



Hampshire
Orthopaedic Centre

Advice and exercises for before and after your total knee replacement

Information for patients, relatives, and carers

Service provided by:

Hampshire Hospitals NHS Foundation Trust

Exercises before your operation

Start these exercises now, before you have your operation. Although your joint may be sore while waiting for surgery, doing these exercises and moving your knee will help improve its movement and strengthen the muscles around it. This will help the muscles work better after surgery, which can make recovery easier and faster.

Starting now also helps you get used to the exercises you will be doing after your operation. Begin with the 'starter' exercises in this booklet. If they feel too easy, then stop and move onto the 'progression' exercises.

Exercises after your surgery

Doing your exercises after your operation is **essential** to ensure you get the best possible results. Begin with the starter exercises for the first two weeks. Start the progression exercises two weeks after your surgery, or when you find the starter exercises too easy.

Aim to do them **three times a day**, following the instructions next to each exercise. It is perfectly normal to find this challenging to begin with. Just do what you can and build up slowly.

Top tip

Fit the exercises into your daily routine. For example, do a few during TV ad breaks.

Normal responses to exercise

Pain and delayed onset muscle soreness (DOMS)

It is normal to feel some pain and muscle soreness after surgery. This happens because the soft tissues around your joint are still healing.

You may feel sore for up to 72 hours after exercise. This is your muscle reacting to being worked harder than usual, which is a normal part of getting stronger.

Swelling

Swelling is a normal part of healing after joint replacement surgery. It may increase after exercise because you are using the joint more, which is expected, but it should improve with rest and elevation (keeping your leg raised).

If swelling does not go down, or if you notice redness, heat, fever, or any discharge from the wound, contact the Hampshire Orthopaedic Centre (HOC) during office hours. Evenings and weekends, dial 111 for advice or go to your nearest emergency department (A&E).

Please note that you will only be under the care of the HOC for the first 14 days after your operation. We will then transfer your care back to your local hospital. If you experience any of the above symptoms two weeks after your surgery, please contact your local team.

‘Starter’ exercises

Aim to begin with **10 repetitions** of each exercise. Start doing these exercises as soon as you receive this booklet.

1. Inner range quads

- Sit up in bed or on the sofa with your legs supported.
- Place a tightly rolled-up towel underneath your lower thigh, just above the back of your knee.
- Keeping your knee in contact with the towel, bring your toes towards you.
- Lift your heel off the bed by straightening your knee **as far as you can without your leg coming off the towel**.
- Slowly lower your heel back down to the bed.



2. Heel prop with muscle tensing

- Sit in bed or on a sofa with your legs outstretched in front of you.
- Rest the heel of your operated leg on a rolled-up towel with your knee as straight as possible to stretch the muscles at the back of your knee.
- Tense your thigh muscle to get the back of your knee as close to the bed as possible. Hold for five seconds.
- Relax for a few seconds with your knee slightly bent and then tense your thigh muscle to straighten your leg again.



3. Knee bending and straightening

- Sit comfortably in a chair, making sure that the back of your thighs are resting on the seat.
- Bring your toes towards you and lift your heel off the floor, aiming to get your knee straight.
- Go up as far as you can without lifting your thigh off the chair, and then slowly lower your heel back down to the floor.
- With your heel in contact with the floor, slide your foot backwards as far as you can by bending your knee. You should feel a stretch across the front of the knee as you do so.
- Rest for a few seconds and then repeat, alternating between a straighten and a bend.



4. Towel heel slide

- Sit comfortably in a chair, making sure that the back of your thighs are resting on the seat.
- Rest the heel of your operated leg on a towel on the floor in front of you.
- Use your heel to pull the towel backwards to bend your knee.
- Hold for five seconds, then use your heel to push the towel forwards to straighten your knee.



5. Weight shifting

- Stand holding your crutches or a countertop or back of a chair for support.
- Aim to straighten both of your knees as much as you can.



- Slowly move your hips from left to right, shifting your weight from one leg to another.
- Hold for 3 seconds.
- Slowly increase the amount of weight you put onto your operated leg.



Getting in and out of a car

Try to practice this with your crutches **before** your operation.

Preparation

- Avoid getting in or out of a car parked closely against the kerb. You will need enough room to place your feet into the road when getting in or out of a car.
- Always use the front passenger seat. Ask someone to move it back as far as possible to give you room to get in. If you have long legs, make sure that the driver's seat is also moved back as far as possible before you get in (see no.3 of 'Getting in'). Reclining the back of the passenger seat will give you even more room.
- Place a plastic bag on the passenger seat to help you slide back and into position more easily. Remember to remove it from under you before the start of the journey to prevent slipping.

Getting in

1. Turn with your walking aids until the back of your legs are touching the car, then hand your walking aids to the driver.
2. Keeping your operated leg out in front of you, lower yourself down onto the car seat, holding on to the dashboard with your right hand and the back of the passenger seat with your left hand.
3. Slide your bottom across the passenger seat towards the handbrake. If you have long legs, you may need to slide right across to the driver's seat to get your legs into the car.
4. Lift your legs around and into the car with as little twisting as possible.
5. Keep your operated leg out straight and your toes pointing upwards until you are comfortably in your seat. To prevent slipping during the journey, remember to remove the plastic bag from under you once you have sat down.
6. Remember to reach for the seatbelt with your left hand to avoid twisting.

Please note

If there is a fixed or raised armrest, or any other obstruction between the two front seats which would prevent you from sliding across:

- Fully recline the front passenger seat after pushing it back as far as it will go.
- You will now be able to slide up and backwards along the seat and its back, bringing your legs into the car at that point.
- Ask the driver to return the seat to an upright position.

Getting out

- Move your bottom back towards the driver's seat.
- Lift your legs out of the car and slide forward to the edge of the passenger seat.
- Place your left hand on the back of the seat and your right hand on the dashboard (not the car door) and push yourself up to stand. Take your walking aids from the driver.

‘Progression’ exercises

Aim to begin with **10 repetitions** of each exercise. Start doing these exercises **from two weeks onwards after your surgery**.

Alternatively, if you find the ‘starter’ exercises too easy, you can begin doing them as soon as you receive this booklet.

1. Seated knee bend stretch

- Sit comfortably in a chair, making sure that the backs of your thighs are resting on the seat.
- Slide the foot of your operated leg back underneath you to bend your knee as far as it will go.
- To stretch further into the bend, use the non-operated leg crossed in front to help, or shuffle your bottom forwards in the chair without moving your foot.



2. Single leg stand

- Stand holding the back of a chair or countertop for support.
- Bend the knee of your non-operated leg so your heel is behind you.
- All of your weight should now be on your operated leg.
- Slowly practice taking your hands off the chair or countertop (start by only taking one hand off), aiming to hold your balance for up to 30 seconds.



3. Quarter squat

- Stand holding a countertop or back of a chair for support.
- Bend both your knees and sit your bottom backwards (as if you were going to sit on a chair).
- Squat as far down as you feel able, hold for 3 seconds and then straighten both legs to return to the starting position.



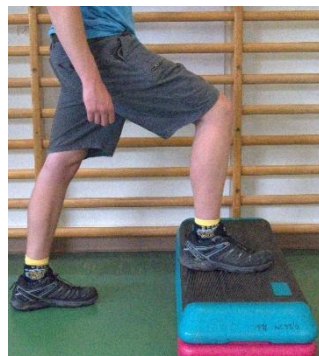
4. Hamstring curl

- Stand holding a countertop or back of a chair for support.
- Keeping your knees in line with each other, bring your heel towards your bottom by bending your operated knee as far as you can.
- Slowly lower your foot back to the floor.



5. Lunge onto step

- Stand at the bottom of your stairs, facing up the stairs. If you do not have stairs at home, place a sturdy upturned box against a wall.
- Place the foot of your operated leg onto the first or second step up (or box).
- Lunge forwards, bending your operated knee forward over your foot as far as you can.
- Hold this position for 5 seconds, then slowly return to your starting position, releasing the stretch.



6. Straight leg lifts

- Sit up in bed or on a sofa with your legs resting straight in front of you.
- Bring your toes towards you and tense your thigh muscle to hold your knee straight.
- Keeping your knee straight, lift your leg approximately 20cm (8") off the bed.
- Slowly lower your leg back down.



7. Step ups

- Stand at the bottom of your stairs facing up the stairs. If you do not have stairs at home, place a sturdy upturned box against a wall.
- If you have one, hold the stair rail for balance and support.
- Place the foot of your operated leg onto the first step. Use this leg to push yourself up onto the step by straightening your knee.
- Slowly lower your non-operated leg back down to the floor and repeat.



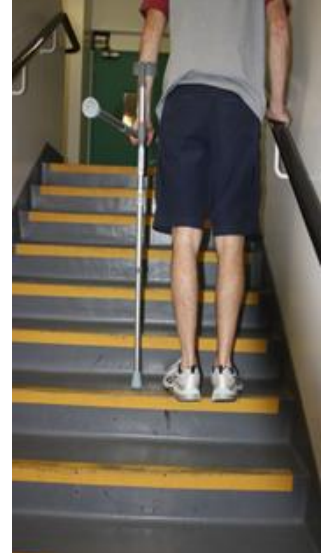
Make sure that you are not pulling yourself up the step by using your hand on the rail.

Stairs

There is no right or wrong way to go up and down the stairs, but the following instructions should make it as easy as possible, as it reduces the load going through your operated leg.

Going upstairs

- Use one crutch as normal, keeping it in contact with the floor. Use the same hand to grasp the second crutch in a T shape. Hold onto the stair rail (banister) with your other hand.
- Place the foot of your good (non-operated) leg onto the step above.
- Bring your bad (operated) leg up to join it.
- Then bring your crutches on to the same step as your feet.
- Repeat, taking your time and watching where you place your feet.



Going downstairs

- Use one crutch as normal, keeping it in contact with the floor. Use the same hand to grasp the second crutch in a T shape. Hold onto the stair rail (banister) with your other hand.
- Place your crutch onto the step below.
- Place the foot of your bad (operated) leg onto the step below.
- Bring your good (non-operated) leg down to join it.
- Then bring your crutches on to the same step as your feet.
- Repeat, taking your time and watching where you place your feet. until you reach the bottom.



Contact us

If you have any questions, problems or need advice once you are at home, please do not hesitate to contact us on one of the numbers below.

Hampshire Orthopaedic Centre

Telephone: [01962 824699](tel:01962824699)

Royal Hampshire County Hospital

Winchester Orthopaedic Therapy Services (occupational therapy and physiotherapy)

Telephone: [01962 825670](tel:01962825670)

Orthopaedic education and follow-up clinic

Telephone: [01256 313580](tel:01256313580)

Email: oejointreplacementclinic@hhft.nhs.uk

Basingstoke and North Hampshire Hospital

Basingstoke Orthopaedic Therapy Services (occupational therapy and physiotherapy)

Telephone: [01256 313205](tel:01256313205)

Southampton General Hospital

Southampton Orthopaedic Therapy Services (occupational therapy and physiotherapy)

Telephone: [02381 204452](tel:02381204452)

Your feedback is important to us

Comments, concerns, compliments, and complaints

If you have any comments, concerns, compliments, or complaints about your care, please let us know as soon as possible. Please speak to the nurse in charge, ward sister or matron so that we can help to resolve your concerns quickly.

PALS and complaints

You can contact the PALS and complaints team by telephone on [01256 486766](tel:01256486766) or via email at PALSandcomplaints@hhft.nhs.uk

This booklet is available in other formats, including large print and Easy Read, from the PALS team.

www.hampshirehospitals.nhs.uk/our-services/hampshire-orthopaedic-centre-hoc