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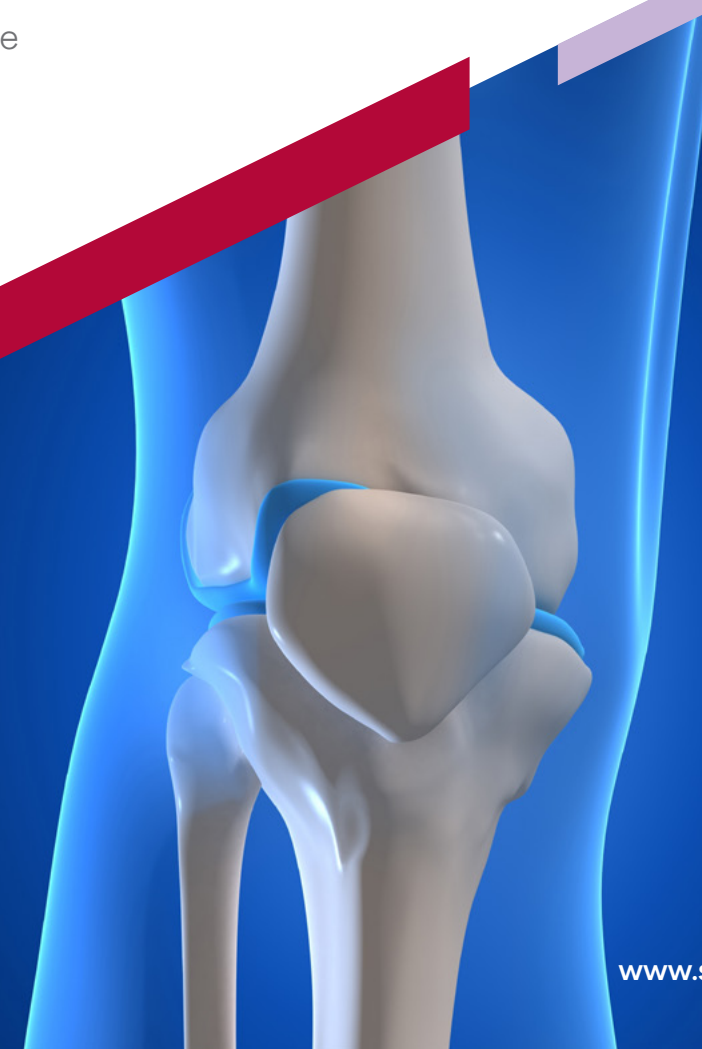
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A Patient's Guide to Knee Replacement

Ireland's Leading Private
Orthopaedic Hospital



WELCOME TO IRELAND'S LEADING PRIVATE ORTHOPAEDIC HOSPITAL



ACCREDITATION

The UPMC Sports Surgery Clinic has been awarded accreditation from the Joint Commission International (JCI), the worldwide leader in improving quality in health care. This award underpins our commitment to monitoring the quality of patient care, ensuring a safe environment and continually working to reduce risks to patients and staff.

The accreditation process stimulates continuous, systematic improvements in an organisation's performance and the outcomes of patient care by applying internationally agreed standards which are adapted to local needs and which are continuously monitored.

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This booklet has been designed to give you some information to help you prepare for knee replacement surgery. Treatment is always planned on an individual basis so your experiences may differ slightly from the information given.

The staff are here to help and answer any questions you may have, therefore please do not hesitate to ask at any time.

Scan this code
to view a video
on every stage
of your Knee
Replacement
Journey



Why do I need a knee replacement?

The most common reason for knee replacement surgery is Osteoarthritis. Osteoarthritis simply means that the protective cartilage of the knee has worn out, resulting in the thigh bone and shin bone rubbing together. As you know, this is very painful and stops you being able to move your knees as you once did.

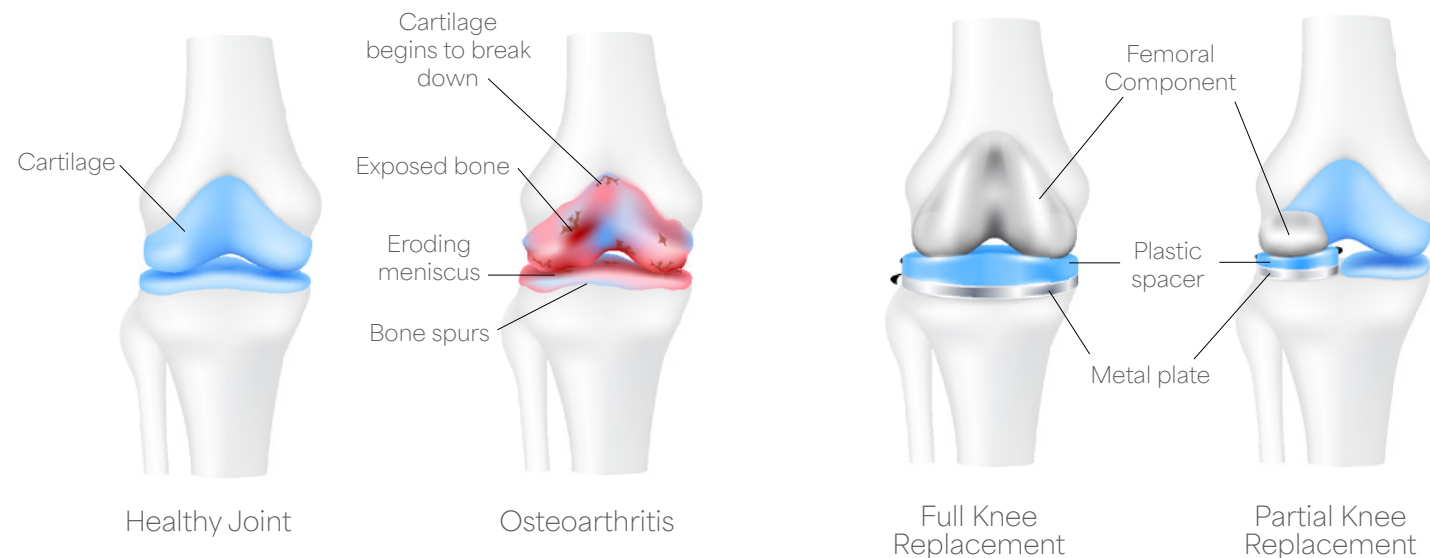
Bilateral Knee Replacement surgery - if you have arthritis in both knee's you may have both knee's operated on at the same

Types of Knee Replacements

There are two types of knee replacements, depending on the patient and the extent of wear and tear on the knee.

Total Knee Replacement (TKR): The end of the femur (thigh bone) and the top of the tibia (shin bone) are replaced with new metal components.

Partial Knee Replacement: A specific part of the knee joint is affected by arthritis and only part of the knee joint is replaced.



The Pre-Assessment Clinic

All patients scheduled for joint surgery must attend the pre-assessment clinic (PAC) 3-4 weeks before proposed surgery.

The PAC is a comprehensive medical assessment to ensure you are as fit and healthy as possible for your surgery and anaesthetic. This means you are less likely to have your surgery delayed or cancelled on the day, as any problems that are discovered are dealt with prior to admission.

At the clinic you will be seen by a nurse and a doctor. A number of tests will be carried out, they will include the following:

- + Electrocardiogram (ECG) which is a non-invasive heart investigation
- + Blood pressure and heart rate
- + Methicillin resistant staphylococcus aureus (MRSA) screening. This includes swabs from your nose, throat and groin. This is a bacteria resistant to some antibiotics
- + Blood tests
- + Blood type and screen. This is done in case we need to give a blood transfusion during or after your operation
- + Body mass index (BMI)

The PAC visit will take approximately 1 - 2 hours.

Please ensure that you bring the following with you on the day of PAC:

- + All medication in their original labelled containers that you are currently taking. It is important that the medication is not repackaged into a weekly pill dispenser/pill box.
- + Relevant X-rays, MRI, CT including any chest X-rays taken within the last three months or relevant joint X-rays taken within the last six months.
- + Please bring any results or reports from any relevant specialists (ECG, Echo, angiogram results)
- + Please ensure that your first name and date of birth is as it appears on your birth certificate.
- + Please bring the contact details of your GP and any other consultants or specialists you are currently seeing.

Preparation for surgery

- Physiotherapy, Prehabilitation

Before your surgery it is important to maintain an active lifestyle so that the muscles around your knee stay strong. Research has shown that patients who complete an exercise program before their surgery have a quicker recovery than those who don't.

Knowing what to expect, practicing drills on early post-operation management and exercising before your surgery will help you increase your confidence and ability to exercise after your operation.

We recommend booking an appointment with your local physiotherapist before your surgery. Alternatively you can book a pre-operative session with our team of physiotherapist in one of our UPMC Sports Medicine sites.



The Hospital Stay

WHAT HAPPENS ON THE DAY OF THE OPERATION?

You will be admitted into UPMC SSC the morning of your operation.

On admission, you will check in at the reception area and be asked to confirm your details for your medical file. A member of the admission staff will accompany you to the Inpatient Ward or the Day of Surgery Admission Lounge (DOSAL) where you will be greeted by the nursing staff. The nursing staff will check your weight, height, temperature, blood pressure, pulse and respiratory rate. The nursing staff will also update and complete the nursing assessment that was started in PAC. You will also see other members of the team at this time. If you have any questions do not hesitate to ask a member of staff.



WHAT DO I NEED TO BRING INTO HOSPITAL?

- + If you take medications on a regular basis, please bring these with you in their original packaging as we will use them during your stay. It is important that the medication is not repackaged into a weekly pill dispenser/pill.
- + Please remember to remove false nails/long term nail varnish before coming into UPMC SSC.
- + We advise that you bring nightwear, a dressing gown, slippers (flat, closed heel slippers) or walking shoes, reading glasses and toiletries. You will also need some day wear clothes.
- + We advise that you do not bring valuables into the hospital with you. You may keep your wedding ring on (which will be covered with tape) when you go to theatre but this is the only jewellery you will be allowed.

WHAT HAPPENS BEFORE MY OPERATION?

- + Your consultant will draw an arrow on your knee to indicate which one is being operated on.
- + You cannot eat or drink anything for at least 4 hours before your operation, so you will usually be 'Nil by Mouth' from 12 midnight (for a morning operation) or 6am (for an afternoon operation). The nursing staff will remind you about this. This includes chewing gum.
- + You will be given a theatre gown to change into. You will be asked to remove nail polish, make up and jewellery, apart from a wedding band which can be taped over.
- + You will be wearing one white stocking, which is called a TED stocking, on the opposite leg i.e. the leg you are not having your operation on. The stocking is applied to help improve the circulation in your legs and to reduce the risk of getting a blood clot. A stocking will be applied to your operation leg after your surgery. If you are having bilateral knee surgery, the stockings will be applied after your surgery.
- + The anaesthetist, who is the doctor that will be administering your anaesthetic, will talk to you before your operation. He / she will talk to you about your general health and any previous anaesthetics. He/she will check your lab tests and all other relevant tests and letters from other specialists. They will then advise you of the safest anaesthetic for you with regard to the operation you are having done.

Anaesthetic Information:

- + Spinal anaesthetics are the most commonly used anaesthetic. An injection is carefully placed in the lower back area, this causes your legs to become numb. They stay numb all the way through the surgery and come back to normal later. While you are in the operating theatre your Anaesthetist will give you other medication, which will relax and sedate you. You are very unlikely to hear or see any part of the surgery.
- + General Anaesthetics are less commonly used for joint replacement surgery. However if your anaesthetist recommends that you have a general anaesthetic, you will receive medication via the intravenous cannula in your hand/arm, then you will drift off to sleep and wake up in the recovery room when the surgery is completed.
- + You will walk to the theatre area accompanied by a nurse. In the reception area the theatre staff will check your details and ask you several details such as when you last ate or drank and which knee is being operated on. This is all quite normal, as we like to check these details several times.

- + From the reception area you will be walked into the anaesthetic room where you will have your anaesthetic. Once you have had your anaesthetic you will be transferred into the operating theatre.
- + The duration of the operation is normally between one - two hours, depending on the surgery you are having. However you will be off the ward longer than this because you will need time to have the anaesthetic before the operation and to recover after the operation.
- + To enhance your recovery and to minimise the time spent in hospital you will be given various medications to treat pain. Your anaesthetist will prescribe medications which suit you. These will mostly be given to you to swallow in tablet form.

WHAT HAPPENS AFTER THE OPERATION?

- + You will be wheeled on a bed from the operating theatre into the recovery room where you will be closely monitored by the nursing staff. The nurses will check that you are recovering from your anaesthetic by checking your blood pressure, pulse and breathing rate. Once they have assessed that you are recovered enough you will be transferred back to the ward on your bed.
- + You will have oxygen delivered either through a mask on over your nose and mouth or through a small double pronged tube which

sits at the nasal passages and you will have a bag of fluid running through a tube into one of your veins.

- + A variety of pain medications are used post op, many are oral medications. Despite being oral (given by mouth) they are strong enough to give good pain relief after surgery.
- + There may be a drain based on one side of your wound to drain any excess blood or fluid from your wound that could cause delayed healing of the wound. The excess blood/fluid is drained into a collection bottle attached to the drain. The drain will be removed the following day.
- + You may have a bulky/thick bandage on your operated leg from the middle of your thigh to the middle of your calf. This bandage will stay in place for about 24 hours after your surgery.
- + Once you are back in the ward the nurses will continue to monitor you. You will have your blood pressure, pulse etc., checked regularly.
- + You will start taking sips of water as soon as you come back to the ward and gradually you will be allowed to eat and drink as normal. Many people feel sick after the surgery and this can be due to the anaesthetic and medication that you were given during the operation.

- + If you need to pass water or have your bowels opened then the nurse will assist you in using a bedpan, as you will not be able to walk to the bathroom just yet.
- + Starting from the night of your operation you may be given an injection into your stomach area. This will be given to you once a day for 3 days after your operation. This is given to help keep your blood slightly thin and help reduce the risk of developing clots. You will also be prescribed medicine for clot prevention on discharge.
- + You will have foot pumps attached to both feet to aid circulation. These foot pumps cause a light squeeze at the bottom of your feet which in turn aid the circulation in your calves. The foot pumps are usually removed during the day once you are mobilising but should be worn at night.



THIS SECTION OUTLINES THE STAGES YOU HAVE TO COMPLETE BEFORE YOU GO HOME.
You will be in hospital for **1-3 nights**, depending on the procedure you are having.

STAGE 1

- + The nursing staff will help you to have a wash in the bed as you may not have been out of bed.
- + The physiotherapist will assist you in getting out of bed and taking a few steps with the assistance of crutches. You will also sit in a chair. The physiotherapist will assist you in doing the exercises programme. Depending on how well you progress this may be the day of surgery or the following day.
- + The dressing on your operated knee will be reduced and if present, the drain removed.
- + A TED stocking will be applied to the operated leg(s).

STAGE 2

- + The physiotherapist will continue to assess how you are doing and help you to progress with your exercises and mobility.
- + You may have a blood sample taken to check your blood count.
- + If you have not had an X-ray in the recovery room then you will have an X-ray taken of your knee in the X-ray department. A member of staff will take you to the X-ray department.

STAGE 3

- + You will be walking with crutches under guidance from the physiotherapist.
- + Your prescription will be arranged by the doctor.
- + The physiotherapist will practice the stairs with you.
- + Transport arrangements will be finalised. You will be asked to arrange for a relative or friend to collect you by car.
- + On the day of discharge arrange to be collected between **9.00am-9.30am**.

STAGE 4

- + You will be discharged home. The nursing staff will go through with you the prescription that you can fill at any pharmacy. If you have any questions with your medicines then please ask the nurses who will be able to help you. Do not forget to take your walking aids with you.
- + Instructions will be given on how to care for your wound.
- + You will be sent an appointment by your consultants secretary with the date of your follow up outpatient appointment on it, (usually between 2-8 weeks after your surgery).

Please Note: UPMC SSC does not have a dispensing pharmacy.

WHAT DOES POST-OPERATIVE PHYSIOTHERAPY INVOLVE?

While in hospital you will be involved in exercising, mobility training and stairs training. Therefore, it is useful to bring the following items with you:

- + Comfortable but supportive footwear, e.g. laced or velcro flat shoes or slippers with a closed heel. Ensure these are not very tight fitting as your ankle/foot may swell up after surgery.
- + Shorts or loose bottoms.

You will be seen by the physiotherapy team either on the day of surgery or the following day. During your stay they will:

- + Help you with bed transfers
- + Teach you how to walk with crutches (or a Zimmer frame in some cases)
- + Guide you through an exercise program
- + Practice stairs with you

You will be allowed to sit out on a chair if you can tolerate it on the day after the operation.

You will be able to either get up and walk on the day of your operation or the following day. Generally you can put as much weight down through the operative limb as is comfortable (unless otherwise advised by your surgeon). You will be required to use two elbow crutches.

You will be required to climb the stairs with crutches before being discharged from hospital.

The physiotherapist will work with you in hospital until you are comfortable transferring to and from a bed and chair, are confident performing your home exercises and can mobilise safely with your crutches on the flat and on stairs.

Early movement of your new joint is essential to support your recovery and help reduce pain and stiffness. It is important to follow the exercise program on a regular basis as directed by your physiotherapist.

Rehabilitation Exercises

Perform the exercises outlined 3 times daily, repeating each exercise 10 times. This will help minimise muscle wastage and assist in regaining range of movement in the early stages after your surgery.

1 ANKLE EXERCISES

Move the ankle up and down and rotate in a circular motion. Continue for approx. 30 seconds every waking hour.



2 BUTTOCK EXERCISE

Tighten the muscles in your buttocks and hold for 10 seconds. Repeat 10 times.



3 KNEE STRAIGHTENING & STRENGTHENING

Push the back of the knee down into the bed. This will help to activate the (quadriceps/thigh) muscles around the knee. Hold for 5 seconds. Repeat 10 times.



4 LEG SLIDES

Bend your unoperated leg. Push the back of the operated knee down into the bed, pull the toes up towards you and contract the quadriceps (thigh) muscles. Keeping the knee straight, slide the leg out 6 inches, keeping your leg on the bed, and slide back in. Repeat 10 times.



5 STRAIGHT LEG RAISE

Bend your unoperated leg. Push the back of the operated knee down into the bed and contract the quadriceps (thigh) muscles. Keeping the knee straight, lift the whole leg about 6 inches off the bed as demonstrated. Repeat 10 times. Aim to hold for 5 seconds.



6 KNEE BENDS

Bend the knee gently and hold for 5 seconds. You may use a towel anchored around the thigh to aid the movement. Repeat 10 times.



7 ACTIVE KNEE FLEXION (SITTING)

Sitting comfortably, slide the heel of your operated leg back towards the chair. Hold this position for 5 seconds and relax. Repeat 10 times.



8 ASSISTED KNEE BEND

Sitting comfortably, use your good leg in front of your operated leg to gently slide your operated leg back towards the chair. Hold this position for 5 seconds and relax. Repeat 10 times. Gently slide your operated leg back towards the chair. Hold this position and slide your buttocks forward on the chair. Hold for 5 seconds and relax. Repeat 10 times.



9 KNEE EXTENSIONS

Sitting comfortably, with your knee flexed, keeping your thigh on the chair, slowly straighten your knee aiming to have the leg as straight as possible. You should tighten your quadriceps muscle throughout this movement. Hold for 5 seconds and relax. Repeat 10 times.



10 HAMSTRING STRETCH

Sitting at the edge of your chair, gently straighten your operated leg out in front. Keeping your back straight, slowly lean forward from your hips until you feel a stretching sensation in the back of your thigh/knee. Hold for 15 seconds and relax. Repeat 5 times.



11 CALF STRETCH

Stand at arm's length from the wall. Place your operated foot behind your good foot, in a walking position. Slowly bend the front leg forward, keeping your back knee straight and your back heel on the floor. Hold your back straight and your hips forward. Don't rotate your feet inward or outward. Hold for 15 seconds. Repeat 5 times.



It is important the muscles at the back of your operated leg do not become tight after your surgery.

This can restrict your range of movement.

USING THE STAIRS WITH CRUTCHES

SINGLE KNEE REPLACEMENT

GOING UP

Lead with the non-operated leg
Followed by the crutch
Then bring up the operated leg

COMING DOWN

Lead with the crutch
Step down with the operated leg
Followed by the non-operated leg

BILATERAL KNEE REPLACEMENT

GOING UP

Lead with the stronger leg
Followed by the crutch
Then bring up your weaker leg

COMING DOWN

Lead with the crutch
Step Down with your weaker leg
Followed by your stronger leg



Scan this code to view the rehabilitation exercises



Continuing your rehabilitation after discharge

In order to progress with your rehabilitation we recommend that you organise an appointment with a chartered physiotherapist as guided by your physiotherapist or consultant.

You can either attend UPMC SSC, one of our other UPMC Sports Medicine sites or a local physiotherapist. On discharge from UPMC SSC you will receive a referral letter and rehabilitation protocol to give to your physiotherapist. This will inform the physiotherapist of your surgery and give guidelines for your short and long term rehabilitation. It is likely that you will require follow up physiotherapy for several months after your operation.

Convalescence

The majority of patients who have knee replacement surgery go home from UPMC SSC, however some patients feel that they need further care in convalescence.

If you feel that you need convalescence following your knee replacement you will need to arrange this yourself with a private rehabilitation unit before coming into UPMC SSC.



What happens when I go home?

- + It is common to experience pain, discomfort and stiffness in the knee for a number of weeks, this will settle over time. You will have been provided with a prescription for painkillers on discharge. Take the painkillers regularly as this will help manage your pain.
- + Painkillers and reduced mobility can make you constipated therefore it is important that you drink fluids while in hospital and when you get home. The recommended amount to drink daily is 2 litres, which is about 8 glasses. Water is one of the best things that you can take. The nursing staff can give you some mild laxatives if you need them whilst you are in hospital and you may also be prescribed some to take home with you.
- + We advise that you keep the TED stockings on for 6 weeks and remove daily. The reason for this is so that you can wash and moisturise your legs, as the stockings tend to dry the skin on your legs quite quickly. It's important to take the medicine you are prescribed for clot prevention as specified on your discharge prescription.
- + Your wound will have been closed with either glue, dissolvable sutures, or clips and sutures. You'll receive specific instructions regarding your wound before you leave. The UPMC SSC has a Wound Clinic, run by nursing staff where you can receive care and guidance for anything related to your wound. Appointments are necessary and can be scheduled in advance.
- + It is normal for your leg/knee to be quite bruised after the operation. This will fade in time. You're

encouraged to ice the knee at least 6 times a day for 6 weeks with the IceBand knee we provide you with during your stay.

- + You should not undertake any long haul flights between for a period of 6 to 12 weeks after your operation as you are at increased risk of blood clot in your leg veins. Your consultant will advise you on this.
- + The leg takes time to adapt to the knee replacement and it is quite common to experience discomfort around the knee for up to 6 months after the surgery. This is not as painful as the arthritis you had and is usually relieved by rest or a mild pain killer. Some patients describe a feeling of numbness around the knee, where the nerves, which are cut during the operation, do not re-join. This does not affect the strength of the knee at all. Not all these events are experienced by every patient but if they happen to you they are part of the normal recovery from the operation.
- + Most patients find it too uncomfortable to kneel on their knee replacement and you are not encouraged to kneel regularly as the scar can be tender. Occasional kneeling (once or twice a week) for short periods is all right if you can tolerate it but only after your 6 weeks outpatient appointment after the operation.

Scan this code to view the Post-Op Knee Replacement Patient Information Video



Our goal is to offer patients a single lifetime location for all their musculoskeletal requirements from initial diagnosis to return to normal daily activities and sport.



111 BED PRIVATE HOSPITAL



7 ULTRA CLEAN AIR OPERATING THEATRES



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