

Exercises following your knee surgery

Patient Name:



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Introduction

This booklet contains information about exercise following your knee replacement surgery. Exercise is vital to the recovery process and will help you get the best possible outcome from your operation.

These exercises will help:

- Increase the circulation in your legs and feet. This is important to reduce the risk of blood clots
- Prevent stiffness and regain movement in your knee
- Reduce pain and swelling
- Strengthen your muscles and improve stamina
- Speed up your recovery

It is important to start the exercises on the same day as your surgery, and continue to do them regularly once you go home. If your pain allows, you should practice the exercises in this booklet before your surgery takes place. In addition to completing the exercises in this booklet, you should also start walking and building up your activity levels as you progress with your recovery.

Pain and swelling

Having a joint replacement will relieve pain in your knee caused by arthritis, but you will experience some pain after the surgery while the tissues around your new joint are healing.

It is important to make sure your pain is controlled well to allow you to exercise. Taking your pain medications as prescribed will help with this. If you are unable to perform exercises due to pain, please inform a nurse, doctor or therapist.

There may be some swelling in your joint after the operation. You can reduce this swelling by elevating your operated leg on a footstool, chair or bed. It is strongly recommended that leg elevation is performed between 40 and 60 minutes at least three times per day. This can be performed more frequently if necessary.

An ice pack can help ease pain and swelling. You may use crushed ice, a gel pack or a pack of frozen peas which should be wrapped in a damp towel before being placed on the knee. Apply the ice pack to the sore area for up to 15 minutes, up to four times a day. Allow 20 minutes between applications. Continue to do this daily until the swelling has gone, which could take a few weeks.

Exercises

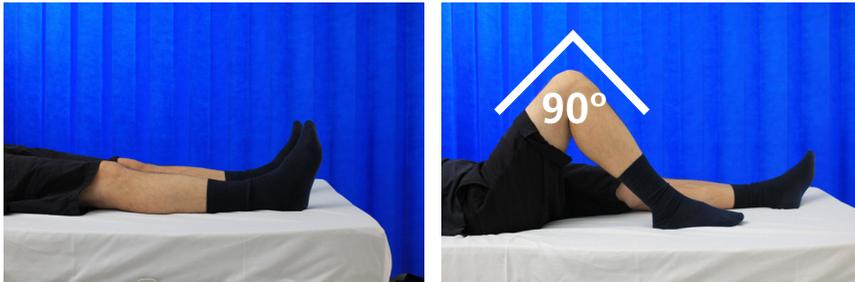
In this section you will find pictures and instructions of some exercises you should start doing as soon as possible after your surgery. You should:

- Start by completing the bed exercises on the day of your surgery
- Add the chair and standing exercises once you are mobile
- Aim to complete them three or four times each day starting with five repetitions of each exercise, then building up to ten of each exercise
- Familiarise yourself with the exercises before you have your surgery and get into a routine of completing them

During your hospital stay, your physiotherapist will make sure you are completing the exercises correctly. They may make some changes to suit your individual needs.

Knee movement after your surgery

It is very important that you bend and straighten your knee as much as possible immediately after your surgery. You should aim to be able to fully straighten and bend your knee to 90 degrees.



It is important that you do not rest with your knee slightly bent as this will cause it to become tight and make it difficult to straighten back out again.



Bed exercises

1. Ankle pumps

- Move your feet towards you and then away from you



 Repeat 10 times, three times a day

2. Static quads

- Push your knee down into the bed, tightening the muscle at the front of your thigh, hold for approximately 5 seconds



 Repeat 10 times, three times a day

Bed exercises

3. Buttock squeeze

- You can perform this exercise in bed, sitting on a chair or whilst you are standing upright.
- Slowly squeeze your bottom muscles, holding for approximately 5 seconds, and then relax.



 Repeat 10 times, three times a day

4. Knee bending

- With your foot flat on the bed, slide your heel towards you, so that your knee bends
- Straighten your leg, returning to the starting position



 Repeat 10 times, three times a day

Bed exercises

5. Knee straightening

- Place a rolled up towel under your knee
- Push your knee down in to the towel, lifting your heel off the bed and straighten your knee
- Lower back down



 Repeat 10 times, three times a day

6. Straight leg raise

- Tighten the muscles and the front of your thigh
- Lift your whole leg off the bed keeping your knee straight
- Slowly lower your leg back down to the bed



 Repeat 10 times, three times a day

Chair exercises

1. Knee straightening

- Sitting in a chair, lift your foot off the floor
- Straighten your leg out in front of you
- Lower your leg back down



 Repeat 10 times, three times a day

2. Knee bending

- Sitting in a chair, start with your foot out in front of you
- Keeping your foot on the ground, move your heel backwards as far as you can go aiming to bend your knee to 90 degrees and hold five seconds
- Return to the starting position



 Repeat 10 times, three times a day

Standing exercises

1. Heel raises

- Hold on to a solid surface at waist height
- Stand with your feet hip width apart
- Push up through your toes lifting both heels off the floor
- Lower back down



 Repeat 10 times, three times a day

2. Mini squat

- Hold on to a solid surface at waist height
- Stand with feet hip width apart
- Keeping your feet flat on the floor bend your knees a small amount as if you are starting to sit down
- Push through your legs to return to standing



 Repeat 10 times, three times a day

Standing exercises

3. Hamstring curl

- Hold on to a solid surface at waist height
- Bend your knee taking your heel towards your bottom, try to keep your knees level
- Straighten your knee, returning to the starting position



 Repeat 10 times, three times a day

Walking

When you are getting out of bed for the first time, a member of the ward team will help you. We advise that you do not try and get out of bed by yourself when doing so for the first time.

You will be encouraged to take your full weight through your new knee, and walk as normally as possible straight after surgery. At first, you will use a frame to build your confidence, and may progress to using crutches before you go home.

When walking you should:

- Place your walking aid in front of you
- Step forward with your operated leg first
- Then step forward with your non-operated leg



Repeat the above steps, walking forward. Try to gradually put more weight through your operated leg, and walk in a rhythmical, even pattern.

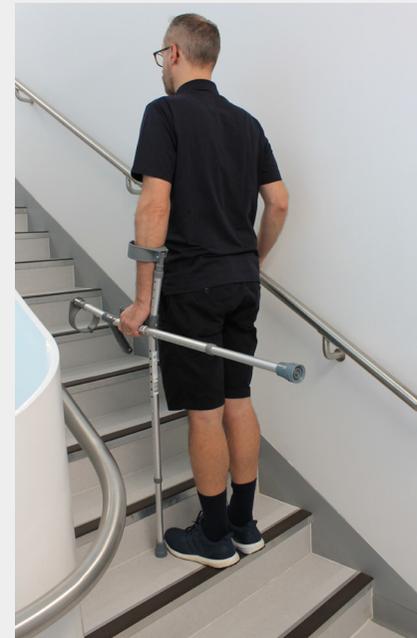
Stairs

Once you are safely walking with two crutches, a therapist will teach you how to climb stairs if you need to do this at home.

If you have a sturdy banister or rail on the steps you should use this and hold a crutch in your other hand as shown in the pictures.

When going up stairs you should:

- Step up first with your **non-operated leg**
- Then step up with your **operated leg** on to the same step
- Move your **crutches** last to join your feet on the step
- Continue the sequence for every step



Stairs

When going down stairs you should:

- Put your **crutches** down ahead of you
- Step down with your **operated leg**
- Then step down with your **non-operated leg** onto the same step
- Continue the sequence for every step



Ongoing recovery

Once you go home it is important that you break up your exercise and activity into small manageable pieces and build this up gradually. You will need to give yourself time to rest in between as patients often feel very tired after having surgery.

You should try to slowly build up how much you are walking each day. Using a step counter can be helpful to keep track of this. You may still experience pain for a few months so keep taking pain control as you are instructed to keep it under control.

Going outside

You can go for a walk outside as soon as you feel confident enough and steady on your feet with your walking aids. You should start by keeping both crutches with you when you do this.

Weaning off crutches

You should wean yourself from using crutches as soon as you feel steadier on your feet, as long as this does not cause you to limp. Reducing your support to just one crutch is a good way to start this process. When using only one crutch should hold the crutch in the opposite hand to your operated leg.

If there are particular sports or activities that you would like to get back to doing after your joint replacement, you should discuss these with your physiotherapist or consultant.

Outpatient physiotherapy

After your operation you will have an appointment with the outpatient physiotherapy team. At this appointment you will be reviewed by a physiotherapist and given some specific further exercises that will help you to progress with your recovery. Some patients may have this appointment at a different hospital to where your surgery took place.

You can use the space below to record the details of where and when your physiotherapy appointment will be:

Location:
Date:
Time:

More advanced exercises

Here are some more advanced exercises that you may want to try when you are confident with the other exercises in this booklet. If you are unsure – then we advise waiting until your physiotherapy appointment before trying them.

If you do feel able to progress to these exercises, then you should do them alongside the others, aiming to complete three or four times per day. You can start with five repetitions of each exercise, building up to ten.

1. Bridging

- Lie face up on the floor or bed, with your knees bent and feet flat on the ground. Keep your arms at your side with your palms down
- Slowly lift your hips off the bed or floor squeezing your bottom muscles until your knees, hips and shoulders form a straight line
- Hold this bridge position for a couple of seconds before easing back down to the floor



 Repeat 10 times, three times a day

2. Sit to stand with support

- Start sitting on a chair, stand up pushing equally through both legs, using your arms to support you if you need to
- Sit back down into the chair
- When this becomes easier, try this without the support of your arms



 Repeat 10 times, three times a day

More advanced exercises

3. Step up

- Using the bottom step of a set of stairs, hold on to a bannister or rail
- Step up with your operated leg onto the first step
- Then step up with your other leg on to the same step
- Step back down one leg at a time so both your feet are on the floor and repeat



 Repeat 10 times, three times a day

North Central London Elective Orthopaedic Network offers excellence in orthopaedic care, research and education

The network has been created to improve the care offered to patients. It is based on partnership working between hospital trusts.

Working together in this way means patients can receive timely and high-quality care. Clinicians from across hospitals will work together as a single team, have joint training and education, and hospitals can share their facilities, opening up access to more dedicated beds and operating theatres.

It is provided by North Middlesex University Hospital NHS Trust, Royal Free London NHS Foundation Trust, Royal National Orthopaedic Hospital NHS Trust, University College London Hospitals NHS Foundation Trust and Whittington Health NHS Trust.

Services are delivered through two partnerships, working alongside a specialist hospital.

