replacement will consist of a metal shell on the end of thigh bone (femur) and a metal and plastic trough on the end of the lower leg bone (tibia). A plastic button may be used to resurface the back of the kneecap if needed.

Some prostheses are secured in the bone with bone cement, whereas others have a special coating that promotes bone growth (hydroxyapatite), which binds with the bone and does not require cement or fixation.

TOTAL KNEE REPLACEMENT



The aim of a knee replacement is to:

- Provide pain relief
- Allow you to walk a good distance again
- Correct deformity i.e. improve the alignment of your leg
- Relieve symptoms such as giving way and locking
- Improve your quality of life

3 RISKS OF A KNEE REPLACEMENT

As with any surgery, knee replacement surgery has risks as well as benefits. Most people who have a knee replacement do not experience any serious complications. The healthcare team will try to make the operation as safe as possible but complications can happen.

Please speak to your consultant if there is anything you do not understand or would like further clarity on.

ANAESTHETIC RISKS

Anaesthetics are extremely safe, but carry risks of minor side effects such as sickness and confusion (usually temporary).

There is also a slight risk of serious complications. The risk is higher if you are older or have other health conditions, such as heart or lung disease.

Your anaesthetist and surgeon can answer questions you may have about your personal risks from anaesthetic or the surgery itself.

GENERAL RISKS

Risks are categorised as below:

COMMONLY OCCURRING RISKS INCLUDE:-

- Pain - For most people, pain gradually eases during the first few months after surgery.
- Stiffness - Some people experience continuing or increasing stiffness after surgery. Usually this resolves as the swelling improves and with exercise.
- Bleeding during or after your operation. You may require a blood transfusion or iron tablets.
- Difficulty passing urine - You may require a catheter during the initial stages of your recovery if you have trouble passing urine. There are specific risks related to having a catheter, these will be explained to you if you require catheterisation.
- Post-operative nausea and vomiting: usually related to the anaesthetic or pain control medication.
- Constipation - A combination of inactivity and pain control medication can cause constipation. To help avoid this, drink plenty of fluids and eat foods rich in fibre. You will be offered medication to help your bowel movements.
- Blood clots in the leg or deep vein thrombosis (DVT) - clots can form in the leg veins as a result of reduced movement in the legs during the initial months after surgery. Your risk will be reduced by several key actions as follows:
 - wearing special support stockings and/or foot pumps whilst you are in hospital
 - starting to exercise as soon as you can after surgery
 - walking as soon as possible
 - taking anti-coagulant (blood thinning) medication as prescribed

- drinking plenty of fluids throughout your recovery period
- if you are taking HRT or Oestrogen based oral contraceptives you will be advised to stop taking them four weeks prior to your operation and for six weeks after your surgery.
- Prosthesis wear - the replacement parts of your knee replacement may become loose over time, however knee replacements last many years and early failure is not common.
- Decreased sensation around the knee – more usual on the outside of the leg, this normally resolves over your recovery period.

LESS COMMONLY OCCURRING RISKS INCLUDE:-

- Chest infection - This is usually treated with a course of antibiotics and if appropriate, chest physiotherapy. Early breathing exercises should be completed as a preventative treatment.
- Infection - this is usually treated with antibiotics, but occasionally the wound can become deeply infected and require further surgery. In rare cases it may require replacement of the artificial knee joint.
- Chronic pain - some people have ongoing pain or develop new types of pain. This is not usually caused by a technical fault or recognisable complication, and therefore it cannot be fixed by a repeat operation. This complication is known as complex regional pain syndrome.
- Excess scar tissue forming and restricting movement of the knee - further surgery followed by intensive physiotherapy may be able to remove this and restore movement.
- Haematoma - unexpected bleeding into the tissues surrounding the knee that can cause pain and restrictions in movement temporarily.
- Allergic reaction - you may have an allergic reaction to medications or products used

RARELY OCCURRING RISKS INCLUDE:-

- Blood clots in the lungs or Pulmonary Embolism (PE) - Occurs if a blood clot moves through your bloodstream and to your lungs. If symptoms occur, emergency investigation is required.
- Fracture of the bone - There is a chance of a fracture occurring during your knee replacement surgery. If this occurs it may lengthen your recovery period
- Delayed wound healing
- Damage to the nerves surrounding the knee which can cause temporary or permanent weakness or altered sensation.
- Ligament, tendon, artery or nerve damage in or around the knee joint
- Unexpected bleeding into the joint
- Bowel obstruction which may require further surgery
- Heart attack
- Stroke
- Death

REDUCING THE RISK

We are constantly striving to minimise the risk of knee surgery and there are actions that you can do to help reduce risks associated with your surgery:

- Ensure that you give us a clear picture of your current health, home situation and medical history when filling out your health questionnaire prior to your pre assessment appointment and whilst speaking to the team during your pre-operative assessment.
- Keep mobile, eat a healthy diet, stay hydrated and cut down or stop smoking and alcohol consumption.
- Good personal hygiene. Follow wound care instructions given to you on discharge.
- Whilst in hospital communicate with the team about how you are feeling.
- Take all of your medication as prescribed and for the full course of treatment.
- Manage rest and exercises to suit your body - ensure you are keeping the joint mobile but allow your body enough recovery time.
- Take regular pain control medication.

4 PREPARATION PRIOR TO SURGERY

GETTING READY FOR AN OPERATION

Patients who plan ahead have a better knee replacement experience. There is a host of things you can do to aid your rehabilitation from a knee replacement. This section of the booklet will guide you through the pre-operation process at The Horder Centre and advise you on how to best prepare for your surgery.

Pre admission clinic

You will be required to attend a pre admission clinic appointment before having surgery. Please ensure that you have completed your patient questionnaire prior to this appointment with as much information as possible. At this appointment, the clinical staff will assess your general health and discuss any individual risks to surgery and the anaesthetic that you may have. If deemed necessary you will be seen by an anaesthetist prior to your surgery and you may have to come back for another appointment.

We need to ensure that you are generally fit and well enough to be able to cope with the operation. A number of tests and investigations are carried out such as blood tests, an electrocardiogram to trace the rhythm of your heart and general observations of blood pressure, pulse and oxygen levels.

In certain circumstances, it may be necessary for you to have further assessments or treatment with your general practitioner (GP) before surgery can take place. Depending on the findings, this may mean that your surgery is delayed and some conditions may make it inappropriate to have surgery at The Horder Centre.

Joint school

During your pre assessment appointment you will also attend an educational session called "Joint School". Joint school is a group session where one of the therapy team will give you an informative presentation and an opportunity to ask any questions you may have in a relaxed setting. You will attend the joint school with others who are also having joint replacement surgery. You are encouraged to attend with a 'coach' - a friend or relative who will be able to motivate and encourage you in your recovery.

National Joint Registry (NJR)

You will be asked to sign a consent form for the National Joint Registry (NJR). The NJR is a national body that keeps a record of all types of artificial joints used. It is very important that you read and sign this form as the data used by the NJR helps to identify the best performing artificial joints and the most effective types of surgery. You can find out more information on the NJR by visiting their website www.njrcentre.org.uk

PREPARING YOURSELF FOR SURGERY

Be positive and set goals

Going through knee replacement surgery can be a daunting process. At times, the rehabilitation process can be challenging both physically and emotionally so it is important that you have as much support in place as you can and have prepared yourself as much as possible before surgery. Some people find it useful to write a diary/log of their journey whilst others like to stay in touch with other patients they met whilst in hospital.

One of the most important things to remember about having a knee replacement is that although the operation aims to take away the pain of arthritis, the recovery process relies wholly on your engagement with good self-management and can take a long time to feel 'normal'. Be patient and positive with your recovery - remember everyone is different and what is right and normal for you will not be for the next person.

Setting yourself regular goals throughout your journey will aid your rehabilitation. We recommend that you set yourself a weekly goal to aim for - these should be based on your normal daily activities but also your hobbies and things that you enjoy. In preparation, we recommend that you make a list of things that you want to get back to after the operation; these can then be discussed with the therapy team whilst you are in hospital to give you an idea on timelines.

Eating

Prior to your surgery, we advise that you eat a well-balanced diet eating plenty of fresh fruit and vegetables to aid your recovery. Ensure that you eat sufficient protein as this will help your body heal and fight infection after surgery. Make sure you include iron in your diet. Eating well will help you feel at your best and recover sooner after surgery. If you are overweight, it would be of benefit to you to lose some weight prior to your operation. If you would like help with losing weight please speak to your GP.

Keep hydrated

Ensure that you keep yourself well hydrated before and after your operation as it assists with healing and prevents complications. It is recommended that you drink 2 litres of water a day.

You will be telephoned the afternoon before your surgery with your arrival time and instructions regarding when to stop eating and drinking. Please ensure that you drink water right up until the time that you have been advised. Being unnecessarily dehydrated prior to surgery can increase the risk of developing blood clots.

Smoking

Smoking is actively discouraged, particularly prior to and immediately after surgery as this can add to complications of surgery and will delay healing. You may find it helpful to discuss giving up smoking with your GP or practice nurse. Smoking is not allowed within the hospital building.

Alcohol

You should try to reduce alcohol consumption in the weeks leading up to your operation as this can reduce the risk of developing complications. If you drink regularly or drink large quantities of alcohol, we recommend that you speak to your GP before suddenly stopping alcohol. We ask that you do not drink alcohol 48 hours before the day of your operation.

Health

If we were to operate on you when you had an infection, for example a tooth abscess, the infection could travel through your body in your blood stream and enter the joint and cause problems. It is very important that you have such problems treated straight away - please visit your GP or dentist if you have concerns and be sure to keep us updated at The Horder Centre. Wounds and scratches could potentially lead to your operation being cancelled, so please take care of yourself in the weeks leading up to your operation.

Exercise

Please continue with any exercises or activities that you are comfortable doing in the lead up to your operation. Please begin your exercises before surgery as shown in section 11. These exercises are designed to prepare you for your operation and recovery after surgery.

Discharge planning

It is vitally important that your home situation is suitable for you whilst you are recovering from a knee replacement and that you have the right support in place. You will be advised at your pre-assessment appointment of your planned discharge date. It is important that you take the following steps prior to your operation to ensure that you are well prepared for going home.

Preparing support

It is important that if available, you ask a family member, friend or caregiver to support you throughout your knee replacement journey. During the initial recovery stage, you will benefit from support at home to ensure that you are safely able to return to your daily activities. We advise that you have someone with you for the first few nights or that you are able to stay with the person who will be supporting you. You will require day to day support with things like shopping, meals, driving to appointments etc. The amount of support required following discharge varies from person to person - you will not be discharged from the hospital unless it is deemed that you are both medically and physically fit to do so. To ensure that there is no delay to your operation date, it is your responsibility to ensure that you have the right support in place prior to your operation. If you have concerns about how you will manage at home, please speak to a member of the therapy team who will be able to advise you further. If you are normally the carer for someone else, please ensure that you have set up sufficient support for them prior to coming into hospital.

Please be aware that you may not be able to physically help someone else for the first 6 weeks.

Preparing transport

Please ensure that you have made transport plans for all your appointments, your admission and discharge. If you are unable to arrange your own transport please contact the hospital as we have transport services available (charges may apply).

Preparing your home

You need to make sure that you have prepared your home environment prior to your operation so it is well set up for your return after your operation. The therapy team will assess your equipment needs throughout your journey. If you need any equipment for your home this will be provided to you. We advise you do the following –

- Declutter - following a knee replacement, space in your home is key to safety. Ensure that there is enough space to move around your home using walking aids; this may mean moving furniture prior to surgery.
- Remove trip hazards - Remove rugs, ensure electrical cords and wires are out of the way and remove any other items on the floor that have the potential for you to trip over.
- Have a suitable chair to rest in - it needs to be sturdy with solid arms and back and that is comfortable.
- We recommend that you have somewhere to place the items you will need regularly (phone, glasses, remote controls, medications, water) within easy reach.
- Check that your bed is a sensible height - you should be able to comfortably get in and out of bed. If your bed is the wrong height you could be putting yourself at risk. If you are unsure if your bed is a sensible height, please bring the height measurement of your bed into your pre-assessment clinic and discuss with the therapy team.
- Stock your freezer with easy to prepare meals - we recommend planning wholesome and nutritious meals that are easy to prepare for the first couple of weeks after your operation.
- Shopping - ensure that your home is well stocked with all the essentials to limit the amount of shopping trips in the initial stages of recovery.
- Work out how you will carry things around your home - when using walking aids, simple tasks like carrying an item from one place to another can become difficult. Some patients have found the use of a small cross shoulder bag or backpack very useful.
- Ensure there is good lighting throughout your home.
- Make sure that your bathroom is well organised - we recommend non-slip mats for the shower. Remove bath mats and any clutter if they are likely to be a trip hazard in your bathroom.
- Check that everything you need is in reach so you will not have to go onto your tip toes or have to bend down low.
- Ensure there is good lighting throughout your home.
- If you go to the toilet at night, ensure your pathway can be kept clear and that there is good lighting.
- Housework - ensure that you have completed all household chores (cleaning, vacuuming, cut the grass etc.) prior to coming into hospital.
- Pets - make arrangements for your pets to be looked after prior to coming into hospital.

Please contact the pre assessment team if you develop any of the following (however mildly) before your operation:

- Cold, flu or chest infection
- Cough, sore throat or ear ache
- Problems passing urine (burning or unpleasant smell)
- Any broken skin, insect bites, scratches, red inflamed spots, infected hair follicles, blisters, leg ulcers, pressure sores or any other suspicious skin lesions

Or if

- You require any urgent dental work
- You sustain an injury
- You have started antibiotics for any reason
- There is any change to your general health since pre-assessment
- Your personal circumstances change that affects your support on discharge

Pre-assessment team at The Horder Centre – (01892) 600811**Vena Puncture clinic**

A few days prior to your surgery, you will be requested to attend a venepuncture clinic. During this visit you will have a blood sample taken which confirms your blood type and identifies specific antibodies present in your blood. The National Transfusion Service requires two of these tests, the last being taken within 6 days of your surgery. Please speak to staff if you have any last minute concerns prior to your operation.

What to bring in to hospital

- Nightwear (no silk fabrics and only light dressing gowns)
- Loose comfortable clothing - You may be booked into hospital for a couple of nights and we advise that you bring enough for a couple of changes of clothes in case of delayed discharge or soiled clothing.
- Underwear
- Toiletries (soap, shampoo, shower gel, minimum of 2 flannels, toothbrush, toothpaste)
- Mobility aids already in use (sticks, crutches etc.) Please make sure they are in good working order
- Supportive footwear with backs – no flip flop style slippers
- Entertainment (book, tablets and magazines etc)

- All medications you currently take - in their original boxes. No "dosette box" system of medication storage can be accepted. Your GP practice will need to dispense a 7 day supply of medication in separate boxes.
- Dressing aids if you have them (long handled shoe horn, grabber etc.)
- Glasses, hearing aids and dentures (if worn)
- Your favourite snacks

Please do not bring the following

Valuables

Jewellery

Large sums of money

Large heavy bags

Unsuitable shoes - flip flops, shoes without backs

BEFORE YOU COME INTO HOSPITAL

The day before your surgery

Please have a shower the evening before and also on the morning of your operation. This is part of your preparation for surgery as it may help to reduce the potential risk of infection.

Before having an operation, it is normal to have a fasting time (eating and drinking). This is very important in order to avoid anaesthetic complications so it is vital that you have understood and adhere to the instructions that you are given. Please continue eating and drinking up until your fasting time. If you fast for too long this can have a detrimental effect on your recovery.

5 HOSPITAL STAY

ADMISSION

The day you are admitted to hospital will be the day of your operation.

When you arrive at the hospital, please report to main reception where you will then be shown through to the admission area. You will be taken to the admissions ward and not to your post-operative room. The length of stay in this area is dependent on what time your surgery is planned, but it is usually between 1 and 4 hours.

You will be seen by various members of staff who will help prepare you for the operation and complete checks to ensure you are fit for surgery. Surgeons and anaesthetists will normally see their patients at the start of the morning and afternoon lists. Family and friends can stay with you until you are called for theatre. We advise you bring a book as this waiting period can sometimes feel lengthy. You can remain in your clothes until staff advise you to change into a hospital gown.

The medications that you normally take at home will be checked, counted and recorded by the nurse on admission. The doctor will prescribe these on your drug chart and any further drugs that you might need whilst in hospital. This usually consists of anti-sickness medication, anti-coagulants, antibiotics and analgesia (pain control). Either a nurse or a pharmacist will check your drug chart and dispense any new medications prescribed.

ANAESTHETIC

You will normally see your anaesthetist prior to surgery to discuss your anaesthetic options.

Decisions regarding your anaesthesia are tailored to your personal needs. These may include:

General Anaesthesia

A general anaesthetic gives a state of controlled unconsciousness during which you feel nothing, but may be associated with some risks. Your anaesthetist can discuss this with you.

Sedation

Depending upon the dose given, this can range from feeling relaxed and mildly drowsy with some degree of memory of being in theatre, to sleeping with no recollection.

The dose will be tailored to your needs with the aim to achieve safety and the level of sedation you are happy with and give you a positive experience in theatre.

Noise etc. may alter your level of sedation. If this bothers you we can give more sedation.

Sedation is commonly used in conjunction with a spinal anaesthetic.

LOCAL/REGIONAL ANAESTHETIC TECHNIQUES

Spinal Anaesthetic

This is an injection in the small of your back (similar to an epidural) which makes your lower body profoundly numb from about the waist downwards. It provides complete pain relief during the operation and for several hours post-operatively. It will also inhibit movement and make your legs feel quite heavy. This should wear off a few hours after the operation.

This technique can be used as a sole anaesthetic or in combination with sedation or a general anaesthetic (see combinations below).

A spinal anaesthetic is the most frequently used type of anaesthetic for knee replacement at Horder Healthcare (see combinations below).

A Nerve Block

This is an injection of local anaesthetic near to the nerves which go to your leg.

Part of your leg should feel numb and this provides pain relief for some hours after the operation. This injection may inhibit movement and the effect should wear off by the next day.

This technique will always require a general anaesthetic as well.

Local Infiltration

Local anaesthetic may be injected directly into the area being operated on by the surgeon. This adds additional pain relief for the post-operative period.

A combination of anaesthetics

You may be offered a combination of these anaesthetic techniques for pain relief both during and after surgery.

Spinal & Sedation

This combines the benefits of the spinal anaesthetic and drowsiness of sedation such that you can doze through your operation. The level of sedation can be tailored to your needs. This technique usually leaves you less groggy afterwards and reduces your risk of feeling sick post-operatively.

Spinal & General Anaesthetic

This combination may be offered instead of spinal/sedation above. Although this means you will be unconscious throughout, it carries a higher risk compared with sedation.

General Anaesthetic & Nerve Block

This combination may be offered if a spinal anaesthetic is deemed unsuitable for you.

WILL I HAVE ANY SIDE EFFECTS?

On the day of your surgery your anaesthetist will discuss the risks and benefits associated with the different anaesthetic options, as well as complications or side effects that can occur with anaesthesia.

Nausea or vomiting may be related to anaesthesia or the type of surgical procedure. Although it is less of a problem today because of improved anaesthetic agents and techniques, these side effects continue to occur for some patients. Medications to treat nausea and vomiting will be given if needed.

The amount of discomfort you experience will depend on several factors, especially the type of surgery. Your doctors and nurses can relieve pain with medications but it is important that you take pain relief as soon as advised because it is easier to keep pain at bay rather than try to reduce it once it has reached an intolerable level. Your discomfort should be tolerable, but do not expect to be totally pain-free. The staff will teach you how to use the pain scale to assess your pain level.

THE OPERATION

Immediately before surgery

You will be collected from the admissions area and escorted to walk to theatre. Assistance will be given if you are unable to walk. Before you enter theatre, you are seen by the anaesthetist again in the anaesthetic room where the appropriate anaesthetic, as previously discussed between you and the anaesthetist, is administered.

During surgery

The theatre team will be wearing specialist clothing and working under a state of the art special airflow system to minimise chances of infection. In the operating room, the anaesthetist will manage your medical condition, including heart rate and rhythm, blood pressure, body temperature and breathing. The anaesthetist is also responsible for fluid and blood replacement when necessary.

The operation involves -

- Cleaning the operation area with a cleansing agent which will stain your leg with a pink dye.
- Making an incision (cut) over the front of your knee. The size depends on both the complexity of your operation, as well as your physical size.
- The knee cap (patella) is rotated out of the knee area to allow the surgeon to perform the knee replacement.
- The worn-out parts of your knee are removed and replaced with the artificial joint. If the back of the knee cap is worn, this damage will be removed and a plastic cap used to resurface the back of the knee cap.
- The artificial joint may be fixed in place with bone cement depending on the type and style of implants used.
- The surgeon will bend and straighten your knee to ensure the artificial joint is working correctly and that the alignment, sizing and positioning is suitable.
- The incision is then closed with stitches/staples.
- The wound is covered with a dressing and sometimes a bandage.

BLOOD TRANSFUSION

Like all medical treatments, a blood transfusion should only be used when really necessary. The decision to give a blood transfusion to a patient is made only after careful consideration. In making that decision, the clinical team will balance the risk of you having a blood transfusion against the risk of you not having one. At pre assessment you will be given a NHS blood and transplant patient information leaflet which contains more information about blood transfusions - please refer to this leaflet. If you do require a blood transfusion after your operation or have received a blood transfusion during your surgery, the clinical team will discuss this with you in further detail.

AFTER SURGERY

After surgery, you will be taken to the recovery room where staff will monitor your pain control and your vital signs. Foot pumps and knee length stockings are used as soon as the surgery is complete. These help keep the blood circulating in your legs, which helps to prevent blood clots from forming.

You can also help this process by moving your feet, ankles and legs as soon as you are able to do so.

The clinical staff will continue to monitor your vital signs until they are happy that you are ready to transfer to your room on the ward.

When you are medically well enough, you will be transferred from the recovery room to your own room on the ward where you will meet the ward staff including Nurses, Health Care Assistants, the Resident Medical Officer, Physiotherapists and Therapy Assistants who will all be on hand to assist you with your recovery.

DIETARY REQUIREMENT

You will have a choice of meals to select from. However, if you have special preferences or special dietary needs, please let a member of staff know in order for us to ensure that this is catered for. Ideally, please let staff know when you attend your pre-assessment appointment so that preparations can be made in advance.

VISITORS

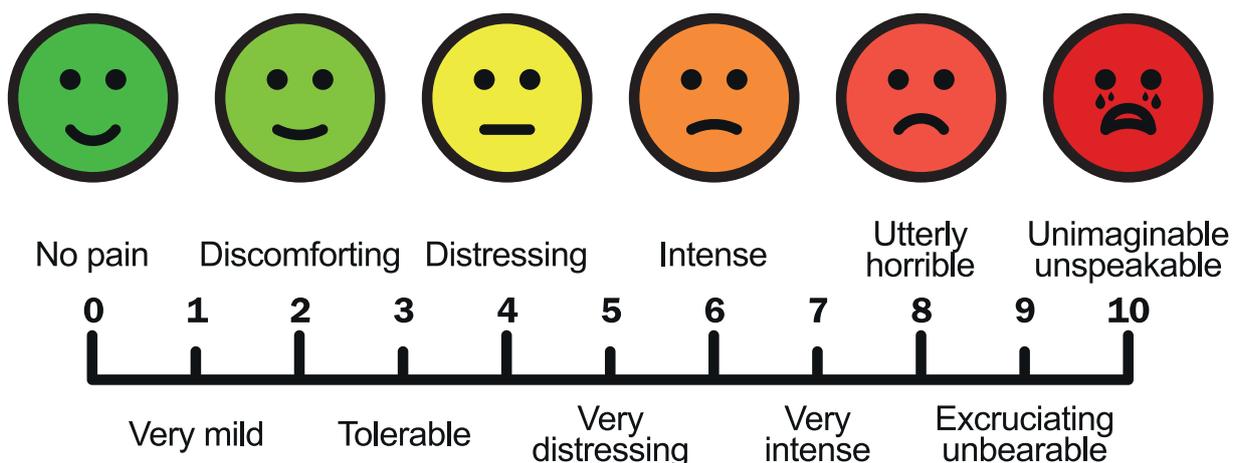
Visiting hours are 14.00 - 20.00 and we advise a maximum of two visitors at one time. Please ensure your visitors are aware that their visit may be interrupted when physiotherapy and clinical treatments are being delivered. Car parking is free for visitors. Your relatives and friends will of course be concerned about you and will want to telephone the hospital to ask after your wellbeing. In order to prevent the clinical team from being taken away from the important job of caring for you, we ask that you have one family member or friend delegated to telephone in and keep everyone informed.

6 MANAGEMENT OF PAIN FOLLOWING YOUR SURGERY

A varying level of pain can occur for several weeks after your knee replacement. The amount of pain you will experience following your surgery is determined by a multitude of factors and varies greatly from person to person. Whilst you are in hospital, the team will focus on managing your pain so that you are able to actively participate in your rehabilitation process. Your discomfort should be made tolerable but it is very rare to be completely pain free. Managing your pain relief effectively is an essential part of your care.

The clinical team will prescribe pain relief for you and review this with you throughout your stay. It is important that you discuss your pain levels with the nursing team so they are able to effectively manage your pain. Prevention or early treatment of pain is far more effective than trying to treat established or severe pain. At regular intervals you will be asked to score your pain on a scale of 0 - 10.

Please refer to the scale below for guidance.



Pain relief is available in different forms and strengths. The clinical team will work with you to establish the best pain relief combination for you. Pain relief can be given in tablet form orally, intravenously through a drip in your hand, through injections into a muscle or vein or by suppository which is inserted into the rectum.

Effective pain control is achieved by taking pain control regularly. Some patients wish to avoid pain relief as they are concerned about the side effects. If you do not take pain control you are unlikely to want to participate in moving your knee which increases the risks of developing post operative complications.

Side effects may include:

- nausea and vomiting
- constipation
- headache
- dizziness
- fainting
- feeling sleepy
- mild confusion

These side effects can be reduced with anti-sickness drugs, plenty of fluids, laxatives and regular rest periods. Please let the nurses know if you feel any of these side effects.

If you are taking other medications or have had a reaction to a medication in the past, please let us know.

MANAGING PAIN AT HOME

Pain should decrease throughout your stay in hospital but once you return home, you will need to actively take steps to manage your pain. Swelling can cause discomfort that can last several weeks but decreases as you become more mobile. Bruising, which can cause tenderness is normally apparent for the first few weeks.

Pain, swelling and bruising are all a normal part of the healing process after a knee replacement. However, there are ways to manage pain to ease your recovery.

There are **5 key steps** you need to take to reduce the pain you experience -

1. **Medicate** - You will be prescribed pain relief to take home with you to see you through the initial stages of your recovery. Continue pain relief as required, take them as directed and do not exceed the stated dose. Further supplies can be obtained from your GP or your local pharmacy.
2. **Rest** - Knee replacement surgery takes a large toll on your body. Successful recovery is influenced by finding the right balance of rest and exercise, which is different for everyone. Swelling and pain can be linked to over activity. In the initial stages you will be resting for longer periods. As you start to recover, your rest times should decrease. We recommend that you rest in a chair but in the initial recovery stage it is okay to take a short rest on the bed a couple of times a day if you feel you need to. If you do not get adequate rest, your pain can worsen.

- 3. Move** - Whilst rest is important this must be balanced with movement, either completing exercises or walking. It is recommended that at least once an hour one of these activities should be completed. Movement is vital to decrease the risk of complications and progressing your recovery as well as decreasing pain. If you stay in one position for too long you can become very stiff and uncomfortable and it can become difficult to move again - this can be avoided by regular movement.
- 4. Ice** - Using ice is essential for pain management following knee replacement surgery. Ice reduces pain by preventing and reducing swelling, reducing bleeding into the tissues, reducing muscle pain and spasms as well as causing a numbing effect to the area. Please see section 8, managing at home, for further advice on how to use ice.
- 5. Elevate** - Elevating your legs aids circulation and reduces swelling and pressure. When elevating your legs on the bed, aim to have your feet higher than your hips by resting your legs on pillows/blankets. When elevating your legs in a chair, use a secure footstool and if possible vary the level of elevation by adding and taking away cushions.

7 AFTER SURGERY

What to expect:

After the operation you can expect to feel drowsy for a while, your legs may feel heavy and unable to move. You may have a drain from the operation site as well as a bulky bandage around your knee. Pain control will initially be given through a cannula which is inserted into the back of your hand. You will receive oxygen either through a face mask or through your nose until it is no longer required. The nursing team will need to monitor your observations regularly. This will include taking your blood pressure, pulse, temperature, monitoring your pain score, respiration rate and oxygen saturation. These will continue into the night so please be prepared as we may need to wake you through your first night with us.

You can usually eat and drink after the operation as soon as you feel well enough to do so. You should begin your exercises as soon as you can after the operation. Once you have been on the ward for a few hours a member of the nursing or therapy team may come to get you out of bed and encourage you to take a few steps.

Goals:

1. Complete exercises 6 - 13 (Section 11)
2. To get out of bed and take a few steps with clinical staff

DAY 1 AFTER SURGERY

What to expect:

Each morning the Resident Medical Officer will complete a ward round with the nurse looking after you to discuss your progress. During that first morning the bulky dressing, drips and drains will be removed. Where appropriate you will be given blood thinning medication, pain control and antibiotics. The nursing team will monitor your observations, wound and dressing (dressings will only be changed where necessary).

If you feel well enough, you may be able to have a wash at the sink. If not, a bowl will be provided for you to have a wash sitting on the side of the bed. We encourage all patients to dress in loose comfortable clothing (not pyjamas). A member of the physiotherapy team will visit you to go through the initial exercises you need to complete to aid your recovery and to progress your walking - initially you will mobilise with a walking frame but will move onto elbow crutches or walking sticks when you are ready. Ice packs are available throughout the day for you to apply to your knee to reduce the swelling. The clinical team will confirm your discharge plans with you on this first day.

Goals:

1. To complete exercises throughout the day (6 - 13 - Section 11)
2. To transfer from the bed to the chair with little or no assistance
3. To sit in a chair for both lunch and dinner
4. To be independently mobile to and from the bathroom (if you have been deemed safe) and walking regularly throughout the day using the techniques taught by the therapy team

Avoiding falls in hospital

A fall following your surgery could result in soft tissue or bone damage and can be avoided by following a few simple steps:

- Ensure you are always wearing suitable footwear
- Use mobility aids as instructed
- Turn the lights on when mobilising at night, you can turn the lights on from your call bell
- Always use the call bell in hospital when you require assistance
- Do not try to lift, unpack or carry things by yourself
- Do not rush, take your time when mobilising and completing activities
- When mobilising, try not to get distracted
- If you are feeling unwell, tell a member of the team as soon as possible
- Wear your glasses and hearing aids where required
- Tell a member of the team if you have any concerns about your safety

DAY 2 AFTER SURGERY**What to expect:**

You will continue to receive medication throughout the day. The nurses will take your observations but they will become less frequent throughout your stay. You will have a post-operative x-ray, if it has not yet been completed. The x-ray will be reviewed by the Resident Medical Officer. We encourage all patients to dress and wash independently. You are likely to attend a physiotherapy class both in the morning and afternoon of the second day with other patients who are at a similar stage of recovery. During these classes the physiotherapists will guide you through exercises, measure the strength and range of movement in your knee, progress your walking, practice stairs with you and they will also give you an educational talk to advise you on your recovery and give you rehabilitation guidelines.

The physiotherapist will check if you require any equipment for home. For those patients who are medically fit, there is a possibility of discharge home if all discharge criteria have been met.

Goals:

1. To wash and dress with little or no assistance
2. To attend physiotherapy classes
3. To be independently mobile, walking with the aids as instructed by the physiotherapist
4. To negotiate a flight of stairs under the supervision of a physiotherapist
5. To be discharged home if all discharge criteria has been met

DAY 3 AFTER SURGERY**What to expect:**

In the morning you will be seen by the nurse and Resident Medical Officer, who will complete their final checks, to ascertain if you are medically fit to return home. You will attend a final class where you will run through your exercises, walk with your walking aids and negotiate stairs. Once you have been deemed fit for discharge, the team will prepare your paperwork and anything else that is required for you to return home. Before you leave, you will receive the medication that you are taking home. This will be discussed with you by the nurse or pharmacist. Please remember to check the labels on the medication for the instructions.

Goals:

1. To wash and dress with no assistance
2. To attend physiotherapy class
3. To understand what medications you are taking home with you, how and when to take them
4. To have a good understanding of your recovery journey and what to expect

DISCHARGE

Following a review of your medical and physical status by the team your discharge process may begin, we aim to complete this by 11am. If you cannot be collected by this time, you may be asked to wait in the discharge lounge. Occasionally discharge times can be delayed if a patient requires further medical intervention or an additional physiotherapy assessment. If so, the nurses will keep you updated but please ensure that you have prepared whoever is coming to pick you up from hospital.

If you are travelling a long distance, you need to plan to make frequent stops and remember to take your pain relief before you leave the hospital. You may find it useful to have extra pillows in the car for comfort.

Discharge goals:

1. To be independently mobile with walking aids
2. To be able to negotiate a flight of stairs safely if required
3. Achieve an adequate knee bend
4. Your observations must be within normal range (e.g. Heart Rate, Oxygen Levels, Blood Pressure, and Temperature)
5. Your pain must be controlled – you will not be pain free, but it should be tolerable

You should feel prepared to go home. If you have any further queries, please do not hesitate to ask for information, either whilst you are in hospital or by giving us a call when you get home.

Follow up appointments

You will be asked to attend an appointment following discharge for a wound check and to remove any sutures or clips. Most people are required to make an appointment with their GP, whilst some will be asked to return to where they saw their consultant. You will be given specific instructions regarding this. If this is not possible, we may need to arrange a district nurse to visit you. Upon discharge, we will provide you with the date and time of your follow up appointment with your consultant or clinical nurse specialist. If further outpatient physiotherapy treatment is required, this will be discussed with you and you will receive your appointment once you return home.

Ongoing care

If you feel you will require ongoing care following discharge, this must be discussed at the pre assessment stage. If your circumstances change between pre assessment and your operation then you must notify the therapy team via pre assessment.

For ongoing care referrals into NHS services, there is strict referral criterion in place and these services can take time to access. If you are considering privately funded care after your operation, please speak to one of the pre admission team as they may be able to advise you further.

Helping your recovery

At Horder Healthcare, we pride ourselves on providing our patients with the highest standard of care and this continues once you have left hospital. If you have any problems, queries or worries concerning your recovery, please do not hesitate to contact us.

8 MANAGING AT HOME

BECOMING MOBILE AGAIN

Moving around regularly is very important for your recovery. Initially you should change your position every 30 - 40 minutes to reduce the amount of stiffness. You are able to mobilise outside when you feel ready. You should increase your walking distance daily and gradually.

Progressing with your walking aids

On discharge from hospital, most people are walking with either two walking sticks or two elbow crutches. Unless you have been specifically instructed not to discard your walking aids, this is the progression you can follow -

- Within two weeks, you can begin to wean yourself down to one walking aid indoors. Please ensure you keep this in the opposite hand to your operated leg. You will know when you are ready for one walking aid; it is when you can manage the same with one as you can with two and without a limp. If you do notice yourself limping, it is best to remain using your walking aids a little longer whilst you continue to strengthen.
- You will need to use two walking aids for longer outdoors as you will generally be walking further. It may be a little uneven and it may be slippery. Progress yourself outside when you feel able.
- By the time you come back for your follow up appointment, you should be aiming to walk without your walking aids indoors and may only need one walking aid outdoors for longer distances.

Rest and activity

It is perfectly normal to feel tired and rather vulnerable in your first weeks at home. You may also feel frustrated at not being able to do all the things you want. Making a plan to gradually increase your activities over the following weeks may help, but ensure you do things at your own pace. Another useful idea is to set aside time each day for total relaxation, making sure your friends and relatives know that you do not wish to be disturbed.

Try to limit your number of visitors in the initial stages of your recovery.

What to avoid

Until your knee is fully healed (which can be up to three months) you need to avoid the following-

- Extremes of movement (squatting, sitting on low furniture, getting into a bath tub etc.)
- Kneeling
- Heavy lifting
- Twisting and pivoting on your knee
- Performing high impact sports
- Crossing your legs

Ice

Using ice packs on your knee can reduce inflammation and pain. It is particularly effective for the first few weeks after surgery and during periods of discomfort. You can use ice on the knee for as long as you feel it is of benefit. Ice packs are available for purchase from the hospital reception or ward. You should use an ice pack on your knee for 10 - 15 minutes each hour at least 4 times a day in the initial stages of recovery.

Sleeping

Changes in routine and restricted movement can cause difficulty in sleeping and some people are woken up by the discomfort caused by sudden movement. If this does happen, you may wish to take pain relief to help you sleep. You can sleep on your back or either side. When lying on your side, place 1 or 2 pillows between your knees and ankles to help the leg relax and to support your knee. When lying on your back do not use pillows horizontally under your knees. This will keep them bent and it is important that you are able to get your knee completely straight.

Healing

All wounds progress through several stages of healing. Depending on your treatment, you may experience such sensations as tingling, numbness and itching. You may also feel a slight pulling around the stitches or staples and a hard lump forming. This is perfectly normal and is part of the healing process. However, if your wound starts swelling, bleeding or discharging then you should contact the hospital.

Eating

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

You can have a small amount of alcohol. However if you are on medication, you should consult your GP before drinking any alcohol.

Bowel care

A difference in diet, change in level of activity and the new medication can lead to irregular bowel habits. We may prescribe softeners or laxatives to have whilst you are in hospital to assist with constipation. This is perfectly normal and the problem should correct itself in time.

However, if this persists and you have problems opening your bowels you should contact your GP. You can also help yourself by eating a high fibre diet with plenty of fresh fruit and vegetables and by drinking lots of water.

Washing

When taking a shower you can use cling film over the dressing. It can be reassuring to have somebody else in the house to help you, should the need arise. Please refrain from having a bath or soaking the wound until it has fully healed.

Avoiding falls at home

- Avoid going outside in bad weather if possible
- When walking outdoors, avoid poorly maintained pavements, unlit streets and slippery surfaces. Try to walk with a walking partner.
- Ensure you wear sturdy shoes with a good gripping sole
- Remove trip hazards around your home - mats, clutter, loose wires etc.
- Ensure your home is well lit. Make sure you put lights on when mobilising at night.
- Use handrails on stairways if available
- Never rush to answer the telephone or door
- Do not carry too many objects
- Use non slip mats in your bathroom

Sexual activity

Sexual intercourse may be resumed with care when you feel comfortable to do so. Avoid putting your knee in an uncomfortable position.

Housework

Initially you will require some help with household tasks especially those which involve carrying items or kneeling. We advise you to avoid sitting for a prolonged period, you should avoid standing for long periods too. Initially try to avoid standing in one position for any longer than 10 minutes. If you are feeling up to it, you can start doing light housework within a couple of weeks however heavy housework should be avoided until 6 weeks.

You must only return to heavier activities after 6 weeks, as you feel ready to do so. Ensure you introduce activities gradually.

Pain medication

It is important that you take your pain relief as directed or as needed to assist you with your daily activity.

If you have persisting abnormal symptoms (such as nausea, vomiting, insomnia, hallucinations) or your pain is not controlled after taking your pain relief, please speak to your GP to see if your pain relief regime needs changing.

Please refer to section 6 for more information.

Reducing your pain medication

As your pain decreases, you can begin reducing the dose of your pain relief. You should not just stop completely. You can also try increasing the time between taking your medication before completely stopping. You may need to take pain relief for longer at night to help you sleep. If you have any further questions, please speak to the nursing or pharmacy team.

Caring for your wound with clips

- Keep your wound dry
- Keep your wound covered with the dressing you are discharged wearing until your clips are removed, usually 10 - 14 days after surgery. The hospital will send you home with extra dressings.
- You may shower every day. After showering, apply a new dressing if necessary.
- Please contact the hospital if there is increased fluid discharge, redness, pain, odour or heat around the wound. Take your temperature if you feel warm or sick. Call the hospital if it exceeds 38°C.
- Should you have any concerns you can contact The Horder Centre at any time.

Dressing change procedure

If your dressing needs changing before your wound check appointment, please follow this procedure:

Wash hands and open the new dressing packet. Remove the old dressing from the wound and inspect for the following:

- Increased redness
- Increased and clear drainage
- Yellow/green fluid discharge
- Unpleasant odour
- Surrounding skin is hot to touch

If you note any of these symptoms, please contact the hospital.

Continue the procedure as follows:

- Pick up the new dressing and take off the backing paper.
- Be careful not to touch the inside of the dressing.
- Holding the dressing by its corners and lay it over your wound.
- Smooth the sides of the dressing over your skin.
- When in position on your skin, remove the outer plastic layer. This will leave a clear dressing with a centre pad on your wound.
- Ensure all the sides adhere to your skin.

Concerns when at home

If you experience any of the following symptoms at home, you must seek medical attention as soon as possible:

- Pain in your chest, difficulty breathing or shortness of breath
- Wound becomes red, hard, hot, swollen or begins to ooze
- Redness or pain in your lower legs
- Chills and a fever (above 38.5°)
- Sudden difficulty walking
- Blood in your stool, urine or sputum and increased bruising

Please either call the hospital or visit your local accident and emergency department.

Post discharge goals

Recovery times vary person to person and it is important to remember that a number of things can influence how quickly you will recover following a total knee replacement such as how active you were prior to the operation, degree of arthritis, age and pre-existing health conditions. Below is a guide for recovery goals following your discharge from hospital. To assist your recovery, we advise that once a week you set around three new goals that are specific to the tasks that you need to do and the activities which you enjoy doing.

GOALS**Weeks 1 - 2**

Following your discharge from hospital, the main priority is to ensure that you safely and comfortably return home (unless you have been referred for ongoing care). You should be gradually increasing your functional mobility and although you will still experience a degree of pain, this should gradually decrease. Your goals for the period are to:

- Walk independently outdoors (on flat ground) using your walking aids as instructed, increasing the distance daily.

- Manage stairs on a daily basis
- Be independent with washing and dressing
- Complete all exercises as instructed. You should be aiming for a knee bend of at least 90° (a right angle). Please do not be concerned if you are still struggling with some of the exercises, especially the exercises where you have to lift your leg against gravity. Keep practicing and you will regain your strength but this can take a few weeks.
- Gradually resume gentle household tasks like preparing a meal.

Weeks 2 - 4

Weeks 2 - 4 will see you recovering to more independence. Even if you are receiving outpatient therapy, you will need to be very committed to your home exercise programme to be able to achieve the best outcome. Your goals for the period are to:

- Wean yourself from full support on your walking aids to a single stick or crutch as instructed.
- Increase the range of movement (flexion and extension) in your knee so functional tasks start to become easier.
- Walk about 1/4 mile daily (if appropriate)
- Climb and descend a flight of stairs more than once daily.
- Resume housekeeping tasks for example light dusting, washing up, and ironing.
- Continue with home exercise programme increasing your range of movement and strength in your knee.

Weeks 4 - 6

Weeks 4 - 6 will see greater recovery to full independence. Your home exercise programme remains important. Your goals for this time period are to:

- Walk with a single stick or crutch and gradually progress off your walking aids completely unless otherwise instructed.
- Walk about 1/2 mile daily (if appropriate)
- Begin progressing on stairs from one step at a time to normal stair climbing.
- Complete all exercises fully

Weeks 6 - 12

During weeks 6 - 12 you should be able to begin resuming all of your activities. Your goals for this time period are to

- Walk without the aid of a stick or crutch and without a limp.
- You can start to walk on uneven terrain as you feel confident to do so
- Climb and descend stairs in a normal fashion (one foot after another).

- Walk 1/2 mile - 1 mile daily (if appropriate)
- Resumption of all previous activities including dancing, bowling and golf.

9 ADVICE FOR DAILY ACTIVITIES

Getting in and out of bed

- You can lead with either leg
- To get out of bed use your strong leg and your arms to move closer to the edge of the bed and then swing your legs over the side of the bed and sit up.
- Do the reverse for getting into the bed
- You can use your stronger leg or a suitable aid under your operated leg for support
- Push from a seated position when standing up, do not pull or push on walking aids
- Reach back for the bed when you sit down
- If you are having difficulty please speak to one of the therapists for guidance



Sitting down in a chair

- Back up until you can feel the chair with the back of your legs
- Slide your operated leg forward if you are struggling
- Grasp the armrests and bend your knees.
- Lower yourself down gently
- To stand up do the reverse
- Sit with your knee bent and your foot flat on the floor for short periods of time



Getting dressed

Putting on underwear, trousers, socks and shoes can be difficult.

- Sit on the edge of the bed or chair
- Dress the operated leg first and undress it last
- You may need the following if there is no one to help you dress:
 - Sock aid
 - Long handled shoe horn
 - Helping hand (grabber)



Please speak to a member of the therapy team if you have any questions or concerns.

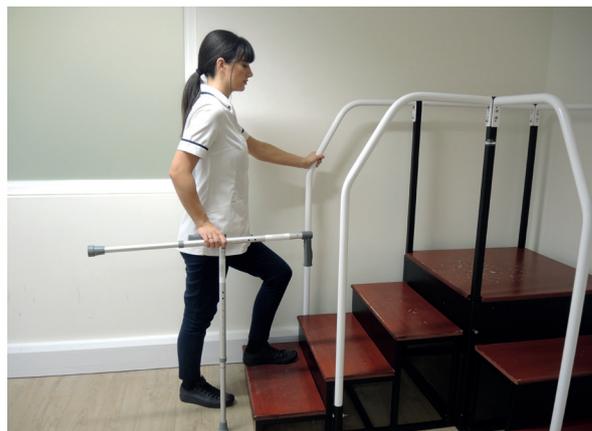
Dressing aids are available to purchase from Horder Healthcare

Stairs

Always use a handrail if there is one.

Going up

Holding the rail with one hand and walking aids in the other, step up with the non-operated leg (good) followed by the operated leg (bad) and then the walking aid.

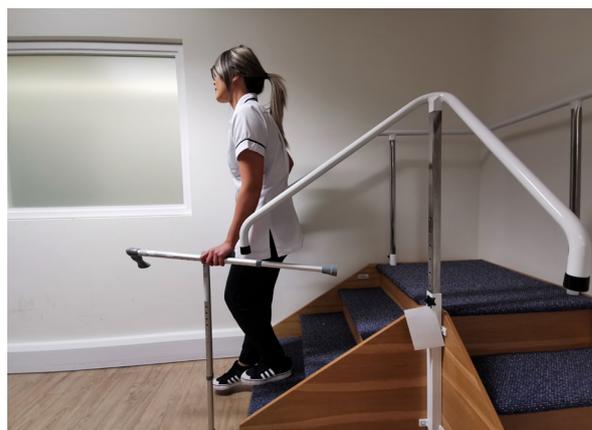


Coming down

Holding the rail with one hand and walking aids in the other, place the walking aid on the step below then the operated (bad) leg; followed by the non-operated leg (good).

You can remember it as "Up with the good, Down with the bad"

If you are by yourself, carry the other stick or crutch as illustrated.



Keep this method up until you feel strong enough to walk upstairs and downstairs normally. Patients often manage this between weeks 4 - 6.

Getting things from a low cupboard

If you need to bend down to the oven, fridge, or low cupboard, you will find it easier to put your operated leg out behind you and bend forwards leaning on the non-operated leg.

Ensure you are leaning on something sturdy to assist you back up into a standing position.



Transfer into the car

- Push the car seat all the way back and recline it slightly if possible.
 - If necessary, put a small cushion or folded towel onto the back of the seat to make the seat level.
 - Back up to the car until you feel it touches the back of your legs.
-
- Reach back for the car seat and lower yourself down. Keep your operated leg straight out in front of you and duck your head so that you do not hit it on the door frame.
 - Slide across towards the driver's seat as far as you possibly can to give yourself more room to get your legs into the car.
-
- Turn towards the dashboard, leaning back as you lift the operated leg into the car.
 - If you are finding car transfers difficult, use a plastic bag underneath your bottom to help you slide. Remember to remove the plastic bag and make yourself comfortable before setting off



10 LOOKING AHEAD

KNEELING

You can try kneeling on a soft surface after about three months once the scar tissue has healed enough. Kneeling may never be completely comfortable but should become easier as the scar tissue hardens. We recommend the use of kneeling pads or cushions for kneeling.

DRIVING

You should not drive for the first six weeks after your surgery. When you feel ready to drive again make sure you can reach and use the pedals without discomfort and 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 take a long trip, stop regularly to get out and stand up and stretch. You may like to check and confirm your insurance cover, but you should not drive until you feel you have full control of the car.

TRAVEL

Immobility (sitting for long periods of more than 4 hours) when travelling by plane, train, car or coach is thought to slightly increase your risk of blood clots. It is advised that you wait 6 weeks before travelling on a short haul flight (4 hours or under) or 3 months for long haul flights (over 4 hours) after knee replacement surgery. During a flight, we recommend that you move around the cabin regularly, complete gentle exercises and drink plenty of water.

When you are a passenger in a car, slide the seat back on it's runners, recline the seat slightly to give yourself maximum leg room for comfort. Try to avoid longer car journeys for the first six weeks. You can get on a bus or train as soon as you feel confident enough to do so - remember the seats are generally fairly low and do not always have arms for you to push up from.

WORK

The time it takes to return to work following a knee replacement varies and depends on you and your recovery and also the type of work you do. If you work in a sedentary job and are able to travel to work safely, you may be able to return to work between 4 - 6 weeks after your operation. For light duty jobs that involve more walking and standing, as a guide you may be able to return to work 6 - 12 weeks after your operation. For more manual jobs, you may be able to return to work between 10 to 12 weeks, when you are capable of safely performing your job requirements.

Please inform staff whilst you are in hospital if you will require a doctor's note for your absence from work.

HOBBIES AND SPORT

A knee replacement may be your ticket to a healthier and more active lifestyle. Once you have recovered, you can return to many activities that were too painful and difficult for you before surgery.

Initially any activities involving kneeling, twisting and abrupt movements should be avoided.

In most cases, you can resume many of your normal activities after about 12 weeks. Please discuss your lifestyle and activities with the therapy team or your consultant as they will be happy to give you more specific advice. Staying active will also help you strengthen your knee and make it more likely to function well for many years.

Here are a few examples of low-impact activities and sports that you should be able to do once you have recovered from your surgery:

1. Walking

Walking is one of the best exercises you can do to build up strength in your knee. It is also a good way to burn calories and benefit your heart. Start with smaller steps and shorter walks as you work your way up to longer distances. Keep track of how long you walk every day so you can gauge your progress. It is important that you avoid limping when you are walking, as this can be detrimental to your recovery.

2. Swimming

Swimming is not a weight-bearing activity, so it is a great way to exercise without putting stress on your artificial knee. Many people with knee replacements can resume swimming within four to six weeks after surgery. You must not go swimming until your wound is completely healed, as this will put you at risk of infection and you must be steady on your feet before you attempt to walk on a poolside.

3. Dancing

Ballroom dancing and gentle modern dancing are great ways to exercise. Dancing is a good way to use leg muscles and engage in light aerobic activity. Avoid twisting and abrupt movements that could put your knee out of alignment. Also avoid high-impact movements such as jumping. You can normally resume gently from 6 weeks.

4. Cycling

Cycling is a good way to regain strength in your knee. Whether you use an actual bicycle or an exercise machine, stay on a flat surface and increase your distance slowly. You can resume cycling when you have enough knee bend and balance. You may need to raise the bike seat initially.

5. Yoga

Gentle stretching is a great way to avoid stiffness, improve your flexibility and boost the overall health. It is important to avoid twisting movements, and it is critical to protect your knees by keeping them aligned with your hips and ankles.

Talk with your yoga instructor before class so they are aware of your limitations. This will help prevent extra strain on your knee. If you feel any knee pain, modify the exercise or consider taking a break. You can normally return to yoga between 6 - 12 weeks.

6. Golf

Golf should be returned to gradually. You can normally return to the driving range at about 6 weeks and begin to build up to a round of golf. You will find it useful to use a buggy initially and someone to help with your bag if required.

The golf course provides a good way to walk and exercise various muscles in both your lower and upper body. Avoid wearing spikes that could get caught in the ground, and make sure you maintain good balance when you hit the ball.

7. Tennis

In most cases, you can return to playing tennis three to six months following your surgery. Avoid running initially and keep your games low-impact.

Doubles tennis requires less movement than singles, so it is a good way to exercise without placing undue stress on your knee.

8. Bowling / bowls

It is generally safe to bowl after knee replacement surgery, but you should consider using a lighter ball to reduce stress on your knee. Stop bowling if you begin to feel any pain in your knees. You can resume bowling or bowls once you are able to walk without any aids.

LENGTH OF RECOVERY

The first 6 weeks is where you make the most amount of recovery, longer term recovery takes about 6 months but some patients have reported noticing changes up to 2 years after their surgery.

Having access to information about knee replacement surgery and a strong support network throughout each stage of your recovery is really important and will help to support you and set expectations for your recovery journey.

11 EXERCISES

Below we have detailed a full rehabilitation programme. You will need to complete different exercises at the different stages of your recovery. Please see the below table for guidance. Everyone recovers at different rates and you should adapt the programme to suit your needs. We have given guidance on how many times to repeat each exercise but you may increase these repetitions as you feel able to.

Phase of recovery	Exercises	Repetitions per day
Before surgery	1 - 5	3 x per day
After surgery (weeks 0-6)		
Bed exercises	6 - 10 11 - 13	Hourly 3 x per day
Chair exercises	14 - 21	3 x per day
Advanced exercises (week 3 onwards)	22 - 32	3 x per day

EXERCISES BEFORE SURGERY

It is important to be as fit as possible before undergoing a total knee replacement. This will make your recovery much faster. The exercises should be started as soon as possible and continued up until your surgery. It is recommended that you do all of these pre surgery exercises 3 times a day on the leg that is due to be operated on. You may find the exercises beneficial for your other leg too. It is not harmful for you to do more repetitions if you feel able to do so.

Also, remember that you need to strengthen your entire body, not just your leg. It is very important for you to strengthen your arms. You will be relying on your arms to help you get in and out of bed, chairs and to walk with aids.

If you find these exercises difficult, build up to the suggested number GRADUALLY. Avoid any exercise that is too painful.

If you are still able to do other forms of exercise such as walking or swimming, please continue to do so.

Exercise No. 1

Knee Flexion (in sitting)

Bend your knee as far as possible by sliding your foot back. Repeat 10 times.



Exercise No. 2

Knee Extension (in sitting)

Pull your toes up; lift your foot up off the floor straightening your knee as much as possible. Hold for 5 seconds and relax. Repeat 10 times.



Exercise No. 3

Sit to Stand

Practice sitting to standing from the chair. Try pushing up through both legs equally. Use the arms of the chair if needed. Repeat 10 times.



Exercise No. 4

Straight leg raise

In sitting, pull your toes up towards you and straighten your knee. Then try and lift your leg up so your thigh comes off the chair. Repeat 10 times.



Exercise No. 5

Squats

Standing with your feet hip width apart. Keeping your back straight and heels on the floor, bend your knees as far as you can and straighten back up again. Repeat 10 times.



EXERCISES AFTER SURGERY

As soon as you wake up from surgery and your sensation has returned, it is important that you complete all the bed exercises below (6 - 10 hourly and 11 - 13 3 x per day). This is especially important if you are not mobile as these exercises help to prevent post-operative complications. You should continue to complete these exercises throughout the course of your hospital stay and during the initial stages of your recovery.

BED EXERCISES

Exercise No. 6

Deep Breathing Exercises

With your hand on your upper abdomen, take a deep breath in through your nose and exhale slowly through your mouth. You should feel your abdomen rise against your hand. Repeat 3-5 times.



Exercise No. 7

Ankle Pumps

Paddle your feet up and down. Repeat approximately 20 times.



Exercise No. 8

Static Quads

Pull your toes up and push your knee down into the bed tightening the thigh muscle. Hold for 5 seconds then relax. Repeat 10 times.



Exercise No. 9

Buttock Squeezes

Squeeze buttocks together and then relax. Try not to hold your breath. Repeat 10 times



Exercise No. 10

Massage

Placing your hands below your operated knee, massage upwards in a circular motion. This can be repeated as often as you like.



Exercise No. 11

Knee Flexion (in lying)

On a smooth surface (such as a plastic bag on top of your bed sheet), bend your operated knee towards you. You can use a towel to assist. Repeat 10 times.



Exercise No. 12

Inner Range Quads

With a roll (such as a large water bottle wrapped in a towel) underneath the crease of your knee, point your toes to the ceiling and straighten your knee by lifting your heel up from the bed. Hold for 5 seconds then relax. Repeat 10 times. Ensure that the back of your knee stays in contact with the roll throughout the exercise



Exercise No. 13

Straight Leg Raise

Keeping your leg straight, raise your leg off the bed as high as you can. Hold for 5 seconds then relax. Don't worry if you cannot do this exercise at first, you will get there with time. But keep practicing. Repeat 5 times.



CHAIR BASED EXERCISES

Following a total knee replacement, we advise you to complete the chair exercises 3 times a day for at least 6 weeks but recommend you continue with their completion if you still find them of benefit. A member of the therapy team will demonstrate and if appropriate complete these exercises with you whilst in hospital.

Exercise No. 14

Knee Flexion (in sitting)

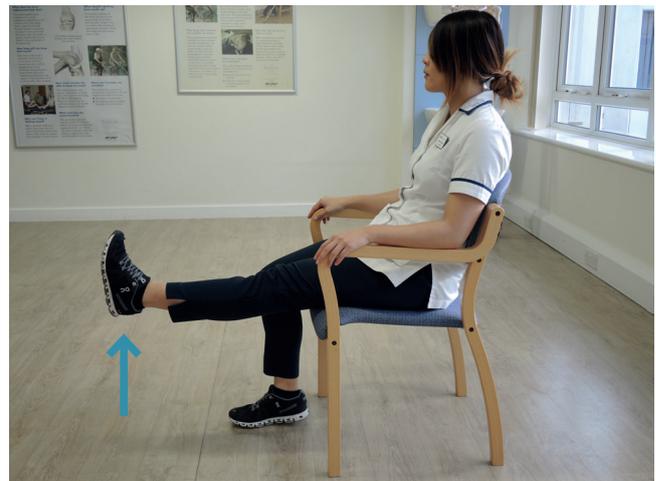
Bend your operated knee as far as possible by sliding your foot back. Repeat 10 times.



Exercise No. 15

Knee Extension (in sitting)

Pull your toes up; lift your foot up off the floor straightening your operated knee as much as possible. Hold for 5 seconds and relax. Repeat 10 times as able.



Exercise No. 16

Hamstring Stretch

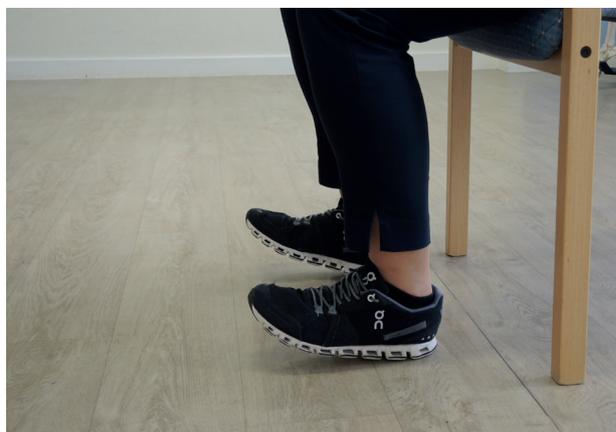
In sitting, straighten your operated leg as much as you can. Pull your toes up and lean your body forwards. You should feel a stretch at the back of your leg. Hold this position for 15-30 seconds. Repeat 3 times.



Exercise No. 17

Heel To Toe

Start with your foot flat on the floor then rise up through your toes and then back onto the heel. Repeat 10 times.



Exercise No. 18

Heel Digs

In sitting, dig your heels back behind you. Hold this for 5 seconds and then relax. Try to bring your feet further back each time. Repeat 10 times.



Exercise No. 19

Sit To Stand

Using both arms of the chair initially and trying to use both legs equally, push up into standing. Once standing, try and distribute equal weight through both your legs. To sit down, step your feet back until you can feel the chair behind your legs. Reach back for the arms of the chair and gently lower yourself down without bringing your operated leg forwards. Repeat 5 times.



Exercise No. 20

**Knee Flexion with Hold
(in sitting)**

Sitting in the chair, bending both knees as much as possible, slide your bottom forward in the chair to increase the knee bend. Hold for 30 seconds and repeat 5 times.



Exercise No. 21

Passive Knee Extension (in sitting)

Whilst sitting in a chair, rest your operated leg on a foot stool or chair. Relax your foot and leg as much as possible. Aim to maintain this position for 2-10 minutes.



ADVANCED EXERCISES

These exercises can be completed from approximately 3 weeks post op, though that will depend on your rate of your recovery and how you are feeling. Start gently with these exercises and progress the exercises as you feel you are able to.

Exercise No. 22

Squats

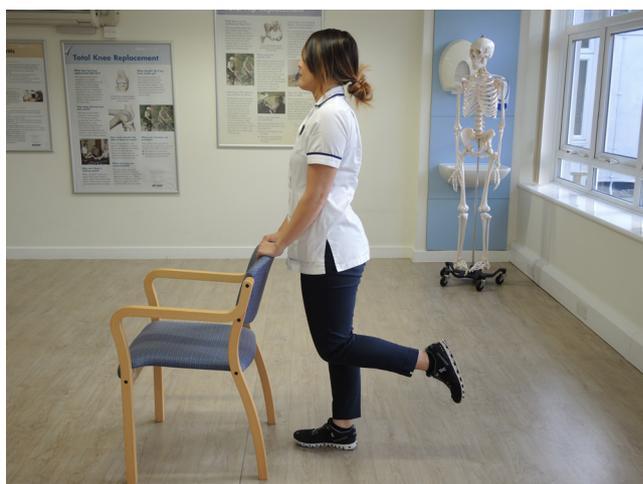
Stand with your feet hip width apart. Keeping your back straight and heels on the floor, bend your knees as far as you can and straighten back up again. You may want to hold onto a stable surface initially. Repeat 10 times.



Exercise No. 23

Hamstring Curls

In standing, bend the knee behind you lifting your foot up as far as you can off the floor. Hold for 5 seconds then relax. You may wish to hold onto a stable surface initially. Repeat 10 times.



Exercise No. 24

Heel Dips

Standing with your toes on the edge of the step, lower your heels down creating a stretch in the calf muscle. Hold for 15 – 30 seconds. Repeat 3 times.



Exercise No. 25

Step Up & Down

Step up onto the step leading with the operated leg. Step down backwards with the non-operated leg first. Return to standing position. Repeat 5 times.



Exercise No. 26

Single Leg Stance

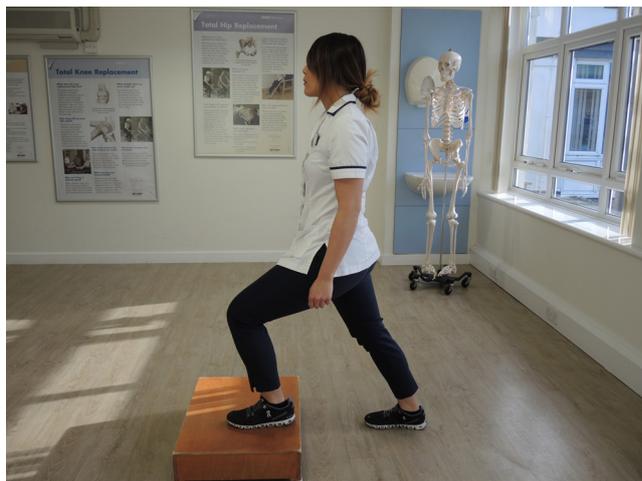
Try and stand on your operated leg only. Try to keep your operated leg, pelvis and back as straight as possible. Hold for 30 seconds. You may want to hold onto a stable surface initially. Repeat 5 times



Exercise No. 27

Lunge on a Step

Place your operated leg onto a step. Keeping your back leg straight, lean forwards onto your operated leg to increase your knee bend. You may want to hold onto a stable surface to begin with. Hold for 15-30 seconds and then repeat 5 times.



Exercise No. 28

Gastroc Stretch

Place your non-operated leg onto a step. Keeping your operated leg straight behind you, lean forwards onto your non-operated leg to stretch the back of your operated leg. You may want to hold onto a stable surface to begin with. Hold for 15 - 30 seconds and then repeat 5 times.



Exercise No. 29

Assisted Knee Flexion (Prone Lying)

If able, lie on your front. Hook your non-operated leg over your operated leg. Bend both knees towards your bottom. This exercise aims to use your non-operated leg to assist your operated leg to bend. Hold for 15 - 30 seconds and then repeat 5 times.



Exercise No. 30

Standing With Your Feet Together

Stand with your feet together. Try to maintain a good posture and your balance. Aim to hold this position for up to a minute. You may want to hold onto a stable surface initially, but reduce the amount of support as your balance improves.



Exercise No. 31

Tandem

Place one foot in front of the other. Try to maintain a good posture and your balance. Aim to hold this position for up to a minute. You may want to hold onto a stable surface initially, but reduce the amount of support as your balance improves.



Exercise No. 32

Heel To Toe Walking

Try to step one foot in front of the other. Take 10 steps forward then 10 steps backwards. Try to maintain a good posture and your balance. You may want to hold onto a stable surface initially, but reduce the amount of support as your balance improves.



12 FREQUENTLY ASKED QUESTIONS

Why is my leg still swollen?

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 to reduce the swelling?

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 (those patients who have been told to limit their weight-bearing cannot do this). Have a rest on the bed after lunch for 1 hour. Cushions under the foot of the mattress or blocks under the legs at the bottom of the bed will mean that gravity will help drainage. When sitting, you can elevate your legs on a stool to help reduce the swelling. Remember to use ice regularly to help reduce the swelling.

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 type of warmth to that of an infection.

Signs of Infection

- Increased swelling, redness and warmth at wound site
- Change in colour, amount, odour of fluid discharge
- Increased pain in knee
- A high temperature

How long should I expect my joint to be painful?

You will experience pain and discomfort especially for the first few days. It is likely that you will need pain relief over the first few weeks. Reduce your pain relief gradually over a few weeks rather than stopping it all together even if you feel the pain has gone as the pain may return if you stop your pain relief too soon. You may need to continue pain relief at night time for a little longer to help you sleep more comfortably.

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.

Is bruising normal?

Bruising often occurs after a knee replacement and normally appears once you have been discharged from hospital. Bruising normally occurs around the knee but can, in some people, track all the way up and down the leg. Bruising can cause tenderness but should settle down after the first few weeks.

Is it normal for my wound to bleed?

Yes, your wound may bleed and you may see this through the dressing. A small amount is normal but if the dressing is full, please contact The Horder Centre or your GP surgery.

You may also notice that some yellow fluid can appear on your dressing. Again, a small amount is normal but if the dressing is full, please contact The Horder Centre or your GP surgery.

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 3 to 4 steps before it loosens up. This is because those healing tissues are still swollen and are slower to respond than normal tissue.

What are the signs of a DVT?

Deep Vein Thrombosis (DVT) is a blood clot that can form in the veins of your legs. If untreated, the blood clot can travel to your lungs causing a Pulmonary Embolism (PE).

The signs of a DVT are:

- Pain, swelling and tenderness in one of your calves. On rare occasions it can be both calves.
- A heavy ache in your calf
- Warm skin and redness in your calf.
- Breathlessness, chest pain and feeling generally unwell

If you notice these symptoms please contact the ward immediately

Is it normal to have disturbed nights?

Yes, very few people are sleeping through the night for six weeks or more 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. However, you are able to sleep on your side when you feel able to.

I have a numb patch – is this okay?

Numbness around the wound site is due to small superficial nerves being disrupted during surgery. The area usually reduces, but there may be a permanent small area of numbness or altered sensation.

How long do knee replacements last?

While knee replacements are designed to last a long time, they will not last forever.

The good news is that studies show that common types of knee replacements can last more than 20 years. How long your knee replacement will last will depend on how active you are, how much you weigh, and your overall health. While some patients may have knee replacements that last several decades, other patients may require a repeat knee replacement.

Why do my legs feel a different length following surgery?

There are many reasons that your legs may feel different lengths after surgery - swelling, range of movement, pre-existing knee alignment. This sensation can be fairly normal in the first few weeks of recovery but by six weeks should have resolved. If you are still concerned at this stage, please speak to your consultant at your follow up appointment.

Why does my joint click?

This is 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.

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 knee. Use the stick in the opposite hand to your operated knee.

How far should I walk?

This varies on your fitness and what your home situation is. You should feel tired but 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?

Your new knee may set off metal detectors so be sure to tell the security officer that you have a knee replacement. Usually a hand held machine will be passed over the knee.

Is it normal to experience tiredness?

You will feel more tired than normal doing your usual daily activities and it may come upon you suddenly as your body is using energy to heal itself. You will have had some blood loss during your operation and it can take a few weeks for the blood levels in your body to return to normal. Try to eat a healthy well-balanced diet and follow the advice in this book about rest periods.

Can I kneel?

Not for at least 6 weeks but ideally longer. Kneeling on a replaced knee may well be uncomfortable forever and always. Some patients can tolerate it with good kneeling pads or cushions for short stints but it may be something you try to avoid.

When you start kneeling, kneel onto the operated side so then you have your non-operated side to push up with. It is a good idea to have something to lean on or push up on.

Constipation?

It is normal not have had a bowel movement within the first 2 – 3 days of surgery. After the first 2 – 3 days, if you have not had a bowel movement you may need to start taking some laxatives. Also, it is important to have plenty of fibre in your diet, along with fresh fruit and vegetables, as well as drinking plenty of water.

13 QUESTIONS AND COMMENTS

Should you have a query please contact:

The Horder Centre, St John's Road, Crowborough,
East Sussex, TN6 1XP
Telephone: **01892 665577**

Making a complaint

If you need to raise a specific concern or complaint please either contact us on the main switchboard number, access our 'listening to you' leaflet via our website or you can email us at **complaintsadmin@horder.co.uk**

Your complaint will then be passed on to the complaints department.

Useful Information

National Joint Registry (NJR)
www.njrcentre.org.uk

National Institute for Health and Clinical Excellence (NICE)
www.niceguidance.org.uk

British Orthopaedic Association
www.boa.ac.uk

Arthritis Research
www.arthritisresearchuk.org

NHS Choices
www.nhs.uk

The Private Healthcare Information Network
www.phin.org.uk

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