



Oxford University Hospitals
NHS Foundation Trust

Knee Replacement

**Information about your
operation and recovery**



You have been given this booklet because you have recently had knee replacement surgery. The following information is about starting your recovery in hospital and continuing it at home.

Knee Replacement Surgery

Knee replacement surgery is designed to replace the worn-out surfaces in your knee, thereby relieving pain and improving function. You will have had a half knee replacement (a unicompartmental knee) if only part of your knee was worn-out or a full knee replacement (a total knee) if the whole of your knee was affected. With these operations two pieces of metal are used to resurface the end of your thigh bone (femur) and the top of your shin bone (tibia). In between the metal pieces is a plastic spacer. If your patella (kneecap) was mainly affected, you will have had a patellofemoral replacement. With this operation, the groove at the end of your femur that your kneecap sits in is resurfaced by a piece of metal. All these operations usually take about one hour.

Specially tailored anaesthetic, pain management and rehabilitation packages now allow you to get out of bed and go home on the day of surgery, or within one or two days. If required, you will have physiotherapy as an out-patient to continue your recovery.

Recovery from this operation will take from two to six months depending on the level of activity you are hoping for. However, you may find that your knee continues to improve for up to two years following surgery but that most of your recovery takes place in the first six months.

Your physiotherapist will go through the exercises in this booklet with you before you go home and will be happy to answer any questions you may have.



Unicompartmental Knee Replacement

Unicompartmental Knee Replacement X-ray



Total Knee Replacement

Total Knee Replacement X-ray





Patellofemoral Replacement

Patellofemoral
Replacement X-ray



General Advice

- Put as much weight as you find comfortable on your operated leg unless your surgeon tells you not to.
- At first, you may find simple daily activities tiring. Many people find it easier to have some ready to cook meals and ask friends and family to help for a few weeks after surgery, to reduce the amount that you must do.
- If you have concerns about how you will manage daily activities when you get home, please let a physiotherapist or nurse know, as we can arrange for you to see an occupational therapist.

Getting Active

- For the first 5 days after your operation, potter around inside your home using your walking aid. This will help to reduce the risk of blood clots and joint stiffness.
- Perform your knee exercises regularly and increase as you feel able or advised by your physiotherapist.
- After about a week, gradually increase your walking distance and activity as you feel able.
- As you increase your activities, your knee may ache more. This is normal and will lessen in the coming months.
- Knee pain and swelling may continue to be a problem as your activities increase. If so, cut down on what you do until they reduce. Then gradually increase again.

Report severe pain, excessive swelling, or any wound concerns to your GP

Pain

- Pain following surgery will be different from your knee pain before surgery.
- It is normal for your knee to be very painful after a knee replacement. This will gradually lessen in the coming months.
- In hospital, take all the pain medication offered to you. This will allow you to get up more comfortably and do your exercises.

At home it is important to take all the pain and anti-sickness medication, as well as the stomach protecting tablets and laxatives you have been prescribed. Together, they will all help your recovery.

Swelling

- Swelling around your knee is normal and may continue for over a year after your operation. Excessive swelling may slow your recovery as it can prevent your knee bending and your thigh muscles working effectively.
- The best way to reduce knee swelling is to elevate your whole leg. For the first few weeks after surgery go to bed for an hour or so once or twice a day. Raise your leg up on two or three pillows. Keep your knee straight. Do not rest with your knee bent as this makes it more likely to seize up and may result in it not fully straightening in the long term.



- Ice can help reduce swelling; two or three times a day wrap a bag of frozen peas or crushed ice in a pillowcase and put it on your knee for 10-15 minutes only. It should feel very cold but be aware that ice can burn, so check it regularly and remove it if you feel a strong burning sensation.

Rehabilitation

The following information is a guide to your rehabilitation in hospital and at home. The physiotherapists will show you the exercises you need to do whilst in hospital and after you go home. It is important to increase the bend in your knee slowly and gently and strengthen the muscles around your knee.

It is up to you, to get the movement and strength back in your knee.

General Advice on Exercising

Take all your pain medications regularly as prescribed.

- Start your exercises about 30 minutes after taking your pain medications.
- Remember that a small number of correctly performed exercises are much better than many incorrect exercises.
- Do some of the listed exercises every few hours, making sure you do a variety of different exercises during the day.
- If you feel you are struggling to do any exercise, stop and rest. Then try it again a few hours later or the next day.
- Little and often is best. Aim to do some exercises 2-3 times a day. Start with 5 repetitions for each exercise and gradually increase the number as you feel able.

Walking

Points to aim for when walking

- Footwear: should be supportive, ideally a shoe with a back.
- Step length: make sure all steps are of equal length.
- Rhythm: spend the same length of time on each leg.
- Stepping: put your heel to the ground first.
- Turning around: take care not to twist your knee in the first 6 weeks. Step around taking small steps.

By the time you are ready to go home, you will be able to walk safely on crutches, sticks or a walking frame. If required, you will have been shown how to go up and down the stairs or a step using your walking aid.

Don't stop using your walking aid too quickly, as it is better to walk well with an aid than to limp without it. You may need to continue to use your walking aid for about 4 to 6 weeks after your operation. After a few weeks, if you are still using two crutches or sticks, you may find you are able to progress to one crutch or stick, held in the opposite hand to your operated knee.

Stairs

It is best to use the banister when using stairs. Hold the banister with one hand and a crutch in the other hand. You will need the spare crutch when you get upstairs so hold it horizontally in a 'T' shape against the handle of the crutch you are using. Remember to carry the spare crutch on the outside of the handle so that if you do drop it, it won't trip you up or hit your legs.



Going Up Stairs

- Stand close to the banister
- Hold the banister rail with one hand
- Step your unoperated (good) leg up onto the first step
- Bring your operated (bad) leg up beside it
- Place your crutch on the same stair as your feet



Going Down Stairs

- Stand close to the banister
- Hold the banister rail with one hand
- Put your crutch 1 stair down
- Step your operated (bad) leg down onto the same stair as your crutch
- Bring your unoperated (good) leg down beside it



Dressings and Wound Care

You will need to make an appointment to have your wound checked and your dressing removed by the practice nurse at your GP's surgery. Before you leave hospital, you will be told when to make this appointment. It will be between 2-3 weeks after your operation. Keep your dressing intact and your wound dry until this visit. The dressing is water resistant but please keep it as clean and dry as possible. You can take a brief shower but do not soak the dressing.

If you have a shower, make sure you have a non-slip surface to stand on, both in and out of the shower.

If you notice any ooze coming through your dressing or have any concerns about your wound, please contact your GP

Exercises

Perform exercises 1 and 2 at least twice a day, 10 times each or as you find comfortable. Little and often is best.

Exercise 1. Foot and Ankle Exercises

These will improve the circulation in your legs while you are less active.

- Lie on your bed and move both feet up and down by pointing your toes and ankles towards you then away from you.



Exercise 2. Static Quadriceps Contraction

Your quadriceps are the muscles at the front of your thigh. This exercise starts to get them working again gently after your operation.

- Sit or lie with your operated leg stretched straight out in front of you.
- Tighten your thigh muscles by pulling your toes up towards you and pushing the back of your knee down into the bed.
- Hold for 5 seconds.
- Relax completely.



Continue exercises 1 and 2 and gradually add in exercises 3-9 as you are able. These exercises will gradually increase the bend in your knee and strengthen the muscles. Start by doing each exercise 10 times, or as many as comfort allows, but no more than 20 times. Do not do all the exercises at once. You should aim to do some of the exercises every 2 hours.

Exercise 3. Knee Bending when Lying

This exercise will help to increase the bend in your knee.

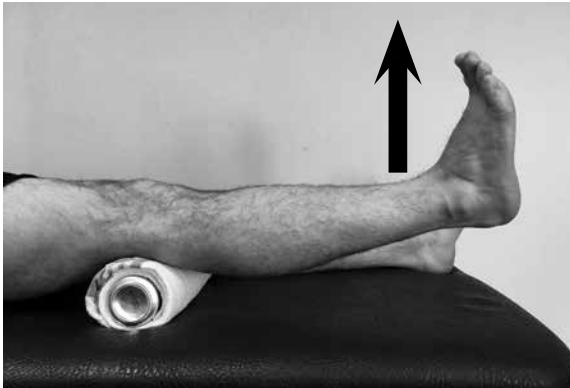
- Sit or lie with your operated leg stretched straight out in front of you.
- Slide your heel towards your bottom, allowing your knee to bend gently. Increase the amount of bend as comfort allows.
- Slide your heel back down again so your leg is completely straight.
- Relax completely.



Exercise 4. Inner Range Quadriceps

This exercise will help to strengthen your quadricep muscles and give you more muscle control around your knee.

- Sit or lie with your operated leg stretched straight out in front of you.
- Place a firm cylinder (such as a tin of beans wrapped in a towel) under your knee.
- Push the back of your knee into the cylinder, straightening your knee and lifting your foot up in the air.
 - Your knee must not lose contact with the cylinder
- Hold for 5 seconds.
 - Increase the hold to 10 seconds as you get stronger
- Relax completely





Exercise 5. Knee Bending and Straightening in Sitting

This exercise will help to increase the bend in your knee.

- Sit on a sturdy chair with your feet flat on the floor.
- Straighten your operated knee as far as you can, aiming to get your knee completely straight.
- Hold for five seconds then slowly lower your foot to the floor.
- With your foot on the floor bend your knee back as far as possible, sliding your foot back towards the chair.
 - Increase the bend as comfort allows.

Exercise 6. Heel Hangs

This exercise will help you to get your knee fully straight.

- Sit or lie with your operated leg stretched out in front of you.
- If you are lying down, put a rolled-up towel under your heel. The towel should be deep enough, so that your calf does not touch the bed.
- If you are sitting in a chair, rest your heel on a chair of a similar height.
- Hold this position for 10 seconds.
 - You will feel a stretch at the back of your knee
- Aim to build up the length of time you can spend like this, up to 10 minutes.



Exercise 7. Knee Bending in Standing

This exercise will help to strengthen your hamstring muscles at the back of your thigh and increase the bend in your knee.

- Stand with your hands supported on a table, a high-backed chair, or the wall
- Bend your knee by taking your heel up towards your bottom – Do not bring your knee up and forwards towards your chest.
- Hold for 5 seconds then lower your foot to the floor.



Exercise 8. Placing Operated Leg on and off a Step

This exercise will help to increase the bend in your knee.

- Stand at the bottom of a flight of stairs and hold the banister gently for support and balance.
- Place your operated leg up onto the first stair.
- Hold for 5 seconds then step down.





Exercise 9. Sitting to Standing

This exercise will help to strengthen the muscles in your legs.

- Sit on a firm chair with arm rests.
- Bend both knees as far back as possible keeping your feet flat on the floor.
- Stand up and sit down.
 - You may use your arms for support if you feel it is necessary.

Return to Functional Activities

By the time you leave hospital you will be able to:

- Get in and out of bed on your own.
- Walk independently with a walking aid.
- Get in and out of a car with little help.
- Climb stairs safely using your walking aid.

It is best if you do your exercises little and often, and the responsibility for doing them is with you. Much of the success of your recovery will be dependent on how diligent you have been with your exercises

If required, physiotherapy will be arranged for you after you have gone home. If you have any queries about your exercises, you can ring the Physiotherapy Department for advice.

The number is **01865 738074**

Gently increase the exercises you are doing and the distance you are walking if your knee is feeling comfortable. Remember to ease off and do a little less if your knee gets very tired or painful.

You should stop if any exercise causes a sudden increase in pain or severe swelling. Contact your physiotherapist if you have any questions.

Activities from 6 weeks

The following will give you an idea of what you can aim for:

Driving

It may be possible to drive at around 3-4 weeks depending on how quickly you are recovering, which leg has had surgery or if you have an automatic car. You should have at least progressed to 1 crutch or stick and must be able to do an emergency stop and be in complete control of your vehicle.

Return to Work

This is very much dependent on the nature of your work and how long it may take you to travel to work. Some people return to desk-based jobs at around 6 weeks. You may need longer to recover if your occupation requires manual or heavy work, or you need to be on your feet for long periods of time.

Heavier Household Tasks

From 6 weeks, you may like to try more strenuous activities around the home such as using a vacuum or gardening.

Kneeling

There is no reason why you can't kneel following a knee replacement. It is more comfortable to kneel on a soft surface such as your bed or a pillow or cushion and for short periods only.

We recommend you do not try to kneel before 6 weeks after your operation as your scar will still be very tender.

You may also notice that you have a numb patch around your scar. This is entirely normal and may lessen with time.

To kneel, support yourself by placing your hands on a firm surface such as a chair or your bed.

Lower one knee to the soft surface you have chosen to kneel on and bring the other knee down beside it.

To return to standing, place one foot flat on the floor and push with your arms and the foot that is flat on the floor.



Further Activities from 3 to 6 months

At 3 months exercises 3 to 9 can be progressed by adding a small weight to your ankle or increasing the number of repetitions.

You may now want to try some of the following activities:

Swimming

- You must not swim until your wound has completely healed.
- We recommend that you only do front or back crawl.
- Avoid breaststroke until at least 6 months.
- If breaststroke is uncomfortable when you try it, leave it for 2-3 weeks and try again once you are a little stronger.

Cycling

- Only cycle if your knee feels comfortable on a full turn of the pedal.
- You may like to begin by using an exercise bike and then progress to outdoor cycling when you feel safe to do so.

Gym Work

You may want to return to your local gym.

- Let the gym instructor know you have had a knee replacement.
- Start with gentle non-impact activities and progress the exercise intensity and variety gradually as you get stronger.
- Don't forget to warm up prior to starting heavier exercises.

Returning to More Strenuous Activities

- Towards 6 months you may want to try some activities to help you return to sport if you choose to do so.
- If you are aiming to return to a specific sport, then it may be helpful to discuss this with your physiotherapist about how best to prepare for this

General Advice

- Regular exercise is recommended.
- As with all exercises, slowly increase the amount you do.
- Try to avoid high impact activities such as running.

Physiotherapy Department Telephone Advice Line

Telephone: **01865 738 074**

The Physiotherapy Department Telephone Advice Line is available in the first 12 weeks after your operation. You can ring if you have any questions concerning your exercises or feel that you are not making good progress, not achieving your goals, or struggling at home after your knee replacement. If there is no reply when you ring, please leave a message and we will return your call.

Other Contact Information

For queries about your hospital appointments:

The Nuffield Orthopaedic Centre Hip and Knee Service

Telephone: **01865 737 876**

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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