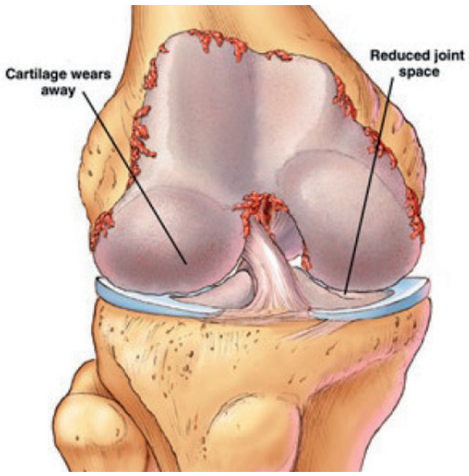
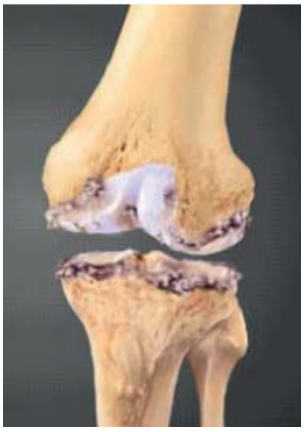
Total Knee Replacement

MATRIX
Health Services UK Ltd

Introduction

The knee joint is made up of the bone in the top of the leg (the femur), one of the bones in the bottom of the leg (the tibia), and the kneecap (the patella). All these bones have a smooth cartilage lining, which means a healthy knee joint can move freely and painlessly.
The most common cause of damage which leads to a knee replacement is arthritis. Arthritis causes the cartilage in your knee to wear away, and expose the bone which is no longer protected. This means the knee will be painful, stiff and commonly deformed, often having a significant effect on your life.





Arthritis of the knee

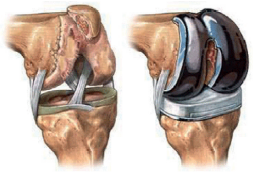
What to expect

A knee replacement is an operation which involves replacing a damaged knee joint with an artificial one. Usually, the ends of the two bones making up the knee joint are replaced with metal surfaces, and a plastic bearing is inserted to act as the cartilage (a total knee replacement).

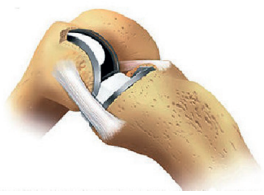
Knee replacements usually are total in variety. This essentially means that both the lower end of the thigh bone (femur) and upper end of the leg bone (tibia) which make up the knee joint are replaced by metal surfaces and a plastic bearing is inserted in between. The back of the kneecap (patella) will be replaced by a plastic disc but not in all cases. The decision to perform this is taken at the time of surgery when your knee is opened. Sometimes, only one part of the knee is replaced (a partial or uni-compartmental replacement or patello-femoral knee replacement), and sometimes, the underside of the kneecap is trimmed and a plastic button inserted to help smooth the knee movements.

A knee replacement will aim to relieve your pain, and improve your movement, strength and walking. About 8 out of 10 people say they are happy with their knee replacement, 1 in 10 are unsure and 1 in 10 are disappointed.

A knee replacement will aim to relieve your pain and improve movement.



Before After



Oxford Unicompartmental Knee Replacement

What are the disadvantages?

A knee replacement is an artificial knee; it is not a new knee as compared to a natural knee, although people report it is about three-quarters normal.

Following knee replacements people can experience the following;-

1) Some limitation of movement in the knee, usually bending, and some limitation of straightening which is often more noticeable to the patient

2) Difficulty kneeling, patients report this is unpleasant and can be painful

3) Numbness over the outer edge of the knee which does tend to improve over 2 years but it is unlikely to recover completely.

4) A feeling of clicking or clunking in the knee

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What are the risks?

All operations have risks, generally it is thought that a risk of 1 in 1,000 (0.1%)is relatively safe. Having a knee replacement is a major operation but the results are generally very good and side effects are rare. Complications do occur in about 1 in 20 (5%) cases, most of these are minor and can be successfully treated.

It is thought that a risk of 1 in 1,000 (0.1%)is relatively safe.

Problems that can occur during or soon after the operation

These can be divided into the knee itself and more general medical problems.

The Knee

Following knee replacement surgery arthrofibrosis can occur this is estimated to occur in 1% of cases. This is a condition where the soft tissues surrounding the joint begin to tighten and develop scarring which subsequently reduces the amount of movement which can take place at the knee. Early mobilisation of the knee joint is important to achieve the maximum range of movement and prevent the development of arthrofibrosis.

There is a risk of a wound Infection, this happens in about 1 in 50 cases (2%). To minimize this risk antibiotics are given during and shortly after the operation. Hand washing (decontamination) and avoiding unnecessary touching of the wound and dressings are also essential parts of infection control for both staff and patients. In about 1 in 150 cases (0.6%) a deep infection can develop which will require further treatment.

Although rare, in cases where the infection cannot be cured it may be necessary to remove the implant, stiffen the knee joint or in exceptional circumstances amputate the leg above the knee the risk of this is about 0.5%.

General medical problems

Thrombosis

A blood clot known as a deep vein thrombosis (DVT) can form in your leg which will need treatment. More serious than a DVT is a clot in your lungs. To minimise the risk of developing these problems, we use a number of options which include foot and calf pumps during your operation, taking medication, injections, early mobilisation and wearing some elastic (TED) stockings for 6 weeks following the operation. Which of these will depend on your surgeon's estimation of your risk of DVT and the side effects of these treatments.

Other problems

There is a small risk of some of the soft tissues, around the knee, ligaments, arteries or nerves, being damaged during the operation. About 1 in 50 (2%) people suffer ligament damage, 1 in 1,000 (0.1%) arterial damage and 1 in 100 (1%) suffer damage to a nerve.

Unfortunately there are more serious risks of knee replacement surgery including heart attack, stroke, chest infections or in a small number patients, death (1 in 200 or 0.5%). These things are more likely to happen to patients who already have heart or chest problems and the risk will vary with each patient.

In general a younger person with no other medical problems will be a lower risk than an older person with a number of medical problems such as diabetes or heart disease.

Important considerations before surgery

There are many ways in which you can help prepare yourself, both physically and mentally for a knee replacement, and the rehabilitation which will follow.

The most important factor in the success of your knee replacement is you, and as well as working hard after your operation, you must also work hard before it.

If you are overweight you should try and lose as much weight as you can preoperatively, as this may influence the success of your operation, as well as your general health.

You should practice your knee exercises (which are explained in this booklet) regularly, to prepare your knee for surgery. Your knee joint will be replaced, but your muscles which work it will not, so you need to make sure they have enough movement and strength in them to function afterwards

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Questionnaires and consent

We would like you to complete both the KOOS and the Oxford Knee Score to help us assess the level of pain and difficulty you are experiencing with your knee. This information will be recorded when you attend your preoperative assessment. Don't worry if you have difficulty answering any of the questions the staff will be able to help you.

If you have difficulty answering any of the questions the staff will be able to help you.

Consent

Please read and make sure you understand the consent form. If you do not understand any part of it please ask a member of staff. Also, if you have any other questions or concerns about your treatment please make sure you ask and have answers to your satisfaction.

The National Joint Registry

This is a national database of all people who have had knee replacements. Its purpose is to monitor all the different types of joint replacements to ensure that they all do their job properly and that if there are any problems these be identified early. We would like you to read the information contained in these booklets, the staff at the preoperative assessment clinic will discuss them further with you when you attend your appointment.

Preoperative Anaesthetic Assessment Clinic (PAAC)

You will need to undergo an anaesthetic assessment which you must pass before your operation can proceed. This is designed to assess how medically fit you are to undergo surgery. You will receive an appointment to attend the Orthopaedic Pre Operative Assessment Clinic prior to your surgery date. The clinic is based at Sunderland Royal Hospital in the Fracture clinic.

The assessment will take approximately 1 hour and will involve a number of investigations including x-rays, bloods and an ECG (which is a heart trace). You will be required to produce a urine sample during this assessment. Please make sure you have a drink of water about an hour before your appointment

It is really important for you to inform the team of any medical conditions including allergies you suffer from and any medication you are currently taking. You should also bring a copy of your most recent prescription oor a list of medication you currently take.

Sometimes the assessment will result in you needing some further investigations or treatment. Unfortunately this could result in your operation having to be cancelled. The most common reasons for patients operations having to be cancelled are urine infections, unstable angina and high blood pressure.

If you have any concerns regarding your general health or the medication you are currently taking please consult your GP.

The assessment will take approximately 1 hour.

Passed Pre-assessment

When you have successfully passed all the medical checks that are necessary prior to your surgery, your operation will go ahead on the date planned.

In the meantime if there is any alteration to your medical state or you are given any new medication by your GP you must contact the nurse who assessed you in the preoperative clinic.

Failed Pre-assessment

Unfortunately patients may fail due to a number of medical reasons. Often they are due to high blood pressure, urine infection and unstable angina

It is important for you to monitor how your journey is progressing from this point. Once you have undergone any investigations or treatment you must contact your surgeon's secretary so you can continue your journey.

Unfortunately patients do get lost in the system moving from one speciality to another. Please don't just wait, contact your surgeon's secretary so they can chase up any referrals or treatment. This will help to keep any delays to a minimum.

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Social Support

On leaving hospital after your operation you will need some assistance at home. If you have any concerns please discuss this with the nurse at your pre-operative assessment. It is really important that we identify and address any problems which could potentially stop you being discharged from hospital. A referral to social services can be made at this point.

Feel free to write any queries you have down which you can ask at the pre-operative assessment. Do you have transport home when you are discharged from hospital? Could you arrange for someone to pick you up if you were discharged at short notice?

Physiotherapy

Pre-op exercises

Because of the problems in your knee, you may currently find:

- You cannot fully straighten your knee
- You cannot fully bend your knee
- The muscles around your knee are weakened

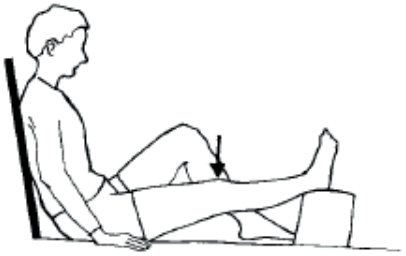
It will be of great benefit to you if you improve on all of these factors before your knee replacement, so start them now.

Straightening your knee

Your knee will probably not straighten fully at the minute because of the restrictions of pain, and because all the muscles and tendons around your knee have shortened. It is important you try and stretch these out, so when your knee joint is replaced, they allow it to straighten fully.

You should rest with your leg straightened and your foot supported, but with nothing under your knee. This way, gravity will help you to pull your knee as straight as it can. You should aim to do this every couple of hours during they day, stretching until you feel an ache in your knee.

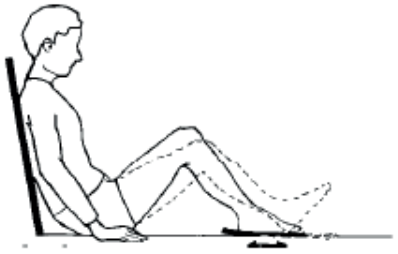
Also, you should not rest with your knee over a pillow in a bent position for prolonged periods. Although this may feel comfortable, if it is there too long it will make it even harder to straighten your knee.



Bending your knee

The changes in your knee which stop you straightening it will also stop you bending it fully, but again, it is important to get your knee moving before you have surgery.

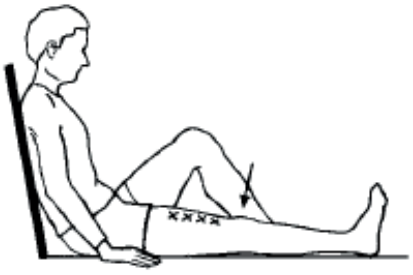
You should try and pull your knee up towards you while you are sitting up, on the couch or the bed until you feel a stretch around the knee. You should try and hold this stretch for at least 30 seconds and repeat it regularly throughout the day.



Strengthening your knee muscles

Because of the stiffness and pain in your knee, the way your muscles work will be restricted. It is important to strengthen these up as much as you can before surgery, as these muscles will give your new knee the strength and stability it needs to work properly and painlessly.

You should tighten the large muscle just above your knee, trying to pull your kneecap towards you and push your knee straight. You should hold this for 5-10 seconds and aim to do 3 sets of 10, about 4 or 5 times every day.



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Knee School

You will be given the opportunity to attend knee school prior to your operation so you can meet the physiotherapists and they can explain about the rehabilitation you will go through once you are out of hospital. They will also explain a bit more about the operation, run through the exercises you have hopefully already started. And answer any questions about the operation you may have.

Skin decolonisation

Hospital acquired infections do occur and are a potential risk to joint replacement patients. To minimise the risk of developing an infection you are requested to follow a skin decolonisation process. The products will be given to you at your PAAC assessment appointment. Please follow the instructions detailed below following this procedure, which should reduce the number of bacteria that naturally live on your skin and therefore reduce the risk of you developing an infection after the operation.

Prontoderm Nasal Gel

- Apply a small amount three times a day to each nostril for the five days before your surgery date.
  Avoid the eyes.

KEEP OUT OF THE REACH OF CHILDREN

Prontoderm Cleansing Foam

- Use on body and hair when showering or bathing for the five days before your surgery date.
- Avoid the eyes, inside of mouth and nasal passages.
- Prontoderm mouthwash use twice daily after brushing the teeth for the five days before your surgery date.

Operation and Recovery

All admissions in Sunderland are planned for Ward D48 via the admissions lounge.

When you arrive at the hospital you may be required to wait in the admission lounge until a bed is made available for you. A nurse will ask you to go through some of the information collected in Pre assessment for safety reasons and to check for any changes.

Admission to the ward

- We recommend you bring some clothes you can wear once you get up out of bed. Loose fitting garments that are easy to get on and off are probably the most appropriate. A well fitting pair of shoes will give you more support than slippers when you start to walk after your operation.
- Visiting times - 2-4 pm and then 6-8pm
- Hand washing. This is found to be the main preventative practice for infection and patients and all staff are encouraged to wash their hands and use the alcohol gel which is available within the wards and departments.
- You will be allocated a named nurse
- You will be admitted on the morning or afternoon of your surgery and you will return from theatre recovery to ward (D48).

Before the operation

You will be seen and examined by your anaesthetist to make sure you are medically fit for the operation. The anaesthetist will discuss the type of anaesthetic you will receive. One of the medical staff will discuss the operation and the consent procedure.

You must not eat or drink anything 6 hours prior to your operation other than a small amount of water if you need to take your regular prescription.

You will then put on a theatre gown and cap. It is also necessary for you to wear a white support stocking on your unaffected leg to go to theatre, these are designed to help reduce the risk of a blood clot developing in your legs during or after the operation.

Your Anaesthetic

The following information will help to make you aware of what to expect so you can face your operation more confidently. It is very difficult to answer everyone's questions but you will be able to ask your anaesthetist to explain things further or answer other questions.

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Anaesthetists

Anaesthetists are fully trained doctors who have spent additional years in specialist training in anaesthesia and are responsible for your overall medical care immediately before, during and immediately after surgery. The anaesthetist caring for you may be in his/her years of specialist training but will always be supervised by a consultant and no-one will provide your care unless they are adequately trained to do so.

Your anaesthetist is responsible for your overall medical care before, during and after surgery.

Before your anaesthetic

Your anaesthetist will visit you to find out about any health problems you may have, make a plan for your care during and immediately after the operation and explain things to you. You will be asked a number of questions relating to your general health, medications, allergies etc and the anaesthetist may examine you and order further tests. This preparation is necessary to plan the anaesthetic most suited to you and your operation. Because the anaesthetist must ensure your safety, it is occasionally necessary to cancel operations to treat new health problems, alter medication or improve long-standing illnesses.

You will be asked to stop eating and drinking for a period before your operation to ensure your stomach is empty to prevent regurgitation of food or liquid from your stomach to the lungs which is harmful. So, although being hungry and thirsty is unpleasant you must follow the advice of the staff for your safety.

You should take your usual medication, at the normal times on the day of surgery, with a small amount of water unless told otherwise.

The anaesthetic

During your anaesthetic you will be cared for by a team of anaesthetists and their assistants. Your anaesthetist will stay with you during the whole operation and will provide safe, comfortable conditions for the operation with the help of a number of machines monitoring your pulse, blood pressure, breathing, depth of anaesthetic etc, and by administering drugs including painkillers, anti-sickness medication and fluid drips.

There are generally 4 types of anaesthetic used: sedation/ local/ regional /general

1) Sedation drugs are given to make you relax and drowsy but you remain conscious. This may be given with a local or regional anaesthetic.

2) Local Anaesthetic: the site of your operation is numbed with local anaesthetic to make it pain free e.g. injection at the dentist.

3) Regional anaesthetic makes an area numb by numbing the nerves to that area by the injection of local anaesthetic around the nerves. It can be used for the operation itself and for pain relief after the operation. It includes spinal/epidural anaesthetics where the nerves are numbed with a needle in the back

4) General anaesthetic means putting you off to sleep where you are given medication to make you unconscious throughout the operation. Drugs are given to keep you asleep , relax muscles, relieve pain and prevent sickness.

The decision as to which anaesthetic you have is made by your anaesthetist and is based on factors such as the type of operation and your general health.

If there is an option it will be discussed with you and your preference taken into account, but medical reasons may prevent a free choice.

Modern drugs and technology have made anaesthetics safer than ever, but there are still risks associated with an anaesthetic. The seriousness and how likely the risk depends on the type of operation and your general health and so your own risk will be discussed when your anaesthetist visits you before the operation, but in general if you are in good health having an anaesthetic is as safe as a train journey. Dying under anaesthetic is extremely rare with about 5 deaths for every million anaesthetics in the UK.

After your anaesthetic

Your anaesthetist oversees your recovery from the anaesthetic and is responsible for organising pain relief, fluids and anti-sickness medication for immediately after the operation. You will be looked after whilst waking up by your anaesthetist who then hands your care to a recovery nurse who stays with you until you are awake, comfortable and ready to return to the ward.

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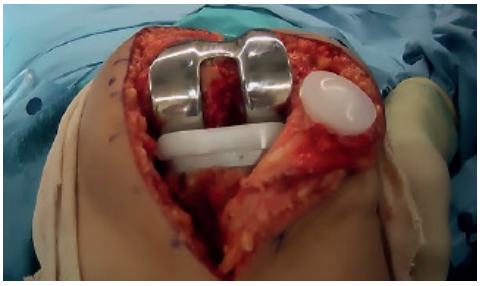
Your Operation

This usually takes 1 to 2 hours depending on the complexity of the surgery but you will be away from the ward for longer than this because of recovery time. The operation is performed through an adequate incision in the front of the knee. The length of the incision is approximately 6 inches but may vary depending on the size of the knee and deformities. The surgical wound is often closed using staples but your surgeon may chose a different method such as a stitch from within. There may be a tube inserted into the knee to aid in removal of unwanted collection of blood within the replaced knee.



After Your Operation

When you return to the ward you can expect to have :-

1) An oxygen mask on your face, the anaesthetist will decide if this is necessary and for how long the oxygen should be given.
2) A drip into your hand, to replace any fluid
3) A bulky crepe bandage dressing on your leg
4) A drain from your knee attached to a bottle on the side of the bed.
5) A degree of pain, however the nursing staff will try to ensure that you are as comfortable as possible. You may be offered the use of a Patient Controlled Analgesia (PCA) machine, which connects to your drip. This machine enables you to give yourself pain killing medication as and when you feel you require it.
6) Your legs will feel numb, this usually lasts for 3-6 hours but occasionally this feeling can last for 24 to 48 hours.
7) It is important to monitor your recovery, regular checks will be taken at regular intervals following your operation,

Check X-rays

Before you leave hospital you will require a full set of X-rays of your new knee to check the position of the implant.

Getting Mobile Again

After the first day the various tubes will be removed and you will gradually start to eat and drink.

How well you recover and progress following your surgery is very much up to you. Some patients do have some medical problems which can slow down their progress but in general most patients are able to start their rehabilitation as soon as they return from surgery.

One of the ward physiotherapists will see you shortly after the operation and you will be given specific instructions regarding your exercise programme.

This section will set the specific goals you need to achieve to optimise the outcome of the surgery. These can be divided into short, medium and long term goals.

The short or immediate goal is to recover from the surgery and gain good muscle control of your leg.

Initially you will be very apprehensive and not sure whether to move while lying in bed one patient described it like this:

"it was a strange sensation not being able to feel my legs, but slowly the feeling started to come back in my toes. I was a bit apprehensive about trying to move so I moved my good leg first. This was fine so I tried to move my toes first and then my foot of my operation leg and generally shift my position".

We strongly advise you to try and move your non-operated leg and arms and generally shift your position in bed to ease the pressure especially on your buttocks and heels. Try this first and then as you gain more control of your operated leg you can gently try and move this leg to ease the pressure especially on your heel.

As already described, one of the risks postoperatively is developing a blood clot. Regular contractions of the buttocks, thighs and moving your feet up and down at the ankle contracting the calf muscles will help increase the circulation. You should continue to do these when you are sitting or lying for any period.

The medium goal is to achieve the discharge criteria which are:

1. A dry wound
2. A good thigh muscle contraction
3. Beginning to bend your knee towards 90°
4. A good walking pattern, weight bearing on a straight knee with walking sticks, climb a flight of stairs and be able to demonstrate you can cope at home.

If you have recovered from the surgery, your wound is clean and dry and you can demonstrate a good walking pattern you can go home your length of say in hospital could be as short as 3 days. We encourage people to leave hospital as soon as they are able as there is evidence that prolonged hospital stay is associated with increased risks.

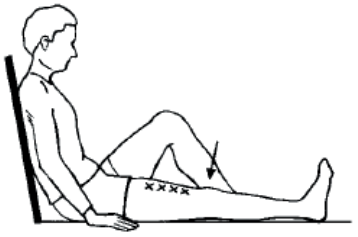
Physiotherapy exercise regime after operation

If you have been doing the exercises described earlier it will be easier to do the exercises now to get your new knee moving. While you are in hospital you should concentrate on keeping your thigh muscles strong, getting your knee straight and on achieving a good safe walking pattern. You do not need to worry about knee bending this will come with the guidance of the outpatient physiotherapists after your discharge from hospital. It is more important for your wound to be dry and healed before you start to work on knee bending.

1. Thigh muscle strength

You should tighten the large muscle just above your knee (quadriceps), trying to pull your kneecap towards you and push your knee straight. You should hold this for 5-10 seconds and aim to do 3 sets of 10 on the hour every hour.

This may be painful to start off with but you must continue to do this exercise regularly, as the muscle begins to get stronger you will have more control of your knee and the discomfort will reduce.
A good contraction of the muscle in your thigh is vital to be able to stand on your leg and start to walk. The knee will feel unstable and have a tendency to give way if the thigh muscles remain weak.
It is important to continue doing these exercises not only while you are in hospital but also when you are discharged home.



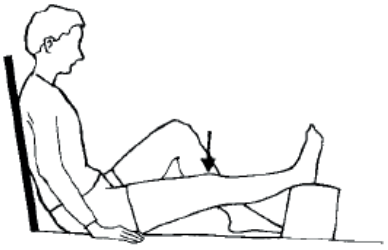
2. Straight (extended) knee

Your knee will probably not straighten fully at the minute because of the restrictions of pain, and the bulky dressing. It is important you aim to get your knee as straight as possible after a knee replacement.

You should rest with your leg straightened and your foot supported, but with nothing under your knee. This way, gravity will help you to pull your knee as straight as it can.

You should aim to do this every couple of hours during the day, stretching until you feel an ache in the back of your knee.

Also, you should not rest with your knee over a pillow in a bent position for prolonged periods. Although this may feel comfortable, if it is there too long it will make it even harder to straighten your knee.



3. Good safe walking pattern

You usually start to work on this the day after the operation.

You will be asked by the physiotherapists to lift your leg off the bed as an indicator of how strong your thigh muscle is. We call this a Straight Leg Raise (SLR). The most important aspect of this is the emphasis on STRAIGHT with your thigh muscle as tight as possible.

Initially you will stand with the physiotherapists and usually a walking frame before taking a few steps. Remember to straighten your knee and tighten your thigh muscles before putting the weight on your leg and taking those first few steps. One patient described his first steps like this:

"I wasn t really sure if I could put my weight on my leg when I first got up. I tightened the muscle in my thigh, pushing my knee straight and slowly put the weight on my leg. My leg was a bit wobbly at first but after the first few steps it got much better. Within 2 days of the operation I could get out of bed and walk to the toilet by myself using my walking sticks for support"

As your mobility improves you will progress from the walking frame usually onto two walking sticks. Your walking pattern will slowly improve with practice. You should aim to strike the ground with your heel as you put your affected leg forwards, brace your knee straight as you take the weight onto it and step through with your good leg.

Once the physiotherapist is happy that you are safe you will be encouraged to practice walking to the toilet and along the ward corridor independently. The final stage is stair practice; once you have done this safely you have passed the physical milestones.

4. Knee bend (flexion)

The amount of bend you achieve will have a significant effect on your ability to do normal daily activities. In the initial stages of your rehabilitation we would like you to focus on the straightening and strengthening aspects. You are encouraged to bend your knee while getting in and out of bed, sitting in a chair and getting on and off the toilet. This is enough in the early stages, you need to strike a balance between allowing the wound to heal and preventing your knee from becoming stiff.

Initially the wound is the most important but as this starts to heal you will be encouraged to actively bend your knee as part of the exercise programme. How much bend you ultimately achieve is very much down to you, there will be an element of discomfort when you try to bend your knee but this is quite normal.

Remember this exercise!!

You should try and pull your knee up towards you while you are sitting up, on the couch or the bed until you feel a stretch around the knee. You should try and hold this stretch for at least 30 seconds and repeat it regularly throughout the day.

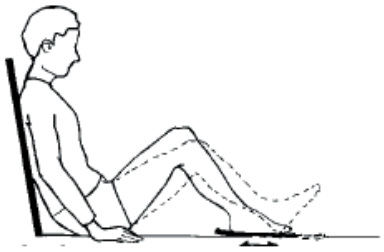
Good muscle power in your thigh is important to help you bend down and get up out of a chair and a general level of fitness which can be achieved by slowly returning to the activities you enjoyed before your operation.

We recommend you follow the little and often principle throughout the rehab process, especially in the early stages. You should aim to exercise, walk and rest in equal proportions throughout the day.

Your knee will be swollen and uncomfortable initially but this will gradually reduce as the healing process continues over the next few months. The knee and lower leg will have a tendency to swell over the course of the day but will settle in bed overnight. When resting during the day you are advised to sit with your foot above the height of you hip to help reduce the swelling.

To achieve this goal you will need a knee that bends well, this is a must for normal daily activities like getting up out of a chair, on and off the toilet, climbing stairs and driving a car, some patients achieve 120 degrees.

Most patients report the knee starts to settle down becoming less painful, hot, red and swollen at approximately 3 months, this will continue over the course of the year after the operation.



At home

TED stockings

It is important for you to continue to wear the elastic white stocking for 6 full weeks following your surgery. You can take them off for short periods to wash them but we strongly recommend you wear them even in bed.

We strongly recommend you wear the stockings in bed.

Wound care

The ward will arrange for a district nurse to come and visit you at home to check your wound. Some patients will have clips which will need to be removed, others will have simple dressings which only need to be removed as the internal stitches will dissolve themselves.

The district nurse will come and visit you at home to check your wound.

Medication

We recommend you take regular pain relief in the early stages following your operation.

As the pain slowly starts to reduce we recommend you use the pain relief only when necessary.

This should include:-
Paracetamol 2 x 500mg tablets 4 times per day or Codeine if necessary for stronger pain relief.

Total Knee Replacement

General Health

After your operation you will tire easily with activity and exercise. This is normal and your energy levels will gradually recover. Sometimes people can become constipated - this can be due to codeine. If you are taking codeine try to reduce the amount you are taking and ideally stop taking it. Also, make sure you are drinking enough water - for most people this should be about 2 litres a day.

Drink enough water, for most people this should be about 2 litres a day.

Exercise regime

We recommend you continue the exercise regime you were doing in hospital following the little and often principle of walking, exercising and resting in equal proportions.

The distance you walk in the early stages should be limited by the pain and swelling, gradually try and walk around the house then progress to short distances outside.

Ice

Your knee may be swollen, hot and red. We recommend you apply an ice pack or a bag of something frozen (for example frozen peas) to the knee. It may be better to put a tea towel over the area first as the ice can burn the skin. Try this for approximately 10 to 15 minutes at a time about 4-5 times a day.

Apply an ice pack... put a tea towel over the area first as the ice can burn the skin.

Outpatient Physiotherapy

You should be given an outpatient appointment to attend physiotherapy before you are discharged.
The initial appointment will be within 10 days of discharge and is necessary to monitor your progress. Most patients who are progressing only need to attend 1 or 2 appointments.

Initial appointment will be within 10 days of discharge to monitor your progress.

Walking Sticks

These are necessary in the early stages to give you confidence and help you walking with some support. There are no strict rules but in general we recommend you use two at first, as you progress and become more mobile you will probably be able to walk around the house with one and eventually none. When you first go outside we recommend you use at least one stick until you have a good walking pattern and feel confident. The ultimate goal is to walk without any sticks.

When you first go outside we recommend you use at least one stick until you have a good walking pattern.

Stairs

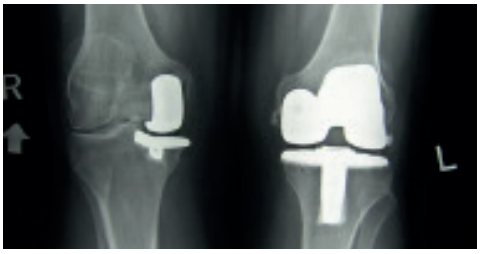
When you are in hospital you will be taught to climb the stairs. The technique is to put your unaffected leg up onto the stair first followed by the operated leg onto the same stair and continue taking one step at a time. Coming down the stairs we recommend you put the operated leg down first, tighten the thigh muscle, lower yourself slowly and step the unaffected leg onto the same step and continue one step at a time. As you progress you will be able to climb the stairs normally going up is easier and less painful than coming down but you should eventually be able to do both.

Swimming, golf, dancing and other activities should be possible by 3 to 4 months.

Total Knee Replacement

Outpatient appointment

You should be seen by your surgeon 3 months after your operation. Depending on the day of your discharge you may receive this appointment before you leave hospital or it may be posted out to you. If you do not receive an appointment please ring your surgeon's secretary to obtain one. At some point in your follow-up you will be asked to fill in the questionnaire again to see how much you have improved. Periodically you will have x-rays taken to ensure that your replaced knee is functioning well without any signs of loosening.



If you have a problem

Occasionally people have problems after they get home from hospital. Should you have a problem please contact your consultant's secretary or the Matrix office to ask for advice as to what to do. If it is outside normal hours and your problem cannot wait please call 111 for advice.

Should you develop a problem please contact us for advice.