Uni-compartmental knee replacement (UCA) advice and exercises

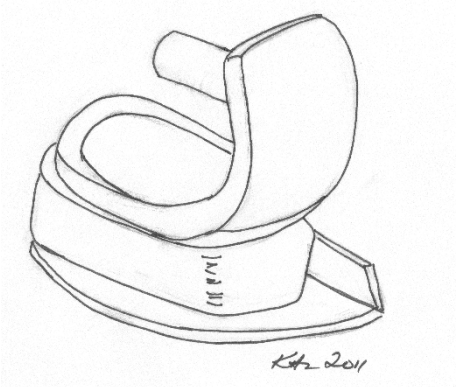
This advice is for patients who have had a uni-compartmental knee replacement. This information is designed to help you get back to full fitness as quickly as possible after your operation.
Before you leave hospital a physiotherapist will teach you all the exercises on this leaflet and make sure that you do not have any problems.

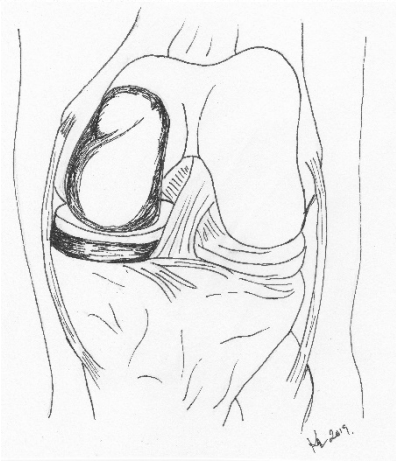
Introduction

A uni-compartmental replacement is usually done for severe arthritis and primarily used to improve arthritic pain. Please note that it is not uncommon for joint line pain to persist for up to two years after the surgery. In most cases, you will regain the range of movement you had pre-operatively and sometimes a little more but it may not allow you to fully squat or sit back on your heels and they are not made for high impact activities such as running and jumping.

During the surgery the end of the thigh bone (femur) is replaced by a metal component, the upper end of the shin bone (tibia) is also replaced with a metal component and a plastic spacer inserted between the two.

The approach for the uni-compartmental knee replacement is on the front of the knee usually to the side that is being replaced and is about 5cms long. All surgery will result is some bruising and swelling. It is therefore very important to start your exercises as advised by your physiotherapist to overcome these problems.





After your operation

Pain

- Having a joint replacement will relieve the arthritic pain from the joint itself, but because of the trauma to the soft tissues surrounding the joint during surgery you may experience some pain. Taking your medications regularly and following the guidelines in this leaflet should help minimise this.
- If the pain relief provided is not sufficient, please inform the nursing staff or your doctor and further pain control will be provided.
- On discharge some pain may persist for a further few weeks/ months and you should use this as a guide when increasing your daily activities. A moderate ache which settles quickly is acceptable, severe pain which takes hours to settle is not.

- If you experience sharp pain, stop the activity immediately and if symptoms persist contact your GP for advice.

Swelling

- Your knee may swell for up to three months or more after your operation.
- If this occurs, sitting with your leg up and an ice pack will help ease the swelling. You may use crushed ice, a gel pack or a pack of frozen peas, which must be wrapped in a damp towel or tea towel before being placed on the knee.
- Do not keep the ice pack on any longer than 10 minutes. Any longer than this and the body will increase the blood flow to the area in an attempt to warm the tissues up again. This will make the swelling worse. Allow 20 minutes between applications.

Wound care:

On discharge you must arrange an appointment with your practice nurse for a wound check 10-12 days post-op.

If you have any concerns about your wound i.e. it is red, weeping or bleeding please call the **Orthopaedic Outpatients Department on 0118 322 6938.** Please note this is an answer service only. It is checked in the morning on working days only (not weekends or bank holidays). Please leave a message and you will be contacted with an appointment as soon as possible.

If you feel the problem cannot wait, please leave a message and then either contact 111 for advice or attend your local Emergency Department (A&E). If you feel unwell or feverish and particularly if the wound appears infected please attend your local A&E.

Mobilising

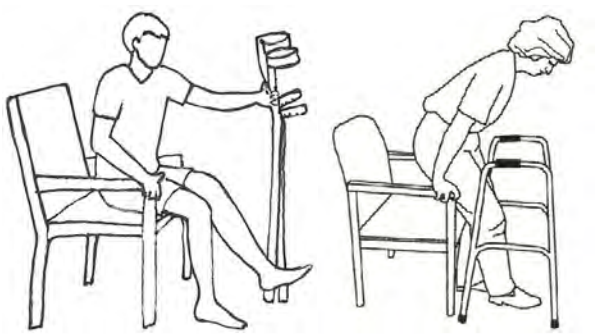
- You can mobilise on the day of the surgery.
- You will be mobilised with the most appropriate walking aid, this is likely to be crutches.
- When walking you should move the walking aid/s forward first, followed by the operated leg then the un-operated leg last.
- You should retain 2 crutches or walking sticks until you can walk without a limp.
- You may progress to 1 crutch or stick around the house when confident and to one stick/crutch or none when you no longer have a limp and are confident to do so both indoors and outside.
- It is advisable to keep the leg elevated as much as possible for the first 3-4 days when not mobilising or engaged in normal activities.

Discharge

You will be discharged home once:

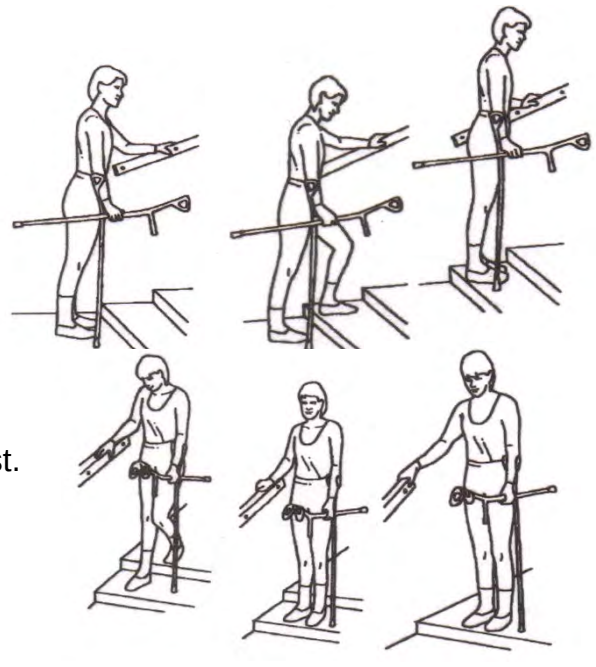
- You can transfer from bed to chair, toilet etc. independently.
- You can mobilise independently with crutches.
- You can manage the stairs independently.
- You are independent or need minimal assistance with personal care.
- **Please note this can be the same day as the surgery.**

Sitting down / standing up

To stand up, shuffle to the front of the chair, tuck your feet back underneath you. You may find it more comfortable initially to place the operated leg out in front of you. Push up with both hands on the arms of the chair, or push up with one hand on the arm of the chair holding your crutches in the other. Once balanced place both hands on the frame or crutches in both hands. ·	
To sit down, stand close enough to feel the chair against the back of your legs. Either let go of the walking frame and reach back to the arms of the chair with both hands or place both crutches in one hand and place the other on the arm of the chair. Step your operated leg forward and gently lower yourself into the chair.	
Do not use the frame to pull yourself up or stand up or sit down with your hands still in the crutches.	

Stairs

- To begin with it is better to go up or down the stairs one step at a time.
- Place the crutches/sticks in one hand and hold onto the rail with the other.
- Going up, you should place the un-operated leg on the step above first, followed by your operated leg and crutch/stick.
- Coming downstairs you should place your operated leg together with your crutch/stick onto the step below first, followed by your un-operated leg last.



Kneeling

- You will not do any harm to the knee replacement by kneeling on it.
- Some people can kneel on the knee within a few weeks of their surgery and some people never find it comfortable to kneel.
- Once the scar is comfortable start by kneeling on a soft surface, i.e. the bed.
- Once you can comfortably kneel, try a firmer surface, you may find it beneficial to use a cushion or kneeling pad.

Functional activities

- Avoid jarring and twisting activities, such as pushing a shopping trolley or vacuuming for 6-8 weeks.
- You should avoid having a bath until the wound is fully healed and you can get out of the bath again, this is unlikely to be before 6 weeks.
- If you have a walk in shower you can use this immediately as the dressing is shower proof, always take your time and try and hold onto something solid when stepping in and out, or have someone with you. It is advisable to have an anti-slip mat for safety. . If a separate shower is unavailable, you may have to strip wash until the knee is comfortable enough for you to step into the bath.
- You may find that standing up to strip wash is uncomfortable. It is therefore advisable to sit on a chair or stool at the sink.
- Dressing – you may have problems putting clothes over your operated foot and leg, try dressing your operated leg first and undressing it last. If you think this may be a problem, dressing aids can be purchased to make things easier.
- Preparing food and drink – you may find that standing up to prepare food and drinks is uncomfortable. It is advisable to sit on a chair or stool in the kitchen.
- You will return home with walking sticks or crutches and so will find it difficult to carry food and drink from the kitchen therefore it is advisable to organise an area in the kitchen to eat meals.

Before you go home:

Also consider how you are going to manage domestic activities such as shopping, cleaning, putting out the dustbin and feeding pets.

Driving

- Do not drive until you can do an emergency stop. Normally this will take about 6-8 weeks.
- In order to drive you should be relatively pain-free, not be heavily dependent on walking aids, have a good range of movement and your reflexes should be good enough to do an emergency stop.
- Even then you should take it easy to begin with and have a ‘test drive’ with an experienced driver before you go out on your own.

Work

- If you plan to go back to work after your operation, you should check with the surgeon when this would be appropriate.
- If you need a medical certificate (fit note) for your employer, please ask the nurses before you leave hospital. Further certificates can be obtained from your GP.
- This is usually around 4-8 weeks following your operation if you have a sedentary job. A job that includes more physical activities, such as prolonged walking or standing or heavy lifting may require up to 3 months.

Sports/hobbies

- If you wish to return to sport consult your surgeon or physiotherapist before doing so.
- Walking and swimming are encouraged but sports which call for jogging or jumping, or contact sports are not.
- Golf – can start playing at 8-12 weeks but start with chipping and putting before playing 9 or 18 holes. Avoid the driving range for up to 3 months as the repetitive twisting can aggravate the knee.
- Gardening is fine but take care with heavier work such as digging. Start very gradually and do not increase the amount of activity until you feel confident and have suffered no adverse symptoms. Invest in a kneeling stool for weeding etc. If you cannot kneel long handled tools will be of benefit.
- Racquet sports – recommend up to 3 months before returning to racquet sports and recommend playing doubles rather than singles.

Travelling

It is not advisable to fly within 6 weeks of having a joint replacement due to the increased risk of developing venous thromboembolism (VTE) – blood clot. Long haul flights should be avoided for 3 months.

Follow-up on discharge

Your clinic appointment will be arranged by the ward for 6-8 weeks after discharge.

Please note this appointment will be with a specialist physiotherapist not a doctor.

Physiotherapy follow-up is also arranged dependent on circumstances and where you live.

If you have any queries please do not hesitate to contact us on the phone number at the back of this leaflet.

Day 0 (day of surgery)

Mobilising

- You can get up today.
- We will provide you with the most appropriate walking aid for you; this is likely to be a frame initially. Once you can mobilise round the ward independently with a frame, you will be progressed to crutches or sticks.
- Once you are safe on crutches / sticks and can use the stairs, you may go home.
- **Please note that you may reach these targets and be discharged home on the same day as the surgery.**

Start the following exercises on the day after your surgery and do them a minimum of 5 times each, 1-2 times a day with each leg. Your physiotherapist will help explain how to do them. If this results in no increase in your pain and swelling, you can increase the exercises to 10 times each, 3-4 times a day.

Static quads

- Sit or lie with your leg straight out in front of you.
- Tense your thigh muscles (quads) by pushing the knee down into the bed, pulling your toes towards you.
- Hold for a slow count of 5-10.
- Repeat 5-10 times.

Straight leg raise

- Sit or lie with your leg straight out in front of you.
- Tense your thigh muscles (quads) as for exercise 3, then lift your leg approximately 2 inches off the bed.
- Hold for a slow count of 5-10.
- Repeat 5-10 times.
- It is essential that you at least attempt this exercise. Even if you are unable to achieve this straight leg raise you will still be working the muscles in your leg.

Knee flexion on the bed

- Sit with your back supported or lie flat.
- Bend your knee up towards you and then slowly lower it back down.
- Repeat 5-10 times.

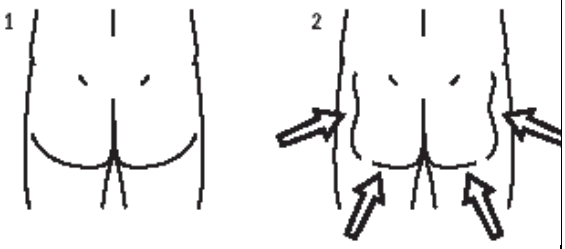
Please note: A sliding board can be useful for this exercise, at home a tray and talcum powder or a plastic bag will work equally effectively.

Static hamstrings

- Sit or lie with your leg straight in front of you.
- Pull your heel into the bed by tightening the muscle at the back of your thigh.
- Hold for a slow count of 5-10.
- Repeat 5-10 times.

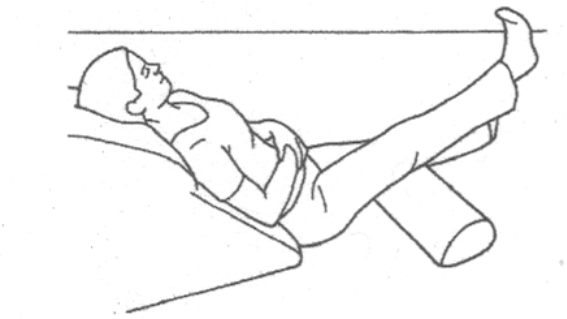
Static gluts

- Tense your bottom muscles.
- Hold for a count of 5-10.
- Relax.
- Repeat 5-10 times.



Inner range quads

- Sit supported or lie on the bed.
- Place a rolled up towel wrapped around something solid like a tin under your knee.
- Straighten your knee, lifting your heel off the bed.
- Hold for a slow count of 5-10.
- Relax and repeat 5-10 times.



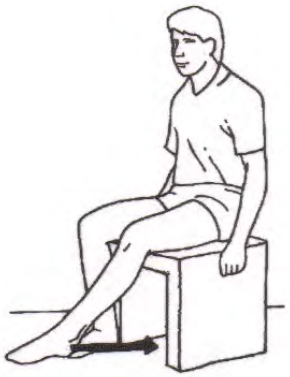
Once sat out in a chair you can also add in the following exercises.
Again, start with a minimum of 5 of each 1-2 times a day and increase as able.

Full range quads

- Sitting on the edge of the bed or in a chair.
- Pull up the toes of the operated leg, tense the muscles at the front of the thigh and straighten the knee.
- Hold for a slow count of 10 then relax.
- Repeat 10 times.

Knee flexion in sitting

- Sitting on the edge of the bed or in a chair.
- With your foot on the floor bend the knee as far as possible.
- Hold for 8-10 seconds then relax.
- Repeat 5-10 times.
- Please note that the scar tissue will tighten up in the first 6 weeks and it is very important to stretch early to achieve the maximum range of movement possible. After 3 months it becomes very difficult to improve flexibility.



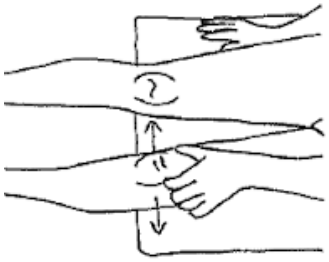
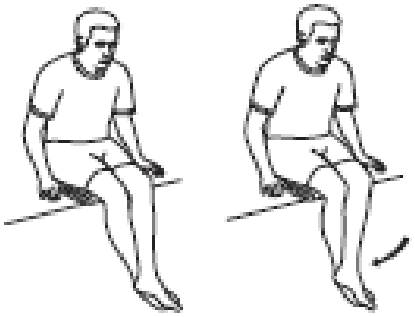
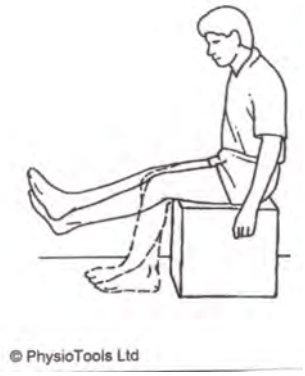
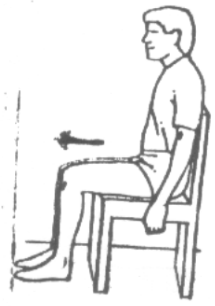
Once home

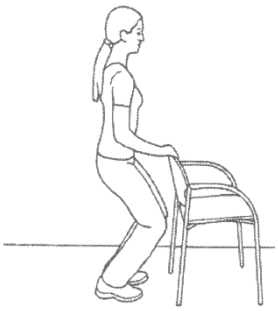
Up to 2 weeks

Once home you must continue with the exercises you have been shown in hospital.

Be aware now that you are home you may feel more tired, this is normal and may take a few weeks to go away. You may still need to rest for part of the day.

You can also try the following exercises, it's recommended at this stage of your recovery to concentrate on regaining your range of movement.

Patella mobs Your physio will show you how to move your knee-cap to prevent it from becoming stiff. Or watch: https://www.youtube.com/watch?v=ewsrnC2OTos	
Assisted knee bend in sitting • Sit in a chair, bend the operated leg as far as you can. • Cross the good leg over the front of the operated leg. • Give a gentle push with the good leg to increase the bend. • Hold for 8-10 seconds. • Relax, repeat 5-10 times.	
Resisted exercises in sitting • In sitting, cross your legs at the ankle with the operated leg underneath. • Use the top leg to resist as you straighten your knee. • Once the knee is straight, swap legs so that your operated leg is now on top. • Bend your knee providing resistance with the underneath leg. • Repeat 5-10 times.	
Using block in front of foot • Sit in a chair, bend your knee as far as possible. • Have someone block your foot with theirs or use something solid i.e. bottom stair or wall. • Gently slide forward in the chair to increase the bend in the knee. • Hold for 8-10 seconds. Repeat 10 times.	

Passive hyperextension This exercise is very good if your knee does not straighten fully because the muscles behind the knee are too tight. • Sit in a chair, place the heel of your operated leg on a stool or chair with the knee unsupported. • Push down gently with your hand on the knee. • Hold for as long as tolerated.	
Heel raises in standing • Standing, holding onto something solid. • Rise up on your toes, lifting your heels off the ground. • Relax. • Repeat 5-10 times.	
Half squats • Standing, holding onto something solid, bend both knees. • Go as far as you can comfortably then stand upright again. • Repeat 5-10 times.	
Knee flexion in standing • Hold onto a support. • Bend the knee behind you, lifting the foot off the floor as far as you can. • Hold for 2-3 seconds then relax. • Repeat 5-10 times.	

2-3 weeks

Once the clips have been removed or the wound has healed if glued or sutured you may start to massage the scar if you wish, this will help loosen and soften the scar.

Massage the scar with your thumb, making small circular movements along the incision. Change direction of the circles frequently. Do 10-15 circles in each area, then move about one inch along the scar and repeat.

Use of creams such as body lotion, vitamin E cream, cocoa butter or Bio-oil is purely one of personal choice. They will not harm the scar and will probably make the massage more comfortable.

By the end of week 2 you should be comfortable and confident walking around the house and will probably be using only 1 crutch/stick indoors.

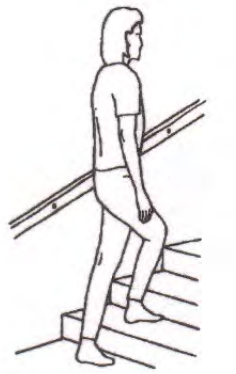
If you haven't mobilised outside the house you should be able to do so now. Start by walking a few minutes in one direction and then back. Keep to sticks or crutches outdoors until you can walk without a limp. Gradually increase the distance you walk each day.

When negotiating a kerb place both crutches down first, then the operated leg followed by the non-operated leg. Going up the kerb, put the non-operated leg first followed by the operated leg and then the crutches (the same as you would do for stairs/steps).

The following exercises are intended to help strengthen the quads muscles at the front of the thigh and to increase flexibility of the knee. This will hopefully increase your chances of managing your stairs normally. Only do them if you feel confident to do so.

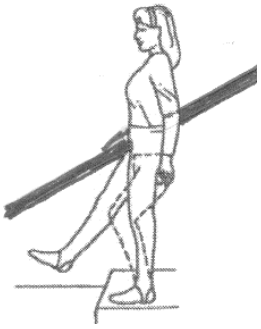
Step ups

- Stand facing the stairs.
- Place your operated leg on the bottom step.
- Hold onto the banister, and try and lift you weight up on the operated leg and place your other foot on the bottom step.
- Lower the good foot back down to the floor.
- Repeat 5-10 times.



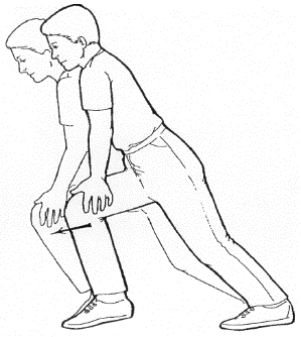
Step downs

- Stand on the bottom step facing down the stairs.
- Hold onto the rail.
- Try and lower your good leg to the floor.
- Straighten up and return foot to the bottom step.
- Repeat 10 times.



Foot on step to increase bend

- Use a single step or the bottom stair.
- Place the foot of the operated leg on the stair.
- Hold onto the rail or something solid.
- Keep your other leg straight and lean forward so that your knee bends more.
- Lean forward till you feel a good stretch, hold for 8-10 seconds. Relax.
- Repeat 5-10 times.



Single leg balance • Hold onto something solid if you need to. • Put full weight onto the new knee and try and lift your good leg off the floor. • Hold for 20-30 seconds. • Repeat 5-10 times.	
Single leg heel raise • Hold onto something solid if you need to. • Put all your weight onto the new knee. • Raise yourself onto your toes, lifting your heel off the ground. • Hold for 8-10 seconds, relax. • Repeat 5-10 times.	

Week 4

From week 4 onwards your knee should be moving more freely and feel less stiff but pain is likely to persist along the joint line.

You may have stopped using crutches or sticks around the house, but will probably may still need crutches or sticks for longer distances outside.

You can now use a static bicycle if you have one. Make sure that the seat is low enough that you can mount comfortably and high enough that you stand the best chance of managing to pedal.

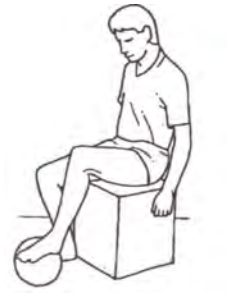
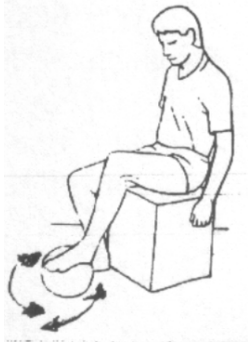
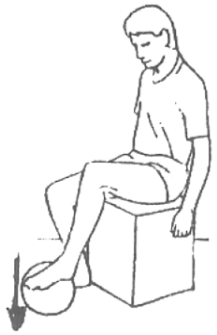
First move the pedal forwards or back until the knee cannot bend any further, reverse direction, do this for a few minutes as a warm up.

If after the warm up, you still cannot pedal correctly continue with the rocking motion pushing to end of range and holding for a few seconds.

Rock or pedal for 5-10 minutes three times a day.

The following exercises are designed to help improve your balance:

Balancing with feet together Stand where you can hold onto something solid if needed. • Place both feet together. • Slowly let go with one hand, and then as you feel balanced let go with the other. • Hold for 10-15 seconds, repeat • 10 times. • Once you find this exercise easy, do it with your eyes shut.	

Balancing one foot in front of the other • Stand where you can hold onto something solid. • Place the heel of your operated leg just in front of the toes of your other leg. • Slowly let go with one hand, and then the other. • Hold for 10-15 seconds, repeat 10 times. • Once you find this exercise easy, do it with your eyes shut.	
Rolling a ball forward and back while seated • Sitting in a chair, place a small football or similar sized ball under your operated foot. • Start by rolling the ball forward and back for a few minutes as a warm up. • Next roll the ball back as far as possible, hold for a few seconds, then roll forwards. • Repeat 10-15 times.	
Rolling ball in small circles while seated • Sitting in a chair, place the ball under your operated foot. • Roll the ball clockwise in a small circle ten times, then 10 times in the opposite direction. • As this exercise becomes easier, make bigger circles.	
Squashing ball into the floor • While sitting, place the ball under your operated foot. • Try and squash the ball into the floor. • Hold for a slow count of 10. • Repeat 10 times.	
Inner thigh strengthening • Sitting in the chair, place the ball between your knees. • Squeeze your knees together, to squash the ball as hard as you can. • Hold for 5-10 seconds, then relax. • Repeat 10 times.	

Rolling ball while standing • Stand on your good leg holding onto something solid. • With your operated leg roll the ball sideways and back, and round in circles, both clockwise and anti-clockwise. • Do 10 in each direction.	

Continue with the exercises you find most beneficial. It is important to continue some form of exercise to get the most out your new knee. This can be swimming, walking, or cycling. You may also return to the gym, but it is important to get a personalised program developed by someone who understands the limitations of your new knee.

You should also feel confident and have enough stamina to go around the shops or supermarket, though standing still for any length of time the knee may still feel stiff and uncomfortable.

Walking outdoors, we suggest you still use 2 sticks if you have a limp. You can mobilise without walking aids once you are confident to do so and can manage your target distance without support or a limp.

You should be able to return to most daily activities such as cooking and cleaning and if you have a sedentary job you may be able to return to work

1-3 months

By now most of the pain is usually gone, though some stiffness and joint line pain may remain. It is important to continue with the exercises until the stiffness has gone and the knee moves freely.

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You should also feel confident and have enough stamina to go around the shops or supermarket, though standing still for any length of time the knee may still feel stiff and uncomfortable.

Walking outdoors, we suggest you still use two sticks if you have a limp. You can mobilise without walking aids once you are confident to do so and can manage your target distance without support or a limp.

You should be able to return to most daily activities such as cooking and cleaning and if you have a sedentary job you may be able to return to work.

You can drive once you are relatively pain free, are not dependent on walking aids and can manage an emergency stop.

If you wish to progress the exercises this can be done by increasing the number you do of each exercise or by placing a small weight, e.g. 1kg around the ankle.

3-6 months

If you have continued with the balance exercises you should now be able to do them without holding on.

You should be able to do all activities of daily living without restrictions, including climbing stairs normally.

You can continue with the exercises that you find most beneficial but with less intensity.

Hopefully you are now able to return to sports such as golf, gentle tennis or badminton. Avoid high impact sports that include running and jumping and contact sports.

If you enjoy activities such as bowls, gardening and dancing you will hopefully find that you are now pain free and strong enough to start these again.

Please note that some people will still have some joint line pain or tenderness.

6 months – 1 year

You should now be well enough to continue with your life normally.

Please note that joint line tenderness or pain can persist for up to two years after the surgery.

Useful numbers and contacts

Royal Berkshire NHS Foundation Trust **Orthopaedic Physiotherapy Department** Royal Berkshire Hospital London Road, Reading RG1 5AN Tel: 0118 322 7812	Royal Berkshire NHS Foundation Trust **Occupational Therapy Department** Royal Berkshire Hospital London Road, Reading RG! 5AN Telephone Number: 011 322 7560

Please return any crutches, walking sticks or frames you were given by the hospital so they can be cleaned and reused for other patients.

Returned walking aids can be dropped off at:

- Orthopaedic Outpatients (Fracture Clinic), Level 2 South Block, RBH
- Physio East (opposite Craven Rd multi storey car park)
- Adjacent to main reception desk on Level 2 Main Entrance, Craven Rd
- Alternatively, you can return your walking aids when you attend your follow-up appointment at Orthopaedics Outpatients (Fracture Clinic)

Thank you for saving the NHS money and supporting the continued care of other patients.

Visit the Trust website at www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Physiotherapy Department
Reviewed: October 2025. Review due: October 2027.