Chelsea and Westminster Hospital
NHS Foundation Trust

UNICOMPARTMENTAL (PARTIAL) KNEE REPLACEMENT:

ADVICE AND EXERCISE FOLLOWING YOUR OPERATION

Information for patients

SB 2024 update

UNICOMPARTMENTAL (PARTIAL) KNEE REPLACEMENT: Advice and Exercise following your surgery

This booklet is designed to inform you what to expect following your Unicompartment (Partial) Knee Replacement Surgery. The aim of this information is to guide you through your recovery, explain the physiotherapy and in turn help you to achieve the best outcome after your surgery.

Each individual will recover *at their own pace*. Many factors influence the speed at which you recover and achieve your goals. Examples of different factors which can affect your rehabilitation process include your age, your background exercise and fitness levels, your post-op exercise frequency, work and life factors and your own individual knee surgery and status.

Recovering from a major operation can take some time. Most of the improvement is made in the first few weeks and months after your surgery but your knee can continue to improve for up to two years as the muscles get stronger and the tissues heal. Good motivation and regular exercise are very important factors in how quickly you recover and the success of your surgery.

Most patients should be comfortable walking after about six weeks. Driving can normally be resumed around the same time if you are walking normally. You should only return to driving once you are happy you can perform an emergency stop without any restriction. Any office work or work without significant physical activity can be started after six weeks following surgery. If your job is more physical involving climbing, squatting or a lot of stairs you may require longer before returning to work.

We are here to guide you through this process and help you achieve your goals whether that be enabling you to walk pain-free, play with your grandchildren, returning to the gym or other activities!

UNICOMPARTMENTAL (PARTIAL) KNEE REPLACMENT: THE PHASES AND GOALS OF PHYSIOTHERAPY AND RECOVERY

1. Recovery from surgery:

- Minimise Swelling
- Regain full extension (get the knee straight)
- Regain quadriceps (thigh muscle) activation and be able lift your leg straight.
- Wean off elbow crutches once you have a normal gait (walking) pattern

2. Basic strength and balance training:

- Increase the strength of your lower limb (leg) muscles to help support your knee
- Improve your balance
- Improve your general fitness

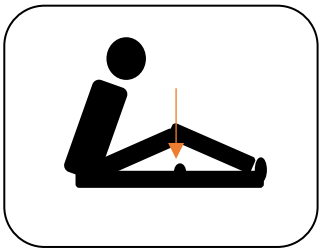
3. Return to physical activities and independent exercise:

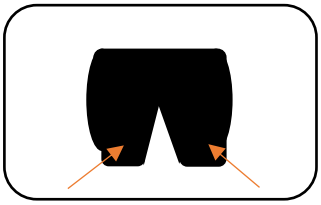
- This phase is patient specific and dependent upon your individual goals

PHASE 1: RECOVERY FROM SURGERY

The main aims once you are home and for the first 2-4 weeks are to:

- Reduce Swelling
- Regain full extension (get the knee straight)
- Regain quadriceps (thigh muscle) activation and be able to straight leg raise
- Wean off elbow crutches once you have a normal gait (walking) pattern





Avoid:

- Sitting or lying with a pillow under your knee. Although this may feel comfortable, it can prolong stiffness within your knee and delay your progress
- Walking with a stiff knee
- Abruptly stopping pain medication – start to wean slowly.

Swelling Management: Minimising swelling as soon as possible is a **key factor** to your progress. As swelling improves, so does your mobility, movement, pain and ability to strengthen your muscles. Ways to reduce swelling include:

1) Elevating your operated leg when resting; ideally above your groin.
2) Applying ice, wrapped in a damp tea towel, for 10-15 minutes, 3-4 times per day
3) Performing your ankle pumps and static quadriceps contractions.
4) Wearing your tubigrip. This is removed at nighttime.

Walking: You are typically walking with elbow crutches for between 2-4 weeks. You should try to walk with *a normal walking pattern* with your crutches. Only wean off the crutches once you are walking normally and following advice from your physiotherapist.

Circulatory Advice: Undergoing surgery increases your risk of blood clot. You can help reduce this risk by keeping mobile, completing your exercises regularly and sitting or lying for prolonged periods.

Dressings: Your wounds will be covered with dressings. These will be removed at your follow-up appointment in orthopaedics which is usually approximately 2 weeks post-op. Try to keep these dressings dry.

Physiotherapy: You are usually reviewed in physiotherapy between 7-10 days following surgery. In the mean-time, please follow this advice and complete the exercises overleaf.

MONITOR PAIN AND /OR SWELLING

Once home, you will still experience pain which should slowly improve over the next few weeks and months. Please use pain and / or swelling as a guide when increasing your daily activities. Moderate discomfort which settles quickly is acceptable whereas more severe pain and swelling which takes hours to settle and interferes with exercise is not.

Each individual will meet these goals at their own pace. Taking your pain medication regularly, applying ice appropriately and following the exercises set out in this leaflet or advised by your physiotherapist will facilitate your recovery.

WALKING WITH ELBOW CRUTCHES AND NEGOTIATING STAIRS

Unless otherwise advised, you are allowed to fully weight bear on your operated leg. However, as previously mentioned, it will be sore. You will therefore likely use walking aids initially to help you to walk.

The main aim when using elbow crutches or walking sticks is to allow you to walk with a normal gait (walking) pattern. You will be advised when to start weaning off your walking aids.

Walking with Elbow Crutches

Stand up straight with your crutches at your side. Place your elbow crutches forwards approximately 1 foot in front of you. Step your operated leg forwards in between your crutches. Step your other leg forwards to join in. Continue this sequence. As your knee feels less sore and you feel more confident you can gradually reduce the weight through your arms and crutches.

Negotiating the Stairs with Elbow Crutches

If you have a rail please use it with one elbow crutch, otherwise use two crutches.

UP STAIRS: Push through the rail and / or crutches. Step your unoperated leg up. Next bring your operated leg up to the same step and then your crutch(es). Repeat.

DOWN STAIRS: Move your crutch(es) down to the step below. Push through the rail and / or crutches and step your operated leg down to the same step. Then bring your non-operated leg down. Repeat.

TYPICAL EXERCISES DURING PHASE 1 AND EARLY PHASE 2

Deep Breathing Exercises

Every hour, take 3-4 deep breaths and cough strongly. This will help to prevent a Chest Infection.

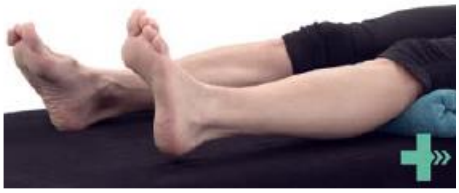
Ankle Pumps

When lying or sitting, perform ankle pumps by pointing your toes away from you and then pulling them up towards your body vigorously. Repeat 20 times every waking hour.

Static Quadriceps Contractions

Sit upright on your bed or on the floor, with your legs straight in front of you. Tighten your thigh muscles on both legs and try to push your knees downwards into the floor or bed. You should see the thigh muscles contracting. Repeat 10 times.
Repeat a minimum of 5 times per day.

Inner range Quadriceps exercise



Use a rolled up towel or small cushion under your knee. Tighten the quadriceps muscles so that your knee straightens and your heel lifts but the back of your knee stays on the roll. Hold for up to 10 seconds if you are able.
Repeat 10 times 5 times per day.

Calf Stretch

In a standing position, use a wall, table or chair for support. Step your operated leg back behind you. Keep the heel on the floor and toes pointing forwards. Keeping the back heel down and knee straight, move your bodyweight forwards to feel a stretch in your calf.
Hold for 45 seconds, repeat twice, 3 times per day.

Heel Slides

Gently bend your operated knee by sliding your heel towards your bottom and then straighten again. ***Start this after day 3.***
Repeat 6 times, 5 times per day.

Standing Knee Flexion

In standing, slowly bend your operated knee to bring your heel towards your bottom.
Repeat 6 times, 2 times a day.

Sitting Quadriceps Exercise

Sit on a high chair or bed. Keep your thigh on the chair, straighten your knee by lifting up your lower leg and tightening your thigh muscles.
Repeat 10 times, 2 times a day.

Heel Raises

Stand and hold onto a firm support. Keep your knees straight and lift up onto your toes. Repeat 10 times, 2 per day

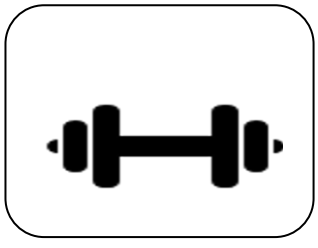
PHASE 2: BUILDING STRENGTH, AEROBIC FITNESS AND BALANCE

Once you have a calm and "quiet" knee (minimal swelling and pain) and you have a normal gait (walking) pattern; the next phase of rehabilitation is to build the strength around your knee.

You need to monitor your knee during this phase as you increase your walking, daily activities and exercise. Swelling and pain may be signs that the demands on your knee are too much ("overload") and you should discuss any concerns with your physiotherapist.

Typical exercises in this phase can be found on page 7. You will be advised when to start these exercises by your physiotherapist. Exercises during this phase are to be performed 3-4 times per week.

As well as building up your strength, it is important to regain and improve your general fitness in this phase. Once you have regained sufficient movement you may wish to start cycling on a static bike and if your wound is fully healed, you can restart gentle swimming (avoiding breastroke).



The mains aims during this phase are to:

- Slowly build your walking tolerance and fitness
- Improve your balance
- Improve the strength of the muscles in your legs so you are "fit for purpose" and are strong enough to undertake your daily activities.
- Improve your confidence and work towards independent exercise.

TYPICAL EXERCISES
PHASE 2

Your physiotherapist will advise when you can start these exercises and how many and how often you should perform.

Sit to Stand from Perched Sitting

Sit on a high stool or raised chair. Your legs should be hip width apart. Stand up with equal weightbearing. Squeeze your thigh and bottom muscles.

Sit to stand

Once perched sit to stand is comfortable you will be progressed to a standard sit to stand. Remember to weightbear equally.

Bridge

Lie on your back (on a firm surface). Bend your knees to at least 90 degrees and have your knees and feet hip width apart. Squeeze your bottom muscles and lift your hips upwards towards the ceiling. Try to achieve a straight line from your shoulders to your hips. Control the movement back down.

Single leg balance

Try to improve your balance control by standing on your operated leg. Keep your shoulders and hips level. Start initially somewhere with support. Aim for 30 seconds

Knee extension

Sit up straight in a chair with a weight around your ankle. Straighten your knee by tightening your quadriceps. Do no raise your thigh. Slowly lower.

Resisted hip extension

Place a resistance band around your ankles. Hold onto a chair or lean on a wall. Keep your body upright, squeeze your thigh and bottom muscles and lift your operated leg backwards.

Resisted side stepping

Stand up straight with a resistance band around your knees. Keep tension on the band as you side step one way and then the other

Step up

Stand facing a small step. Place your operated leg on the step and step up and off with your non-operated leg. Push through your heel.

Cycling on static bike

Ensure a good set up. Gradually build up time.

PHASE 3: RETURN TO INDIVIDUAL ACTIVITIES AND INDEPENDENT EXERCISE

This phase of your rehabilitation and recovery is highly individualized to your goals and therefore exercise varies from person to person.

You are typically under physiotherapy care for 8 weeks following your surgery.

By this stage, you should be feeling the benefits of your knee surgery. ***It is very important to understand that improvements will continue for up to24 months following your surgery with ongoing healing and exercise.***

If you have any particular goals you wish to achieve, the physiotherapy team will support you in achieving these.

Going forwards we strongly encourage patients to continue with both their resistance exercises e.g. sit to stand / mini step ups and their low-impact aerobic exercise e.g. cycling, swimming, cross trainer for the long-term health

The main aims during this phase are to:

- Be independent in exercising and understand that improvements will continue for up to 24 months post-surgery.
- Return to your usual activities and sport if applicable or have a clear plan on how to return to these activities.

CHELSEA AND WESTMINSTER PHYSIOTHERAPY

UNICOMPARTMENT (PARTIAL) KNEE REPLACEMENT PATHWAY

Phase 1

- **Recovery from Surgery**
- Initial 1:1 appointment usually within 7-10 days following your surgery.
- Attendance in physiotherapy is on an "as required" basis to achieve a calm knee with good range of movement.
- Independent home exercise

Phase 2

- **Building Strength, Aerobic Fitness and balance**
- Option to attend our "Functional Exercise Knee Replacement Class" . The aim of this class is to support you to become more confident with exercise. This is not compulsory and many patients choose to exercise at home or at their gym.
- Independent home exercise

Phase 3

- **Return to Physical Activites and Independent Exercise**
- Discharge from physiotherapy between 8-10 weeks post surgery with advice on appropriate exercise for the future

APPROXIMATE GUIDANCE FOR RETURN TO ACTIVITIES

The timescales provided are for guidance purposes but require confirmation by your surgeon and/or physiotherapist.

Activity	Approximate Timescales
Work	Sedentary work: 4 weeks Manual jobs: 5-6 weeks **depends on job
Static Cycling	From 4 weeks
Driving	6-8 weeks as a rough guide. You need to notify your insurance company of your operation.
Swimming	From 6 weeks (straight kick only)
Cross trainer/Rowing machine	From 6 weeks
Road cycling	From 3 months
Golf	From 6 months (putting / pitching sooner)

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Patient Advice & Liaison Service (PALS):

If you have concerns or wish to give feedback about services, your care or treatment, you can contact the PALS office on the Ground Floor of our hospitals near the main reception.

Alternatively, you can send us your comments or suggestions on one of our comment cards, available at the PALS office, or on a feedback form on our website www.chelwest.nhs.uk/pals.

We value your opinion and invite you to provide us with feedback.

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