

Pre Assessment

Total Knee Replacement

Unicompartmental Knee Replacement



This leaflet is for patients who are preparing to come in for their total knee replacement operation. It includes information about what to expect before, during and after the procedure.

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The doctors, nurses, physiotherapists and occupational therapists at Bedford Hospital have produced this booklet to give you and your family a basic understanding of a total knee replacement or unicompartmental knee replacement operation, including things that you should know, both before and after the operation.

The information in this booklet aims to answer as many of your questions as possible. There are explanations about what arthritis is, what a knee replacement is and what you can expect before and after the operation while you are in hospital. We have also included information that you will need during your rehabilitation at home after your operation.

Keep this booklet in a safe place, as you may often want to refer to it. There is a lot of information in this booklet and it has been written so that you can read small sections at a time depending on what stage you are at.

If you have any questions or anything that you do not understand please ask your surgeon, nurse or therapist.

Arthritis

The term arthritis covers a number of conditions where there is progressive damage to a joint or joints. The most common type of arthritis is osteoarthritis, where there is progressive wear and tear of a joint. This usually happens without a known cause but in a few cases it may be the result of a previous injury.

Arthritis occurs when the smooth lining (cartilage) which covers the bones of a joint wears away, exposing the underlying bone to damage. This causes roughening of the bone and distortion of the joint, which results in pain, stiffness and restricted movement.

This is a very brief description of arthritis but if you want to know more about the condition you may find it useful to read the Arthritis Research Campaign booklet called Osteoarthritis (contact details are at the back of this booklet).

Why you need a knee replacement

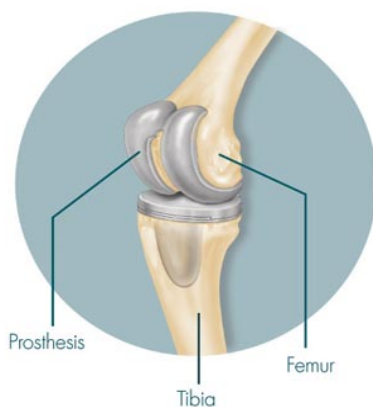
Patients are considered for a total or uni-compartmental knee replacement if:

- They have significant pain during the day;
- The activities involved in daily living are severely restricted;
- The pain disturbs their sleep;
- Their symptoms are not relieved by conservative treatment (such as pain killers, use of a walking stick and physiotherapy).

Knee replacements have been carried out regularly for over 30 years and have been successful in relieving pain from a severely arthritic knee. It is a major operation and the majority of patients are happy with the results. However, there are some risks and complications which you need to be aware of before you agree to have the operation. These are discussed later in this booklet in the section called 'risks of knee replacement'.

Knee Replacement

Total Knee Replacement



Unicompartmental Knee Replacement



The operation involves replacing the worn upper surface of the shin bone (tibia) and the worn lower surface of the thigh bone (femur). The knee cap (patella) can also be resurfaced if required. The tibial component involves a flat metal surface, which is firmly fitted on to the bone, on top of which lies a plastic insert, that provides a bearing surface. The surface of the femur is replaced with a rounded metal component. These two parts are usually fixed into the bone using a special type of cement. In a uni-compartment knee replacement, only the inner side or the outer side of the knee joint is replaced.

This new joint aims to relieve pain and reduce stiffness which helps improve mobility.

Risks of knee replacement

A knee replacement is now a very reliable operation but there can be complications as with any operation.

Anaesthetic – the anaesthetist will see you on the ward before your operation to discuss the type of anaesthetic and the possible risks with you. At pre-operative assessment you may be referred for an anaesthetic opinion before you come in for your operation. This will be done if you have certain health problems that may increase the risks.

Blood clot (DVT) – some patients (40%) will develop a blood clot in the deep veins of their leg. Most of these cause no problems but 1-5% do. They can happen if you lie still for long periods and the circulation becomes sluggish. If you get a blood clot, the leg (especially the calf) is painful, reddened and more swollen than usual. If this happens after you go home, you should contact your GP straight away.

There are several ways of reducing the risk of this happening. You will be given a pair of special elasticated stockings to wear while you

are in hospital. The doctor will prescribe a drug to help thin the blood, which is given as an injection every day.

The physiotherapist and nurse will also teach you exercises to do which will reduce the risk and you will be encouraged to get out of bed as soon as possible.

A more serious complication caused by these blood clots can occur if it dislodges and travels in the blood stream to the lungs. This is called Pulmonary Embolism. The complication is rare and occurs in less than 1 in 100 patients. If it happens it can cause sudden breathlessness, collapse or sudden death.

Infection – there is a two in 100 chance of bacteria lodging in the tissues around your knee replacement. This can occur at the time of the operation, or later in life following spread from another infection. It is a wise precaution to inform your dentist, doctor, or hospital that you have had a knee replacement when you visit them for treatment.

In some cases, you may need to take a short course of antibiotics to prevent an infection. If you suffer with diabetes, rheumatoid arthritis, psoriasis, leg ulcers, obesity or you are taking steroids, the risk of infection happening is higher. If the artificial knee becomes infected it may need to be taken out. It may be possible to replace it at a later date.

There are several ways that we try to reduce the risk of infection. At pre-op assessment you will be asked whether you have any wounds, leg ulcers, problems with your teeth or symptoms of a urine infection. Blood tests, urine sample and in some cases skin swabs will be taken.

A special operating theatre with a 'clean air' system, where the air is filtered to reduce the risk of infection, is used for this operation. You will also be given two doses of antibiotics via your drip in the 24 hours after the operation and oral antibiotics if there is any sign of infection while you are still in hospital.

Early loosening – occasionally, the artificial knee loosens or wears for a variety of reasons. If this happens, the knee will need to be taken out and a new one put in, this is called a revision operation.

It is important to take these risks into consideration before agreeing to have the operation. If you have any questions please ask the nurse or doctor at the pre-operative clinic.

Please remember that over 90% of patients who have had a total knee replacement are happy with their new knee.

Benefits of knee replacement

Pain relief – the pain you experience from the arthritic joint will get better. After the operation you will get pain but this will improve as you recover.

Functional improvement – you should be able to walk without pain, at least the same distances and probably even further than before your operation. You should find it easier to get upstairs and other everyday activities will be easier.

Quality of life – your quality of life should improve. Remember it takes time to recover from the operation and build up your muscle strength.

Pre-operative assessment

You will need to attend a pre-operative assessment clinic about two to four weeks before your operation. This is to make sure that you are fit for operation. You will meet the nurse practitioner, and a doctor. You may be referred to an occupational therapist if required.

The nurse will go through your medical history with you; check all the tablets you are on; send off a sample of urine; and check your blood pressure and weight. You will be asked about how you are coping with the activities of daily living and what arrangements you have made to manage these after the operation. These include shopping, cooking and laundry.

If required, you will be referred to the occupational therapist at this stage. The nurse can also answer any questions you have. You may need to have blood tests, an ECG (heart tracing) and X-rays. The doctor will see you after these tests to examine you and ask you to sign the consent form. Do not hesitate to ask questions at any point.

If any problems are identified the nurse will try to make sure these are sorted out before you come into hospital and will contact your GP if necessary. However, sometimes the operation has to be delayed if you have a number of health problems whilst opinions are taken from other specialists.

The nurse will provide you with a set of knee exercises that must be performed daily until you are admitted for surgery.

It is very important that you plan how you will cope after your operation before you come into hospital.

On admission

From the time of your pre-operative assessment we will be planning your rehabilitation and discharge home. With your help we will assess your individual physical and social needs, involving your family and/or carers if you wish.

When you are admitted to hospital you will be introduced to your nurses who will be caring for you. Please feel free to ask any questions or discuss any worries you have.

You are encouraged to bring some everyday clothes with you to wear after the operation as well as your nightclothes, toiletries, towels and books/magazines. Please bring a supportive pair of slippers (not mules) and any walking aids you are using. You also need to bring all your tablets, creams and inhalers that you are using.

The nurse will check all your details and record your pulse, blood pressure, and temperature. The anaesthetist will visit you to assess your needs and will discuss any past anaesthetic experiences and your medical history with you.

Please tell him if you have any crowns or capped teeth. Post-operative pain relief will also be discussed.

Operation

You will need to have a bath or shower on the morning of your operation and any make-up and nail polish should be removed. The doctor will mark your leg with a marker pen on the side that you are having your new knee. You will be given a hospital theatre gown and asked to remove any jewellery except your wedding ring, which will be taped.

The operation involves an incision at the front of your knee joint. The worn out arthritic parts of your knee are removed and replaced with a metal and plastic artificial joint. This artificial joint is normally fixed in place with bone cement. The wound will be closed with clips or stitches and covered with a dressing.

The post operative period

Immediately after your operation you will be taken to the recovery unit where you will stay until you are well enough to be taken back to the ward. The recovery nurse will monitor you very closely and ensure that you are kept comfortable. When you are ready, you will be taken back to the ward.

It is usual to feel quite sore after this type of operation and it is important that you accept pain relief to reduce your discomfort.

Please tell a nurse at any time if you are in pain.

For the first 24 hours after the operation you:

- May have a patient controlled analgesia (PCA) device to relieve pain. The recovery nurse will teach you how to use this device, helping you to get effective pain relief. Once this device has been removed, pain killing tablets will be given to you.

- If you don't have a patient controlled analgesia device for pain relief you will be offered regular injections for pain relief in the first 24-36 hours. After that you will be given tablets for pain relief. If any pain killers are not controlling your pain tell the nurses.
- Will have an intravenous infusion (drip). The drip will be taken down when you are drinking and eating normally and no longer need intravenous antibiotics. You will be allowed to have sips of water as soon as you feel you want to.
- Will normally have a drainage tube at your knee wound for 24-48 hours. This allows fluids to drain away, and help reduce the amount of swelling around the wound. This will be taken out on the ward about 24 - 48 hours after your operation.

The physiotherapists will encourage you to carry out post operative exercises such as deep breathing and coughing after your anaesthetic, and leg exercises to improve circulation while you are in bed and reduce the risk of blood clots developing. It is also important to start to bend and straighten your knee as soon as possible to prevent any stiffness developing.

- You will have an X-ray and blood test after your operation.
- You will be offered pain relief whilst you are in hospital. If you have any pain, please tell the nurse.

The most important person in your recovery is you.

You can make a difference to the speed of your recovery, independence and mobility by working with the physiotherapist, occupational therapist and nurses.

Rehabilitation

Following your operation, the physiotherapist will teach you exercises to strengthen your muscles, improve the mobility of your joint and help you to regain your independence.

After your operation you can expect your leg to be swollen and painful. However, it is vital to start moving your new knee joint and strengthening your thigh muscles to prevent stiffness and reduce swelling.

Your physiotherapist will visit you daily with exercises and advice.

Day one after surgery:

- You must keep your knee-cap and toes pointing up to the ceiling as this is the best position for your knee.
- You will be taught exercises to help your circulation to prevent blood clots and to begin strengthening your thigh muscles. Please try to do these regularly (see exercises). You will be helped out of bed to take a few steps with a frame and be seated in a chair.

Day two after surgery:

You will continue to practice walking with a frame or crutches.

The sequence to walk is:

1. Walking Aid (frame or crutches) forward
2. Step with the operated leg
3. Step with the non-operated leg
4. Repeat

- You will be encouraged to straighten your knee and place your heel on the ground first as you step forward on to your operated leg.
- DO NOT twist when you turn.
- We will continue to assist you with exercises to strengthen your thigh muscles and increase the range of movement at your knee.

From day three after surgery:

- You will continue with your exercise programme. The exercises must be repeated (without supervision) regularly throughout the day.
- You will practice and progress your walking on to crutches.
- If you have stairs at home you will be taught how to go up and down stairs safely.
- Before you leave hospital your physiotherapy follow up will be arranged. You will be given an appointment to attend the knee group at Beedon House, South Wing Hospital. This should be arranged for the following week. If you do not receive an appointment, please contact the physiotherapy department on 01234 792183.

Exercises

Complete your exercises four times each day. **Please do not attempt any of these exercises until you have been advised to do so.**

1. Breathe in deeply through your nose pushing your ribs out and then breathe out through your mouth. (3 times)
2. Pull your toes up towards you then point away (10 times)
3. Circle your feet first in one direction and then in the opposite direction (10 times)
4. Pull toes up towards you, push knee down and tighten the muscle on the front of your thigh. Hold for five seconds then relax (10 times)



5. Carefully bend your hip and knee up then straighten. A sliding board or plastic bag on the bed may make this easier (10 times)



6. Place a rolled up towel under your knee. Lift your heel off the bed. Hold for five seconds then relax (10 times)



7. Lying on your back, keep your leg straight and lift your leg off the bed, hold for five seconds if able, then slowly relax (10 times)



8. Sitting in a chair. Straighten your knee out in front of you. Hold for five seconds, then relax back down. (10 times)



9. Sitting in a chair. Bend your knee by sliding your heel back as far as possible, relax and bring it forwards (10 times)



Sitting

Choose a chair with armrests and a seat height that is right for you. When going to sit down:

1. Feel the chair with the back of your legs and feel for the arms of the chair with your hands.
2. If it is more comfortable, straighten your operated leg out in front of you and taking your weight on your un-operated leg, lower yourself down gently.



Standing up

1. If it is more comfortable, put your operated leg straight out in front and keep your un-operated leg bent.

2. Slide your bottom forward to the edge of the chair and using the armrests push yourself into a standing position.



If your ankles swell you may need to rest laying down for short periods during the day.

When you are sitting in a chair, vary the position of your leg. It is very important to elevate your leg on a stool regularly.

Take your leg off of the stool and practise bending it regularly so that it doesn't get stiff.

Toilet

Move in a similar way to sitting down and rising from a chair. Use support so that you can push through your arms – a temporary seat raise and/or rails can be arranged via the occupational therapist if required.

Washing

After your operation you will be encouraged to strip wash at first. If you feel unable to stand steadily for long enough then a stool may be useful.



If you have a walk in shower this can be used either standing or sitting on a shower stool if this is suitable for your type of shower tray.

Footwear

Wear a supportive shoe with a low wide heel where possible.

Equipment

Any equipment loaned to you is the property of the hospital and Millbrook Healthcare. It should be returned when you no longer need it, usually after three months. If you are not able to arrange to return the equipment yourself please contact 0870 0601470 to arrange for it to be collected. They are open Monday-Friday 8am to 6pm.

General safety

Try to ensure that your home environment is not too crowded and that you have enough room to manoeuvre around safely with a walking frame or pair of crutches.

Going up and down stairs

Walking upstairs:

1. Stand close to the stairs. Hold onto the handrail with one hand and hold your crutch/crutches with the other hand.
2. Take a step up with your un-operated leg.

3. Then step up with your operated leg.
4. Then bring your crutches up onto the step.

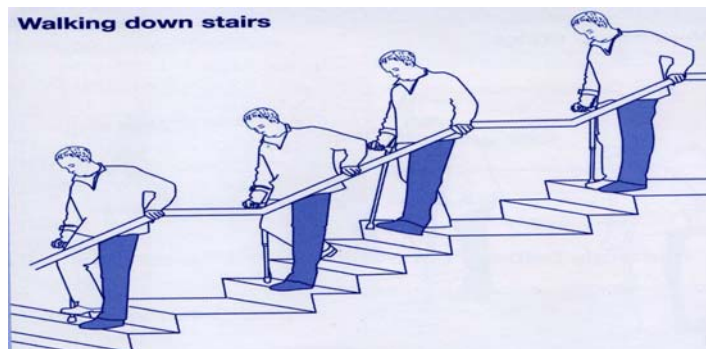
Always go one step at a time.



Walking down stairs:

1. Stand close to the stairs. Hold onto the handrail with one hand and hold your crutch/crutches with the other hand.
2. Put your crutch down on the step.
3. Then take a step down with your operated leg.
4. Then step down with your un-operated leg, onto the same step as your operated leg.

Always go one step at a time.



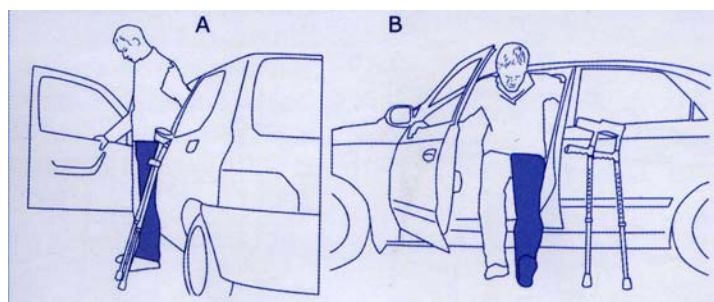
Discharge

You will be in hospital for about two to five days. A district nurse will be arranged for you **IF** your wound needs checking. You will also be sent home with your tablets and a letter for your doctor. If you need extra support then this will be arranged before you go home.

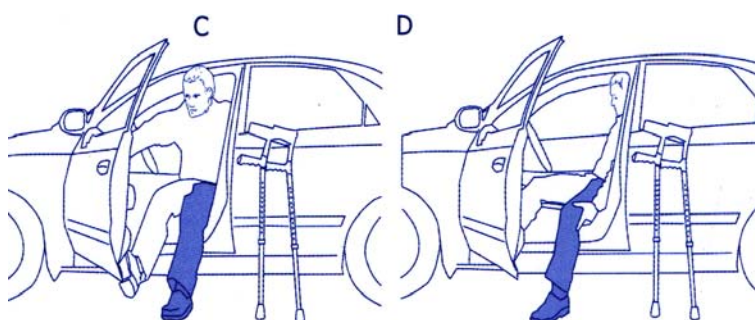
Getting in and out of the car

If your consultant is happy you may go home in a car with relatives or friends. Follow the correct way to get in and out of a car.

Getting into the car



Getting out of the car



When you get home

Continue the exercises that you were taught in hospital.

Walk every hour, gradually increasing the distance daily.

Inside the house continue to use your crutches or sticks until your follow up appointment with the physiotherapist. Usually you will be allowed to progress to using one stick once you are comfortable. Use the stick in the opposite hand to your operated leg.

Looking after yourself

Wound – your wound may still have a dressing on it when you are discharged. If this is the case the ward nurses will refer you to the district nurse so your wound can be checked when you are at home. If your wound has healed the dressings will be removed.

If your wound becomes red and feels hot and swollen after you have gone home contact your consultant.

Bowels – the pain killers you are taking may cause you to feel constipated. Make sure you are eating fruit and vegetables regularly, fibre such as cereal and drinking plenty of fluids. If you are still constipated you may need to contact your GP so he can prescribe something to help.

Swollen ankles – your ankles may be swollen after the operation and this can continue for several months. If you have this problem you may need to rest laying down for short periods during the day. Regular short walks will also help reduce the swelling.

Rest and activity

You should remember that a total knee replacement is a major operation so you may get tired very easily. While you have been in hospital the staff will have done many things for you.

When you first get home you will discover that even doing everyday tasks will be tiring.

Balance rest with gradually increasing exercise, such as taking a rest from time to time, including lying on the bed during the afternoon.

Do not sit in the same chair for hours allowing yourself to get stiff.

You can resume your involvement in sedentary hobbies as soon as you wish. Most active sports or energetic activities should be avoided for three months. If you are in any doubt please discuss it with your surgeon.

Hobbies such as gardening can be resumed gently. Do not do any heavy work such as digging or getting a lawn mower out of storage. Be careful to avoid long periods of standing and plan periods of rest.

Emotions

Although you will probably be pleased to be at home again, you may feel vulnerable once away from the hospital staff.

It is quite common and entirely normal to feel tearful at times and you may feel a little frustrated.

You may find it helpful to talk through these feelings with your family and friends.

Self care

Household tasks

In the kitchen, avoid prolonged standing by using a stool at the sink or cooker. It may help to purchase easily made meals before you go into hospital if you have a freezer. Avoid carrying anything heavy or hot by sliding saucepans along a work surface or use a trolley to get things across a space.

Have frequently used items within easy reach.

Housework

You will need to avoid heavy and strenuous housework for three months after your operation. Do not attempt to use a vacuum cleaner, turn the mattress, wash floors, lift heavy shopping or hang washing on a line to dry.

Driving

Most drivers who have had a new knee find that they feel ready to drive after six weeks.

There are no legal restrictions for a qualified driver to start driving a car after a knee replacement.

Take care when getting in and out of the car (see the advice in this booklet on the safest way to do this)

Avoid prolonged sitting by taking frequent rests on long journeys and getting out of the car to avoid allowing yourself to get stiff

Be sure you feel confident to use the foot pedals without delayed reaction in an emergency stop.

Inform your insurer that you have recently had an operation, as failure to do so may mean you don't have insurance cover. There should not be any changes to your insurance policy.

Returning to work

Every job is different so it is difficult to state exactly how long it will be before you are able to return to work.

Most people need to wait about three months before they go back to work.

If you are concerned, discuss the matter with your surgeon, occupational therapist, or general practitioner.

Many people find it difficult to concentrate when they first return to work.

Finally

This booklet has described the early post operative care needed to look after your new knee replacement.

However, there are some activities that are not recommended after knee replacement such as jarring activities like jogging, jumping, strenuous dancing and contact sports which involve too much stress on the new joint.

Swimming, walking and cycling are recommended and will help you to build up your general strength and stamina. You can expect to feel tired for several weeks after your operation. This is normal and you will gradually gain strength and stamina over the next few months.

British Red Cross

Bedford one call is a care in the home service provided by the British Red Cross. It provides a volunteer service that can make sure you are safe and comfortable at home when you are discharged, and help with practical support, assisting with non-medical general tasks. If you feel this service would be suitable for you, you can contact them on; 0845 602 4064.

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