Patient information

Enhanced Recovery Programme for Total Knee Replacement

Trauma and Orthopaedics Directorate

PIF 716 V4
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This booklet has been written by the Orthopaedic and Therapies staff at The Royal Liverpool and Broadgreen University Hospitals NHS Trust in partnership with the Joint Replacement Network.

It has been designed to guide you and your family and friends through the process of having a knee replacement and your rehabilitation afterwards.

Remember, each person is an individual and particular instructions and details may vary from one person to another. Your rehabilitation will be aimed at your individual needs.
The Enhanced Recovery Programme

The aim of the enhanced recovery programme is to promote health and a ‘return to feeling well’ as quickly as possible after surgery. We have implemented elements of the ‘Enhanced Recovery Programme’ for patients having hip and knee replacement surgery.

There is evidence and research available on Enhanced Recovery after surgery. The evidence states that recovery after surgery is more comfortable, easier and happens quicker if certain elements of care are introduced.

These elements are:

- Good pre-operative advice and information.
- Good pain control and nausea control if appropriate.
- Early feeding following surgery.
- Early mobilisation after surgery.

These elements speed recovery and reduce the possibility of complications. We ask patients to work in partnership with the orthopaedic team to achieve this aim.

About your knee replacement

What is a knee replacement?

A knee replacement is an operation for serious arthritis of the knee. The knee has three parts: the thigh bone (the femur), shin bone (tibia) and the kneecap at the front of the knee (called the patella). This type of joint is called a hinge joint. Where the bones meet, they are covered in a hard slippery material called cartilage that helps them slide over each other easily. The whole joint is held together with tough bands of tissue called ligaments. Muscles provide the power to move the joint and together with the ligaments, give stability to the knee.

Arthritis damages the surfaces where the three parts of your knee slide over each other. During a knee replacement operation, the surgeon removes the rough damaged surfaces and replaces them with new smoother surfaces made from metal and plastic.

There are three types of knee replacement. A total knee replacement resurfaces the whole knee. A partial knee replacement (called uni-compartmental knee replacement) only resurfaces the inner or outer part of the knee. Partial knee replacements only work for people with arthritis only in one half of the knee and so are used less frequently.
A third type of knee joint replacement resurfaces the area that the patella (kneecap) has contact with and only works for people with arthritis with patello-femoral arthritis.

**How long will a knee replacement last?**

Joint implant manufacturers, orthopaedic surgeons and scientists continually strive to improve the durability of these devices. Current scientific advances in metallurgy have resulted in the use of colbalt chrome alloys and zirconium oxide, which are used for the femoral component. The tibial component is made of ultra-high molecular weight polyethylene, which is very durable, but will eventually wear out. Orthopaedic companies have been working hard to find better materials that will not wear out for a long time. Studies of modern knee arthroplasty report clinical survival of up to 96% of total knee implants at 10 to 15 years.

Nowadays it is possible to have a second and even a third replacement knee. However, high impact activities such as running, jumping, jogging and contact sports are not advisable. This is because these activities will increase wear and possibly cause early loosening of the artificial knee joint implants, resulting in the need for further surgery.

**Benefits and risks of having a knee replacement**

**What are the benefits of having a knee replacement?**

The aim of the operation is to replace or resurface your painful arthritic knee joint with an artificial joint (called prosthesis). Once the tissue around your new joint has completely healed you should experience one or more of the following benefits:

- Reduced knee pain.
- Correction of angular leg deformity.
- Increased movement and mobility.
- Increased leg strength.
- Improved quality of life, and be able to complete the activities you normally undertake on a daily basis.

Most people find that they are able to walk with little or no pain for 30 minutes or more. Carrying out household jobs, shopping and using public transport should all become easier. It should be possible, if you are generally fit, to walk up to five miles, drive a car and take general exercise such as swimming, cycling and playing golf.

**What are the risks of having a knee replacement?**

With all major operations there are some risks involved. There is a risk that you could be worse off if you suffer a significant complication such as cardiovascular problems (heart attack, stroke, thrombosis), infection, nerve and artery damage or a stiff painful artificial knee.

There is a small risk of about 1 in 200 (0.5%) of dying after having a knee replacement. Most patients (90%) report a good result at getting rid of pain and improving function after knee replacement. It is not a normal knee and some patients are disappointed that they can’t bend it as much as they would like. 5% of patients say they are worse following the operation largely due to one of the above complications of a major operation. Your surgeon will be very happy to discuss the risk and benefits with you as the risks vary between individual patients.
This hospital employs a number of modern techniques to keep operative complications to a minimum. If you wish to know more about them your surgeon will be happy to explain. Despite using such techniques however, complications are minor and can be successfully treated. They are listed below and are accompanied by percentage figures, which indicate the number of patients per 200 who would be expected to develop the problem. Some patients have concerns about metal allergies. If you think you may be sensitive to nickel please discuss with your surgeon.

Complications which may arise after the operation

It is essential that you carefully read this list. When you sign your operation consent form it means that you are aware of the possible complications and the consequences of them.

1. Deep vein thrombosis

Blood clots form in the veins of the legs. Minor clots of little importance can form in up to 50% of patients. In a smaller percentage of patients (5%), the clots cause leg pain and swelling. The problem is usually treated with blood-thinning medicines such as heparin or warfarin. The pain and swelling usually fully recovers, but 1% of patients are left with persistent leg swelling and discomfort.

2. Pulmonary Embolus

Some leg clots are large and can pass from the legs to the lungs. This is called a pulmonary embolus and can result in sudden death. However, most patients who develop this condition while in hospital do survive after emergency treatment. This is the condition widely reported in the press and TV as occurring after long aeroplane journeys. Less than 1% of patients develop a pulmonary embolus. However, approximately four patients in 1000 die of pulmonary embolus.

3. Infection

Infections after knee replacements are of two types. The first is the so-called superficial infection, which occurs in about 2% of cases. The wound becomes painful and inflamed after surgery but it is usually easily treated with antibiotics. Occasionally, an operation to clear the infection is needed.

Rarely in about 1 in 50 patients (0.6%) a deep infection can develop. This may result in further surgery, taking out the new knee to help clear the infection. A second joint replacement is then required - known as a revision procedure. Revision surgery is more difficult than the original operation and has a higher complication rate. In extremely rare cases where the infection cannot be cured the knee replacement has to be removed and the bones fused together to make a stiff limb. Even more rarely the leg may have to be amputated above the knee.

Deep infections can occur rarely, when bacteria infect the joint replacement from the patient’s own blood stream. This can occur after procedures such as passing a catheter into the bladder when a patient has difficulty passing urine after the operation. Infection can also occur after dental abscesses, chest infections or skin infections.

Overall the deep infection rate resulting in failure of the knee replacement is approximately 2%. It should be noted that both types of wound infection are more common in patients who are overweight or obese and in those with diabetes and general skin conditions such as psoriasis.

Avoid shaving your leg or groin area as any cuts or scratches may result in your operation being cancelled to avoid the risk of infection. Take care not to get any grazes or scratches on your leg. Most bacteria that cause infections are those which live on normal skin. Hospital super bugs such as MRSA very rarely infect knee replacements.
4. Nerve and artery damage

The two main nerves supplying the leg (the femoral and sciatic) can be damaged, resulting in weakness and loss of feeling in the leg. Damage to the main artery to the leg requires emergency surgery at the time of the knee replacement, involving the vascular surgery team. Damage to nerves and arteries are fortunately very rare and occur in well under 1% of cases.

5. Limping

Limping after surgery is common which usually settles after six weeks if the patient works hard to rehabilitate.

6. Death

Occurs in one in every 400 of these operations due to pulmonary embolus (PE) or anaesthetic complications. If you are worried about any of these risks, please speak to your consultant or a member of their team.

7. Residual stiffness

Unfortunately a small number of patients (about 1.5%) do not regain a good functional range of movement. This may cause difficulty with some activities, for example going up and down stairs and cycling. It is very important to follow the exercise programme given by your physiotherapists starting from the day of your operation to prevent stiffness. If you do not gain a right angle (90º) then you may be offered a manipulation to improve the movement in your joint. Most patients experience some difficulty in kneeling after a knee joint replacement. This is due to the operation leaving a scar at the front of the knee.

Are there any alternative treatments available?

The only alternative to surgery would be to continue to manage your symptoms with appropriate analgesia (pain relief) and advice from therapy staff. In some circumstances wearing a knee brace/support may relieve some symptoms.

What would happen if I had no treatment?

Your mobility would not improve and possibly worsen.

About your anaesthetic

You will be having either a spinal anaesthetic (in combination with sedation) or a general anaesthetic (GA) for the operation.

For more information please ask for a copy of the leaflet ‘You and your anaesthetic’ (PIF344) or ‘Anaesthetic choices for hip and knee replacement’ (PIF 762)

You will have the opportunity to discuss anaesthetic options and risks with your anaesthetist before your surgery.
Getting ready for admission

What can I do to prepare for my knee replacement?

1. Be positive about your operation and its success

To the average person the words total knee replacement may sound as if their active life and all sports are to end. This is definitely not the case. Once a knee replacement is performed you should be able to return to most normal activities and pastimes including walking, dancing and golf.

One of the most important things for the average patient to remember about having knee surgery is that you will be making a lifetime commitment to physical fitness. On discharge from the ward you will be given an appointment for outpatient physiotherapy with the aims of helping you continue to regain a good range of movement, increase muscle strength and regain normal function.

For a total recovery, after discharge from the outpatient physiotherapy, the typical patient will need to continue home based physiotherapy and rehabilitation for 12 months after surgery. Improvement in the knee replacement continues for over a year following surgery. Working as a team, you and your family must take on a positive attitude toward the success of your surgery. Together, you will gain a clear understanding of the common goals and expectations of the procedure.

2. Eating

If you are overweight you will find it very helpful to lose some weight before the operation. In occasional cases this makes the operation unnecessary. Any weight reduction will make the operation improve your mobility after the operation. If you would like some help with losing weight, please ask the doctor in clinic or ask your own family doctor (GP) to refer you to a dietitian.

3. Smoking

You will be having either spinal anaesthetic (in combination with sedation) or a general anaesthetic (GA) for the operation. Smokers are very much more at risk of developing breathing problems such as chest infections after an operation. You are advised not to smoke for a week before the operation. The hospital has a no smoking policy - why not take advantage of this and make it your time to give up? You can contact ‘Fag Ends’ on 0800 1952131 for support or ask for patient information leaflet PIF1516 - Stop smoking before your operation.

4. Alcohol

There is no reason why social drinking should be stopped before surgery. If you are a woman and drink more than 14 units of alcohol per week or a man and drink more than 21 units per week, problems could arise when it is suddenly stopped on admission to hospital. Please talk with your GP and get some advice on how to safely reduce your alcohol intake before admission to hospital. 1 unit = 1 pub measure of spirit or wine or half a pint of beer.

5. Health

If we were to operate on you when you had an infection, e.g. an ulcer or a bad tooth, the infection could enter the joint and cause problems. It is very important that you have such infections treated straight away - make an appointment to see your GP or dentist. Any wound or scratch on your leg could cause your operation to be cancelled, so please take care while you are waiting for your operation.
6. Exercise

You will be recommended a low-impact exercise plan that will strengthen your knee without creating further damage.

7. Things to consider and/or arrange before your admission

Planning for your needs for after the operation will make life a lot easier for you on your return home. If you live alone, you may find it helpful to think a little about those items you use a lot during the day and where they are kept e.g. clothes/crockery/tea/coffee etc. If they are in low cupboards/drawers it may be a good idea to make them easier to get to. If this is difficult ask family or friends to help you. Do not forget to stop your milk and paper deliveries. At first you will not be able to carry out many of your everyday domestic tasks e.g. shopping, housework, laundry. It is also not advisable to carry items when using walking aids. It is, therefore, very important that you think about and organise any help that you need from family and friends.

Ice is a natural anaesthetic that relieves pain. You may find it helpful to have a pack of frozen peas/crushed ice available in your freezer before your admission to hospital (do not eat the peas afterwards).

If you are worried about how you will manage at home following your operation, inform the therapist during your pre-admission assessment or tell the ward staff on your admission. If it is identified that you will need support on discharge to return home safely a referral will be made to the hospital’s social work department. Working within the eligibility criteria, an assessment of your needs will be completed by a case manager or social worker. Support or care will be based on your needs. You may be expected to pay for your care in the community depending upon your financial situation.

Getting ready for your operation

Pre-operative assessment

Before your admission for your operation you will attend the preoperative assessment clinic at Broadgreen Hospital to ensure that you are fit for surgery and anaesthetic. At the clinic a qualified nurse will check for your general medical fitness, measure your blood pressure, pulse, weight and height. In addition you may be sent for blood tests, ECG (heart tracing) and a specimen of urine will be collected to ensure that you do not have a urinary infection. Up to date X-rays of your knee and chest will also be ordered if necessary.

If, following the assessment anything is found that would prevent you from having surgery, the nurse who carried out your assessment will contact you and advise you on the next course of action and a referral letter will be faxed to your GP.

If for any reason you are unable to attend for your pre-operative assessment appointment, you can call the office on the number provided at the end of this booklet. Failure to do so may result in your operation being cancelled.

The NHS is asking patients about their health and quality of life before surgery and about their health and the effectiveness of the operation afterwards. All patients having a knee replacement are invited to complete PROMS questionnaires (Patient reported Outcome Measures) and the first questionnaire will be given to you at the Pre-operative assessment clinic.

By completing this short questionnaire you are consenting to be involved in the PROMS programme and your details will be stored in the Health and Social Care Information Centre. A second questionnaire will be sent to you directly six months after surgery.
Pre-admission Therapy Clinic

You will be sent an appointment to attend a pre-admission therapy clinic. When you attend for your pre-admission assessment please bring your completed National Joint Registry (NJR) consent form and completed furniture measurement form.

The therapists will carry out an initial assessment, which will last approximately one hour. This will include a physical assessment of your knee and advice with regards to your postoperative rehabilitation and exercises. You may be asked to complete questionnaires and evaluation forms.

These forms help us document your health and well-being before your surgery. You may be asked to repeat these after your surgery. The therapist will offer advice/education in relation to your individual needs.

They will ask you about your home environment, and any support you may have. They may arrange for equipment to be delivered to your home before your admission. They will also answer any other questions relating to how you will manage after your operation. Therapy staff will show you how to use crutches/other walking aids as individually assessed and how to safely go up and down stairs following your operation.

All other assessments will be carried out on the ward after your operation. The average length of stay in hospital after a knee replacement is usually three nights.

If for any reason you are unable to attend for your pre-admission therapy clinic appointment please contact the therapy department on the number provided on the appointment letter.

What do I need to bring into hospital with me?

It is helpful to pack your bag before the day you are admitted. There is very little storage space available and staff need to move freely around your bed. Please keep your personal possessions to the minimum.

You should bring with you:

- Day clothing - Men; tops and shorts, Women; tops and elasticated skirts or shorts.
- Nightclothes and a loose fitting dressing gown.
- Underwear.
- Supportive flat slippers and shoes.
- Soap, flannels/sponge, make up and hand mirror.
- Shaving equipment - please bring an adapter if electric razor.
- Comb or hairbrush.
- Toothpaste and toothbrush or denture tablets and pot.
- Towels, large and small.
- Fruit juice or mineral water.
• Any walking or dressing aids (don’t forget the crutches which you may have been given in pre-admission therapy clinic).

• All medication you are taking including inhalers and anything bought from a chemist or health food shops.

Please leave all cash and valuables at home. If you need to bring any valuables into hospital, these can be sent to General Office for safe keeping. General Office is open between 08.30-4.30 Monday to Friday. If you are discharged outside these times, we cannot return your property until General Office is open.

The Trust does not accept responsibility for any valuables.

On admission to hospital

Shower

Patients should shower at home before admission, which is usually on the day of surgery. On the day you are admitted (usually on the day of surgery) you will be seen by the various members of the team who will be caring for you before surgery, during the operation and afterwards.

Nursing staff

On admission you will be introduced to the nurse who will be looking after you. She or he will check that there has been no changes in your circumstances since your pre-admission clinic visit, and discuss with you the support you may need after discharge home. The nursing staff will discuss any fears or concerns you may have about any aspect of your care.

Surgeon

A member of the team who will be performing the surgery will see you. He or she will examine you and arrange for any further blood tests, X-rays etc. to be done to ensure that you are fit for the operation. If you require any medical treatment to get you fit for your surgery this will be arranged. Consent for the operation should already have been taken in clinic. However, if for some reason this was not done you will be consented on the morning of your surgery. A member of the surgical team will mark your leg for the operation.

Anaesthetist

He or she will see you on the ward before surgery to discuss with you the type of anaesthetic and also the types of pain relief available, after your operation. We aim to keep you comfortable at all times.

Preparing to go to the operating theatre

Before your operation, you may be asked to have a shower and then put on a theatre gown and disposable underwear. You will be asked to remove jewellery - plain rings can be worn but they will be taped. False nails and nail polish will also need to be removed. If you are on regular medication you will have been informed in your pre-operative assessment what you need to take on the day of your surgery.

A bracelet with your personal details will be attached to your wrist. When the surgeon is ready, a porter will walk you to theatre. If you are unable to walk a wheelchair will be provided. Your dentures, glasses or hearing aids can stay with you on your journey to the operating theatre.
When you arrive in theatre, a theatre nurse will check your details with you and you will be taken into the anaesthetic room.

**The operation**

The operation is performed in a very special ultra clean operating theatre to reduce the chance of infection getting into your new joint. Metal clips are used to fasten the wound and bandages applied around the knee.

The operation itself takes between one to two hours. After this, you may spend at least an hour in a recovery area until the early effects of the anaesthetic wear off and it is safe for you to return to the ward. You should expect to be away from the ward for at least three hours.

**Recovery**

When you wake up in the recovery area you will have an oxygen mask on your face, a drip in your arm and bandages around your knee. Whilst in recovery you will also have an X-ray of your new joint. A nurse will check your pulse, blood pressure and breathing rate regularly. The nursing staff will also advise when you can start taking sips of water.

Anaesthetics can make some people feel sick. If you feel sick we advise you not to drink until this feeling has passed. The nursing staff may offer a tablet or injection to help this feeling go away. After you have recovered from the anaesthetic a nurse will escort you back to the ward.

**Back on the ward**

**Pain management**

We aim to keep you comfortable at all times. At first, painkillers will usually be given through a drip. You may feel a little nauseous as a side effect of the painkiller. Please let us know if you are and we shall arrange to give you something to help. After 24 hours you will then be given tablets sufficient for pain relief. Please remember it is important that you are comfortable enough to relax, sleep and move freely. Nursing staff will offer you painkillers regularly but please tell them if you are uncomfortable.

The use of painkillers will help you to tolerate your postoperative exercises and help you to be able to walk around after your operation. We are constantly reviewing our pain relief procedures and therefore this may be different at the time of your admission. However, we will always strive to ensure your pain is controlled and you are comfortable.

**Intravenous infusion (drips)**

Drugs and fluids are given by this route. Occasionally a blood transfusion may be in progress. This may restrict the movement of your arm. The drip will be removed after 24 hours. The drip may feel uncomfortable at times but it should not be painful. If it is painful please tell your nurse.

**Wound**

Your wound will be covered with a dressing which will not be removed unless there is a clear indication for this. Reducing the amount of times the dressings are changed lowers the risk of infection. Clips are usually removed 12 days after surgery. This is not a painful procedure.
Before you are discharged home from hospital you will be given details of arrangements for district nurses who will look after your wound until it has healed. Following a knee replacement, it is really important that any signs of infection in your wound are treated early and effectively.

For this reason, you will be given a leaflet and details when you are discharged of how to access the ‘Post Discharge Wound Assessment Clinic’ for advice if you are concerned in any way about your wound. You may be asked to attend Broadgreen hospital for a nurse to assess your wound in clinic. See end of booklet for contact details.

**Drinking and eating**

You should be able to drink and eat as you feel able but it is advisable to take only small drinks and light meals at first. Your family will be able to visit on the evening of your recovery but ask them to phone the ward first.

**Prevention of blood clots**

You will be given medication by a small daily injection to reduce the chance of blood clots forming. The injections will continue after discharge from the ward and you or your carers will be shown how to administer this. You may be given stockings to wear to help the blood flow at a good rate. Deep breathing and circulatory exercises should be started as soon as possible to prevent complications such as blood clots and chest infection.

**Deep breathing exercises**

These are important when you are resting; these exercises keep air flowing to all parts of your lungs reducing the risk of chest infection. Lying with your upper body supported and legs out straight in front of you take a deep breath in through your nose, concentrating on getting the air to the bottom of your lungs - you should feel your lower ribs moving outwards - then breathe out through your mouth. Do this two to three times every 30 minutes.

**Circulatory exercises**

These help keep the blood flowing at a good rate through your legs, which reduces the risk of a blood clot forming in the vein. They are especially important in the first few days after your operation or any time when you are resting. Keeping legs straight, pull toes and foot towards you and then point them away. Do this fairly rapidly - at least ten times every 15 minutes.

**The days after your operation**

**Eating and drinking**

The day after your operation you can start eating and drinking normally. You choose meals from the hospital menu. A member of staff will help you to select from the menu. Patients who require kosher or other special diets should inform nursing staff.

**Toileting**

For the first few hours after your operation you will be restricted to your bed, you will need to use bedpans/urinals. Please do not be afraid or embarrassed by this. Anyone else would be in the same position as you find yourself, as would the staff that care for you. Staff will tell you when you may start to use the commode/toilet.
There are few more unpleasant experiences than constipation. Due to your reduced activity you are very much at risk of constipation over the next 12 weeks. The best cure, as ever, is prevention.

You can help yourself to prevent problems developing:

- Drink six glasses of fluid each day in addition to hot drinks offered. This will provide you with 2.5 litres per day. If this is not suitable for you, because of other medical conditions, staff will give you instructions about one more suitable to you.
- Take plenty of fluid, vegetables and high fibre cereals in your food.
- Fibre in your diet attracts water into the bowel and will make your stool easier to pass.
- If you feel uncomfortable or if you go more than two days without having your bowels moved, let the nursing staff know and they will arrange, with the doctor, to have a stool softener or laxatives prescribed for you.

X-rays/blood tests etc.

If a routine X-ray was not taken in Recovery it will be taken within a day or so after the operation. Various check blood tests may also be carried out.

Nurse

Throughout your stay in hospital the nurse will:

- Carry out routine observations.
- Monitor pain relief and medication.
- Discuss your transport arrangements for getting home.

On your day of discharge the nurse will check you have the following:

- Outpatient clinic appointment to see your consultant.
- Medication to take home if needed.
- Medical certificate (fit note) if needed.

Physiotherapy and Exercises

Physiotherapist

On the day of your operation or on the following morning the physiotherapist will visit you to remind you about your breathing, circulation and strengthening exercises to help you to re-gain mobility in your knee.

The exercises are explained below. If you can practice these exercises before you come in for your surgery it will aid your recovery post-operatively.

The therapy team will teach you the best way to get out of bed and will also help you to start walking. The first time you walk you will probably be on a walking frame and most patients quickly progress onto their crutches.
Ice

It is usual for you to have ice on your knee following your operation. This is to help reduce your swelling and to help reduce the pain you may experience in your knee. The physiotherapist or physiotherapy assistant will initially apply these, but after this initial application, you can also ask the nursing staff on the ward. You will be instructed on how to use ice packs at home.

**Exercises: Day of operation**

**Circulation Exercises**

These should be continued while you are in hospital and continued at home for up to two weeks after your operation.

**Quadriceps Exercises**

- This exercise works the muscle at the front of the thigh. It is an important muscle for moving your leg and walking.
- Tighten the muscle by pulling toes towards you and push the back of the knee down into the bed - hold for ten seconds then relax.
- Try to do ten of these every two to three hours.
- Your physiotherapist will help you progress this exercise as you recover.

Exercises: Day 1 onwards – Continue the previous exercises and add-

**Quadriceps Exercise with support**

Lie on the bed with your affected leg resting on a plastic bottle wrapped in a towel/or a thick towel rolled up.
Exercise your affected leg by pulling your foot and toes up tightening your Quadriceps muscle and straightening your knee. Hold for five to ten seconds and repeat ten times.

- After the bandages have been reduced you will be able to start knee flexion exercises.
- Knee Flexion (Bend) Exercise

Lie flat on your back with a sliding board under your leg. Slowly bend and straighten your leg by sliding your foot up and down the board. Repeat 10 times.

It is essential to restore/regain knee flexion as soon as possible. The physiotherapist will guide you with your exercises. It may be necessary for your physiotherapist to do gentle manipulation to help improve your range of movement or use a machine that bends your knee to assist you.

**Sitting down knee extension (straighten) exercise.**

This exercise works the quadriceps muscle at the front of the thigh.
Sit comfortably in a chair such as a dining chair.
Slowly raise the foot of the affected leg to a level position.

Hold for five seconds and then lower.
Knee flexion (bend) in standing with support

Standing with hand support on a firm surface for balance

Keep the thigh straight and bend your knee at a 90° angle. Hold for five seconds and lower, perform this exercise as slowly as you are able to maintain control and balance. Do not lean forward but try to stay as straight as possible.
Occupational Therapist (OT)

The OT will also check that your circumstances at home have not changed since your assessment within pre-admission therapy clinic. The OT will ensure you are managing with all of your activities of daily living prior to discharge home from the ward.

Practical therapy advice:

After your operation use the following advice to help you safely sit and stand, go up and down stairs and get in and out of your car.

Sitting and standing (- this can be repeated as an exercise)

Keep your operated leg a little in front of you.

Lower yourself down onto the edge of the seat using your arms, letting your operated knee bend.
As your knee flexion improves over the weeks after your operation you should aim to bring your operated leg back in line with your other leg as you sit/stand.

**Going up and down stairs - Walking up stairs with a handrail**

Stand close to the stairs. Hold onto the handrail with one hand and crutch/crutches with the other hand.
First take a step up with your healthy leg.

Then take a step up with your affected leg. Bring your crutches up on to the step. Always go one step at a time.
Walking down stairs with handrail

Stand close to the stairs. Hold onto the handrail with one hand and the crutch/crutches with the other hand.

First put your crutch one step down. Then take a step with your affected leg.
Then take a step down with your healthy leg, onto the same step as your affected leg. Always go one step at a time.

Walking up stairs without handrail - (Same for kerbs)

Stand close to the stairs with the crutches.
First take a step up with your healthy leg.

Then take a step up with your affected leg. Bring your crutches up on to the step. Always go one step at a time.
Walking down stairs without handrail - (same for kerbs).

Stand with crutches/sticks close to the stairs.

First put your crutches one step down. Then take a step down with your affected leg.
Then take a step down with your healthy leg onto the same step as your affected leg. Always go one step at a time.

**Getting in and out of your car**

**Getting into the passenger seat**

- Move the seat as far back as it will go and if possible recline the seat backwards. If you can, get into the car from a driveway or road rather than a pavement.
- Keeping your operated leg straight out in front of you, or if you are able to bend your knee you may do so, then lower your bottom onto the seat.
- Slide your bottom back towards the driver’s seat.
- Turn carefully and slide legs down into the well of the car one at a time

**Getting out of the car**

- Reverse of getting in the car (see above).
Driving

Your physiotherapist will give you guidance regarding when you can return to driving, (six weeks is the rough guide). Before returning to driving you should find it possible to sit comfortably in a car, and you should be able to perform an emergency stop without hesitation or discomfort. You should also contact your motor insurance company and inform them that you have had a total knee replacement. (Some companies may ask you for a doctor’s note to confirm you are medically fit to drive). Failure to do so may render your policy invalid.

If you take a new motor insurance policy out in the future (even in several years time) it is still advisable to inform the insurance company about your new knee. If you currently hold an ordinary car license you do not need to inform DVLC at Swansea. (Please inform DVLC if you hold a HGV license)

After discharge from the ward

Pain

Most people will have suffered the burning and non-stop pain, associated with their diseased knee for many years. Pain is the main reason why your joint has been replaced. That pain has gone. You may still experience discomfort after discharge from hospital as all your muscles and tissues continue to repair themselves. This usually eases by three months after the operation but some patients experience discomfort for up to twelve months. When you leave hospital you may be provided with painkillers or be advised to take some simple over the counter drug like Paracetamol for pain.

Your wound

Wound infections are rare, but when they do occur it is very important that a swab is taken of the wound before antibiotics are commenced so that the infection can be identified.

Prevention of blood clots

You will need to continue to take the medication which you were given on the ward. It is also important to keep moving about as well as continuing with your exercises. If you have concerns about calf swelling (see below) or you develop breathlessness or chest pain you should present to A&E to be checked.

Swelling of your leg and foot

It is normal to have some swelling after the operation. It may be useful to use ice to help reduce the swelling and it is important that you follow the instructions given by the physiotherapists. Swelling usually goes down overnight or if you elevate (support your leg up higher than your hip) for more than 20 minutes.

It is advisable to avoid standing for too long and to elevate your leg for about half an hour during the day for a week or so after discharge or until you are walking about normally. If the swelling does not go down with elevation and you develop a calf pain you should present at A&E to be checked.

Infections

If, at any time in the future, you develop signs of infection anywhere on your body, it is important that you seek advice from your GP straight away as some infections could enter the tissue around your new joint and cause problems.
Walking

It is important that you build up the distance you walk gradually. Never push yourself beyond your capabilities. If you lack confidence at first have a friend or your partner accompany you. Perhaps for the first week down the road and back until you gain confidence. Your physiotherapist will advise you when you can progress from crutches to one or two walking sticks. It is advisable for up three months to take your walking aid with you when out of doors.

General

Try to take exercise (e.g. a short walk) little and often. Try to keep your weight down to avoid overloading your new knee. Do not actively garden for three months.

Sexual Intercourse

As you may not like pressure on your knee for some time after the operation here are some guidelines:

- Women: You should find it comfortable to lie on your unoperated leg with your operated leg slightly bent at your knees and hips and supported on a pillow.
- Men: You may find it more comfortable to lie on your back with your partner kneeling astride you. Alternatively, you may prefer to lie on your unoperated side, with your operated leg supported on your partner’s thigh.

Flying

We advise you to avoid flying for three months after the operation. Please discuss this with your consultant’s team before the operation.

Looking after your new knee joint

To look after your new knee joint on a long term basis it is advisable to maintain a regular exercise regime and keep your weight down. High impact activities, for example running and contact sports, should be avoided.

Further information
If you have any problems or questions relating to the following, contact the member of staff concerned:

Pre-operative Assessment Office
Tel: 0151 282 1901
Textphone Number: 18001 0151 282 1901

Wound problems
Tel: 0151 282 6000 and ask for bleep 4199.
Textphone Number: 18001 0151 282 6000 Bleep 4199
This service is available daily from 07.30 to 20.00.

Excessive swelling of your leg and/or breathlessness
Phone your GP or attend the Emergency Department (A&E).

Therapies pre-admission clinic enquiries
Tel: 0151 706 2760
Textphone Number: 18001 0151 706 2760
Mobility problems
The Physiotherapy Dept. at BGH on 0151 282 6260
Textphone Number: 18001 0151 282 6260
Mon - Fri 08:30 am - 4.30 pm (answer phone available out of hours)

Activities of daily living
The Occupational Therapy Dept. at BGH on Tel: 0151 282 6260
Textphone Number: 18001 0151 282 6260
Mon - Fri 08:30 am - 4.30 pm (answer phone available out of hours)

Equipment Returns
Liverpool Community Equipment Service on Tel: 0151 295 9800
Knowsley Community Equipment Service on Tel: 0151 244 4380
Sefton Community Equipment Service on Tel: 0151 288 6208

Queries regarding clinic appointments
Lower Limb Arthroplasty Research Office on Tel: 0151 282 6481
Textphone Number: 18001 0151 282 6481

Sexual relations:

Arthritis Research Campaign
Copeman House, St Mary’s Court, St Mary’s Gate
Chesterfield, Derbyshire
S41 7TD

Liverpool Disabled
Living Centre
Unit 4-5
Dempster House, Brunswick Dock,
Liverpool, L3 4BE
Tel: 0151 296 7742

Helpline number:
Lower Limb Arthroplasty
Research Office Tel: 0151 282 6481
Textphone Number: 18001 0151 282 6481 (Answer phone is available out of normal office hours)
If you need support after having your Joint Replaced then Contact the Joint Replacement Information Network on:

Joint Replacement Information Network:
Tel: 0151 737 1862
Textphone Number: 18001 0151 737 1862
Email: manager@jrin.info
Email: advice@jrin.info
www.jrin.info
www.besttreatments.co.uk/btuk/conditions/4478.html
www.besttreatments.co.uk/electsurgeryside/869.html
Remember the information and guidelines given in this book are general and you may be given different advice depending on your circumstances and medical history. If you are in any doubt about whether the information applies to you please speak to a member of staff.

We wish you a speedy and safe recovery and hope the service provided by the hospital has been satisfactory.

If during any stage in your outpatient or inpatient stay you notice something that could be improved or if you have any complaint about the service provided please tell us.

We really do want you to let us know when we get things wrong, but we also like to know when you feel we are getting it right. If you have been satisfied with the service you have received from us, or have any suggestions about how we can improve our service, please let us know.

Author: Trauma and Orthopaedic Directorate and Therapies Directorate
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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

يمكن توفير جميع المعلومات المتعلقة بالمرضى الموافق عليهم من قبل اتفاق المستشفى عند الطلب بصيغ أخرى، بما في ذلك اللغات أخرى وبطرق تسهل قراءتها وبالحروف الطباعية الكبيرة وبالصوت وبطريقة برايل للمكفوفين وبطريقة مون والكروتيا.

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دحمماان واربیشیندا بیکانلیدا اه ئوروکا اب ئالوگول ياخاي وشكا مرکا لا قدسادو له جاره کارا، سیدا قودادو له، اكريس فود، فار وادوهين، دھگريا، فارا برائیه داکدا یندها لا’، مون او نیداام ایتلاروونیه اح.