



# Unicompartmental knee replacement

## (partial knee replacement)

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The evidence used in the preparation of this leaflet is available on request. Please email [patient.information@salisbury.nhs.uk](mailto:patient.information@salisbury.nhs.uk) if you would like a reference list.

# information

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## Driving

You are advised not to drive until 6 weeks after your operation. At this point you need to be confident in your ability to safely control a car and perform an emergency stop if required. Before you drive, inform your insurance company that you have had this operation. This shouldn't change your premium.

Your consultant appointment will usually be about 6 weeks after your operation. You can ask for guidance from your consultant at this appointment.

## Leisure activities

**Swimming:** once your wound is healed, swimming is an excellent exercise. Take care on wet surfaces around the pool and ensure that you can enter and exit the pool safely.

**Kneeling:** avoid kneeling on your knee for the first 3 weeks.

**Golf and cycling** can be resumed at 6 weeks

**Tennis:** can be resumed at 3 months.

Talk to your surgeon or physiotherapist about any favourite sport or activity that you would like to return to.

This booklet is designed to give you an outline of how your rehabilitation will progress as you recover from your unicompartmental Knee Replacement. It is only a guide and will be adapted to meet your individual needs, so the timings may change slightly.

One of the advantages of partial knee replacement is that the recovery is faster and some patients will go home safely on the same day of their surgery but others may require an overnight stay. For all patients, the following are required before you can leave hospital:

- Physiotherapists are happy with your mobility and you are performing your exercises correctly
- Clinical team are happy with the status of your wound and your post-operative progress
- Pain management for home is in place and any tablets have been prescribed.
- You are also required to pass a satisfactory amount of urine prior to discharge. This is because the spinal anaesthetic also affects the nerves controlling your bladder. If you are unable to pass urine (urinary retention) you may require an overnight stay and a urinary catheter to be inserted.

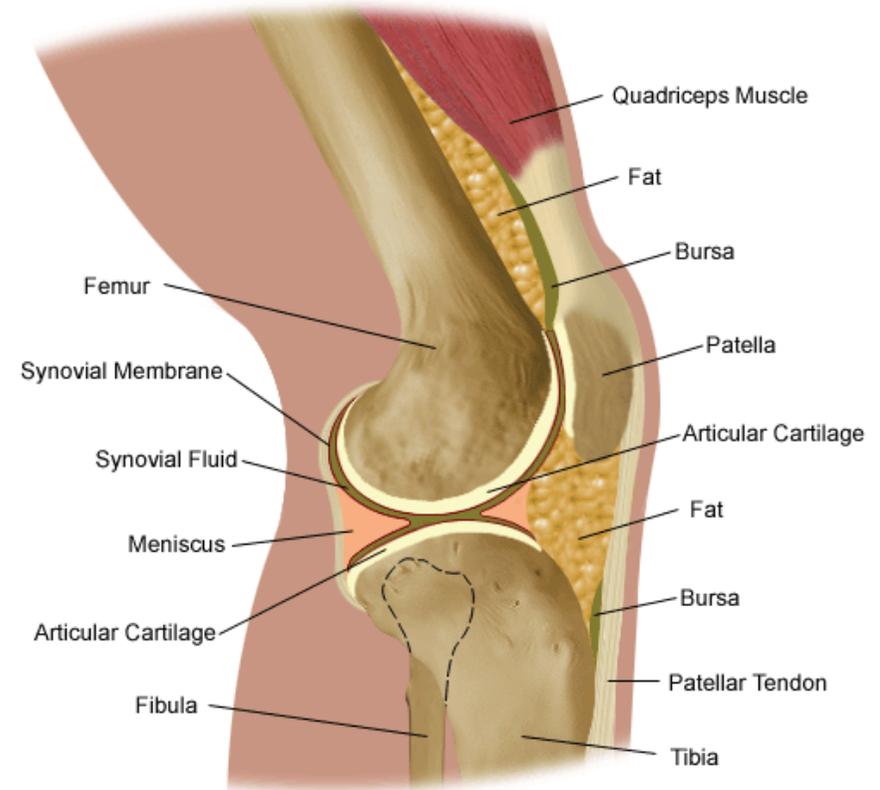
## Walking and exercise

It is very important to continue with the exercises at home. Depending on your progress you may be referred to the Outpatient Physiotherapy department for further help.

Continuing with your exercises will increase the movement and strength in your knee and improve your function.

Complete daily walks at home. Begin with a short distance and gradually increase. Try to do this twice a day. When you feel able, you can start to walk with one crutch. This should be held in the opposite hand to your operated leg. If you limp with one crutch, continue to use two.

## Anatomy of the Knee



This booklet tells you about your knee replacement surgery. It is for people who have decided to have surgery after discussing the options, benefits and possible risks with their consultant. Please keep this booklet for reference before, during and after your hospital stay.



During knee replacement surgery, damaged bone and cartilage is resurfaced with metal and plastic components. In unicompartmental knee replacement (also called “partial” knee replacement) only a portion of the knee is resurfaced. This procedure is an alternative to total knee replacement for patients whose disease is limited to just one area of the knee.

Because a partial knee replacement is done through a smaller incision, patients usually spend less time in the hospital and return to normal activities sooner than total knee replacement patients.

In knee osteoarthritis, the cartilage protecting the bones of the knee slowly wears away. This can occur throughout the knee joint or just in a single area of the knee.

Your knee is divided into three major compartments:

- Medial compartment (the inside part of the knee)
- Lateral compartment (the outside part)
- Patellofemoral compartment (the front of the knee between the kneecap and thighbone)

## Going home

You will go home the day after your operation. You will be seen by your surgeon and physiotherapist in the morning. The nurse looking after you will give you a copy of your discharge summary, and instructions on your wound care. You need to phone your GP practice to organise this.

We aim to discharge you by 11am. If this is not convenient you will be asked to wait in the discharge lounge until you are collected. You will be able to go home in a relative or friend's car.

Ensure that the car seat is pushed back as far as it will go. If you find the seat too low, use a cushion. Always sit on the seat first before lifting your legs into the car. To exit the car, turn on the seat to get both legs out of the car before attempting to stand up.

You can phone the ward at any time for advice.

If you experience any of the following contact your GP or the ward immediately:

- Sudden severe pain in your leg
- Unable to put weight on your leg
- Pain that does not improve after taking analgesia
- You have a red, hot, painful and swollen leg particularly around the wound or in your lower leg.

## Steps and stairs

You will practice going up and down steps or stairs as required, before you are discharged.

### Going up:

1. Start with both feet together at the bottom of the step.
2. Supporting yourself with your crutches put your un-operated leg up on to the first step.
3. Bring your operated leg up to meet it on the step.
4. Bring your crutches up last to the same step.



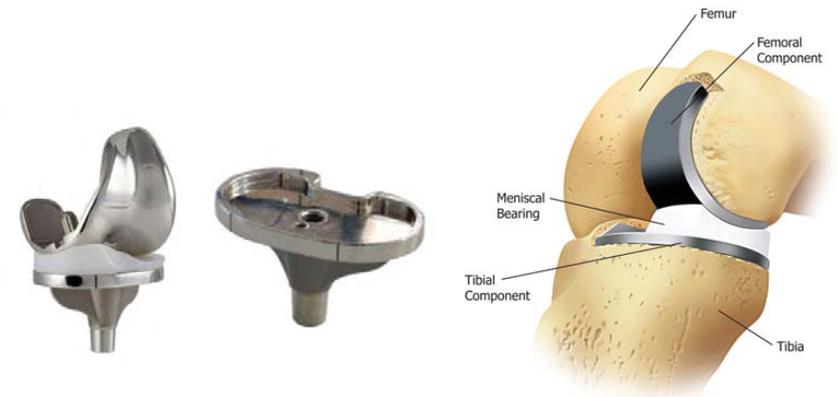
### Going down:

1. Put your crutches down on to the next step.
2. Put your operated leg down on to the same step.
3. Brace your arms, using the crutches for support and step down with your un-operated leg.



Advanced osteoarthritis that is limited to a single compartment may be treated with a unicompartamental knee replacement. During this procedure, the damaged compartment is replaced with metal and plastic. The healthy cartilage and bone, as well as all of the ligaments are preserved.

A unicompartamental knee replacement is made up of three parts. The femoral and tibial components are made of metal with a polyethylene (plastic spacer between them acting like cartilage). The femoral (thigh bone) and tibial (shin bone) parts are fixed into the bone with a special acrylic cement (which is also used in dental surgery). Movement of the joint happens between the spacer and the femoral component.



The decision to have, or not have this operation is yours. If the joint is not replaced, your condition can become worse. Pain may increase and mobility decrease. Alternative treatments such as pain killer and physiotherapy can help to keep as mobile as possible, but these treatments will not stop your condition from worsening. A unicompartamental knee

replacement is one way of treating your problem; improving present levels of pain and mobility.

If you decided that you do not want this operation and would like more information about any alternative treatments that may be available, please ask your GP to help you.

Remember you can change your mind at any time and that you have the right to seek a second opinion.

Students of all professions may be involved in your care. Please speak to a senior member of staff if you do not wish a student to be part of your care.

## Risks and complications

### Specific risks

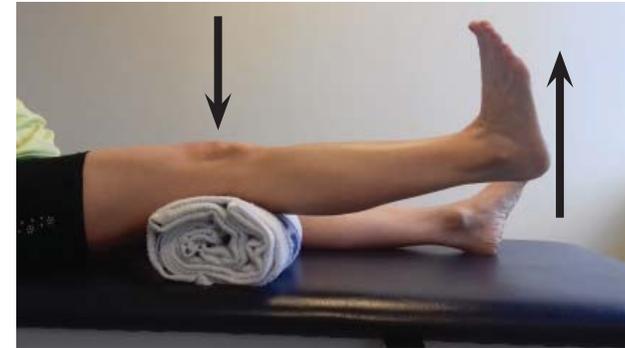
**Pain:** This operation is done to lessen or relieve your long term pain. It is common to experience pain after the operation. If you are in pain, tell staff so that medicines can be given to help lessen the pain. It can take up to 3 months for the pain to settle but in a few cases the pain can persist. If you experience any lasting pain, please inform your surgeon or talk to your GP.

**Loosening:** Loosening of either of the components can occur due to 'wear' debris, either from cement or polyethylene bearing surfaces.

**Wear and Revision:** The components of the unicompartmental knee replacement will require revision after 15-20 years due to wear. Arthritis in the other compartments of your knee may also worsen in this time and you may require revision to a total knee replacement.

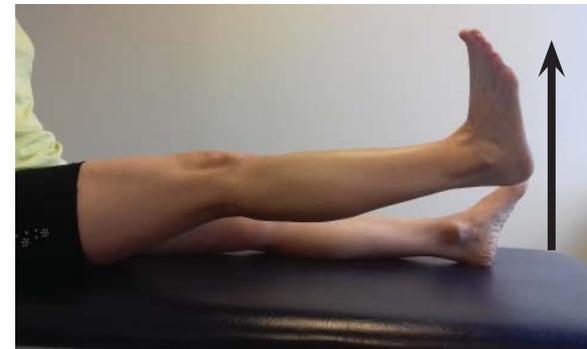
### 3. Inner range quads

Sitting on your bed, put a rolled up towel under your knee. Pull your foot up towards you, push your knee down in to the roll and lift you heel off the bed. Keep your knee in contact with the roll. Hold for 5 seconds and then relax gently. Do not rest with the roll under your knee.



### 4. Straight leg raise

Sitting on your bed, pull your foot up towards you, brace your knee to stop it from bending and lift your straight leg off the bed. Slowly lower your leg back down. You only need to lift your leg a small distance.

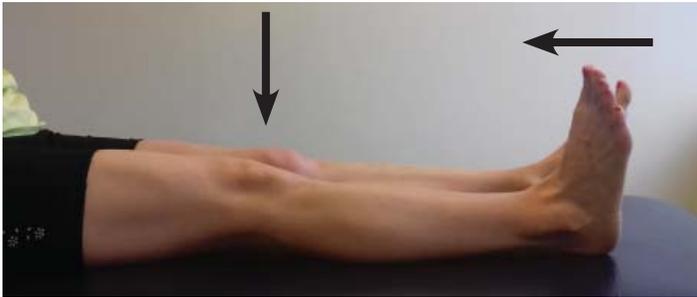


**Knee exercises:** Start these exercises as soon as possible after your operation. It is beneficial to practice them before your operation.

Do these exercises 3-4 times a day and 10 repetitions of each one. It is your responsibility to do these exercises regularly, and to continue them once you are at home.

### 1. Static quads

Sitting on the bed, pull your toes up towards you and push your knee down into the bed. 'Brace' your knee using the muscles on the front of your thigh. Hold for 5 seconds and then relax.



### 2. Knee flexion/extension

Sitting on your bed, bend and straighten your knee. Try to bend your knee as far as you can, pause in this position and then straighten your knee. Keep your kneecap pointing to the ceiling.



**Stiffness:** Post-operative stiffness of the knee joint is rare. Some patients may struggle to regain their movement. Doing your exercises helps to reduce this risk. Referral to Physiotherapy is not routine, but this may be arranged if you are struggling with your exercises.

**Fracture (break or crack):** If you fall or have an accident at any time after you have had a unicompartmental knee replacement, you could fracture (break) the bone around the new joint. This is usually painful and the leg is unable to take any weight. It is normally treated by an operation to fix the fracture.

**Blood clots:** Blood clots in the leg veins are a common complication of knee replacement surgery. Blood clots can form in the deep veins of the legs or pelvis after surgery. It is your body's response to the surgery and because you are less mobile. The risk is greater after surgery, especially bone surgery.

Usually your leg would become swollen, red, hot and painful. If a part of this clot breaks off it is called an embolus. This embolus can travel through blood vessels of the body and lodge in different places. If an embolus travels to the lungs it can cause a pulmonary embolism (also known as a PE). This would cause chest pain, shortness of breath and a cough. This risk of this is less than 1%.

Foot pumps will be provided. These are Velcro boots which inflate periodically around your feet to help with your circulation. Blood thinners such as warfarin, low-molecular-weight heparin can help prevent this problem. Newer blood thinners, such as Apixaban and Rivaroxaban, may also be prescribed by your doctor, depending upon your needs.

Most patients will be given daily injections into their stomach for 2 weeks which helps to prevent the clots from forming. You will be shown how to do this as you will need to continue them after you go home. Starting to walk and moving early is one of the best ways to prevent blood clots from forming.

**Infection:** After surgery an infection may occur in the skin over the wound or deep in the wound. An infection may happen while you are in the hospital or after you go home. You will be given antibiotics before the start of your surgery and these will be continued for about 24 hours afterward to prevent infection.

**Injury to nerves or vessels:** Although it rarely happens, nerves or blood vessels may be injured or stretched during the procedure.

**Stroke or CVA (cerebral vascular accident):** This risk is 1% or 1 in 100.

**Heart attack of MI (myocardial infarction):** The risk for this is 1% or 1 in 100.

## Planning for your operation

You need to be as healthy as possible before major surgery to help aid in a quick recovery. You can improve your general health by:

- Trying to give up smoking completely as smoking delays wound healing.
- Cutting down on the amount of alcohol you drink. Please let us know if you have a problem or, if you need some help with this, speak to your GP.

## Walking

Walking will start on the day of your operation. It is important that you get out of bed and start walking as soon as possible after your operation. A member of staff will be with you the first time you get up.

You will be provided with a walking aid, usually elbow crutches, and shown the pattern for walking:

1. Crutches forward
2. Operated leg forward
3. Un-operated leg forward

## Exercises

Start practicing the exercises before you come in to hospital for your operation.

**Circulation exercises:** These need to be done 10 times each, every hour, whenever you are awake.

1. **Ankles:** Paddle your feet up and down and circle them round and round.
2. **Knees:** With your legs out straight, brace your knees down so that you can feel the muscle tightening on the front of the thigh. Hold for a count of 3 and then relax. You should be able to see your knee caps move slightly.
3. **Bottom:** Clench your buttock muscles together and hold for a count of 3 and then relax.

**Breathing:** Place your hands on the sides of your rib cage. Take a deep breath and feel your ribs expand as you breathe in. Do this 3-4 times every hour.

## Getting out of bed

Move your legs around to the edge of the bed, using your arms for support. Gently lower your legs off the side of the bed bring your body around so that your feet are flat on the floor.

If you feel faint or giddy before standing up, sit for a few minutes on the edge of the bed until you feel better.

## Sitting in a chair

Reverse up to the chair until you feel it against the back of your legs. Reach back to the chair with your arms and sit down slowly, sliding your operated leg forwards as you sit down.

## Washing and dressing

If required, you will be provided with long handled aids to assist your washing and dressing. Bring in comfortable day clothes to wear home. This includes sensible shoes. Your operated leg and foot may be slightly swollen, make sure that the clothes and shoes that you bring with you are not tight fitting.

You need to keep your wound dry until it has healed and your clips are removed, this takes approximately 14 days. A shower cubicle can be used if you are confident. Please be careful on wet surfaces, use slip-resistant mats in your shower or bath. Getting in and out of a bath can be difficult initially.

## Bowels

Constipation can be caused by a variety of issues; changes in diet, reduced mobility and analgesia. Drink plenty of water, and eat a high fibre diet.

- Eating a well-balanced diet. This will help to improve your skin condition and help wound healing. It will also help to prevent constipation.
- Maintaining the correct weight for your height. Losing weight if overweight will enhance quick recovery.
- Making sure your skin is unbroken and free from sores and open areas. This will reduce the possibility of infection both before your operation and after. An infection anywhere in your body will stop you from having your operation.
- If your toenails need treating or if you have any other foot problems visit your chiropodist before you come into hospital.
- Making sure your teeth are in good condition. A tooth infection could cause bacteria to enter your blood stream and infect your new knee joint.
- Walking and exercising within the limit of your pain. Practising the knee exercises shown later in this booklet.
- Do not apply any skin preparation (such as body lotion) on the day of surgery.
- Do not shave the skin at the site of surgery yourself. If needed, the surgical team will do this in theatre.

## Home and help

It is important that you plan now for after your operation. You will be seen by a therapist in clinic after you have consented for your surgery. They will go through the following points with

you and order any equipment that they feel is necessary.

- Think about someone staying with you or you staying with someone after you go home from hospital. This will be the day after your operation.
- Think about personal hygiene as we will ask you to keep your wound dry for the first 2 weeks, or until your clips are removed and your wound has healed. You may find it difficult to access a shower over the bath initially.
- You may need help to look after your pets, especially walking dogs for the initial period.

We advise you to:

- Remove loose rugs, trailing electrical flex or anything else that could cause you to trip, slip or fall.
- Improve poor lighting to avoid these hazards.
- Think about how you will get around your home with sticks or crutches.

## Kitchen

You will go home with sticks or crutches. You will be unable to carry meals from room to room. You will also be unable to drive. If you live alone, plan for when you return home in the following ways:

- Stock your freezer with convenience foods.
- A microwave is useful for heating meals.

**Rehabilitation exercise.** A physical therapist will give you exercises to help maintain your range of motion and restore your strength.

**Doctor visits.** You will continue to see your orthopaedic surgeon for follow-up visits in his or her clinic at regular intervals.

You will most likely resume all of your regular activities of daily living by 6 weeks after surgery.

## Day zero (The same day that you had your operation)

After your operation you will stay in the recovery room until the nurses and doctors are happy that you have recovered from your anaesthetic, you will be encouraged to sit up, eat and drink.

After this, you will be moved to the ward. The physiotherapist will see you there to go through the exercises and to help you get out of bed. You will be encouraged to mobilise for functional tasks such as going to the toilet. Do have a member of staff with you the first time that you mobilise.

## Getting into bed

Reverse up to the bed until you feel it against the back of your legs. Reach back to the bed with your arms and sit down slowly. Sitting on the bed, move yourself straight back using your arms. Gently ease yourself round until you are comfortable and your legs are on the bed.

- Do not kneel on you knee until your wound is healed and the clips have been removed.
- Avoid twisting on your operated leg. When turning, always lift each foot alternately as if marching on the spot.

## Rehabilitation

Hospital discharge: Partial knee replacement patients usually experience less postoperative pain, less swelling, and have easier rehabilitation than patients undergoing total knee replacement. In most cases, patients go home 1 to 3 days after the operation. Some patients go home the day of the surgery.

**Pain management:** After surgery, you will feel some pain, but your surgeon and nurses will make every effort to help you feel as comfortable as possible.

Many types of medicines are available to help control pain, including opioids, non-steroidal anti-inflammatory drugs (NSAIDs), and local anaesthetics. Treating pain with medication can help you feel more comfortable, which will help your body heal and recover from surgery faster.

Opioids can provide excellent pain relief; however, they are a narcotic and can be addictive. It is important to use opioids only as directed by your doctor. You should stop taking these medications as soon as your pain starts to improve.

**Weight bearing:** You will begin putting weight on your knee immediately after surgery. You may need crutches for the first few weeks until you become comfortable enough to walk without assistance.

## Before your hospital stay

After you and your surgeon have decided that you need an operation, you will be asked to attend a Pre-operative Assessment Clinic (POAC). You will have several tests.

These include:

- Blood tests
- ECG (heart trace)
- Urine specimen
- MRSA (Methicillin Resistant Staphylococcus Aureus) swabs. If this is positive, your operation will be postponed until you have been successfully treated.

These tests will give the staff information about you. You will see a nurse and /or a doctor who will make sure you are fit for surgery. This appointment will also be another opportunity for you to discuss the operation and all that is involved and to ask any questions. If for any reason you are not fit for surgery, your operation will be postponed until you have received treatment.

## Coming into hospital

Things you need to do:

- Make sure you have read your admission letter so that you come to the right place on the right day and at the right time.
- Do not bring any towels or face cloths. They will be provided for you by the hospital. This is to help reduce the risk of possible infections.
- Bring sensible slippers with proper non-slip soles (not

flip-flops, backless or fluffy mules!), suitable nightwear and dressing gown. Also bring in some easy to wear day clothes for when you are up and about.

- Bring in all the tablets you are currently taking and a list of when and how many you take.
- Leave jewellery, large amounts of money and any valuables at home.

## The operation

You will be told when to stop eating and drinking.

You will see an anaesthetist and the surgeon before you go to theatre. The leg that is being operated on will be marked with a marker pen.

The operation can take about an hour. It can be done under a general anaesthetic (you will be asleep) or a spinal anaesthetic (this gives you no feeling in your legs temporarily). You can have sedation with a spinal anaesthetic so that you will not be aware of the operation. There are separate leaflets about anaesthetics, which are available on request.

You may be given extra fluids through an intravenous (IV) drip during the operation and afterwards back on the ward. The drip will be removed when you no longer need it.

## Wound site

Your wound will be down the front of your knee. The area around your knee will feel sore in the days after your operation.

## Swelling

It is common for the operated leg to become swollen. This will increase during the day as you are moving around, and will often reduce overnight, or when you have the leg elevated.

When you are at home, you can use ice packs to help reduce the swelling. A packet of frozen peas is ideal but should be wrapped in a cloth to prevent ice burns. Only leave the ice pack on for a maximum of 15 minutes at a time. (Do not eat the food that has been defrosted and refrozen as this can lead to stomach upsets).

The swelling can vary from day to day. Any remaining swelling and bruising will resolve within the first few weeks.

## Food and drink

After your operation you will be able to eat and drink normally. It is important to drink plenty of fluids.

## Knee X-ray

You will have an X-ray of your knee after your surgery.

## Blood tests

You will have a blood test after your operation, to make sure that you are not anaemic and that your vital organs are functioning well.

## Protecting your new knee

It is important to work hard at regaining the movement and strength of your knee. You can move the knee freely. Work at the exercises in this booklet.