

Post Operative - Knee Osteotomy Surgery

Information for patients, relatives and carers

September 2025



Patients Consultant/Surgeon:

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Date of Surgery:

.....

Your weight-bearing restrictions are:

.....

Your range of movement restrictions are:

.....

This will be explained by your physiotherapist.

Signed:.....

What is re-alignment osteotomy?

The word osteotomy means to “cut a bone”. This operation corrects the alignment of the leg by changing the shape of the bone by cutting then holding it in place with plates and screws.

The bone cut could be above your knee, known as a distal femoral osteotomy (**DFO**), below your knee, known as a high tibial osteotomy (**HTO**) or both which is called a double level - osteotomy (**DLO**). Your weight-bearing status following the operation may vary depending on the type of procedure you've had and will be listed on the first page of this booklet.

Typically, HTOs are partial weight bearing so you will initially be protected weight bearing with crutches. The femur is more fragile so DFOs and DLOs are normally non-weight bearing with crutches initially, however this will be dependent on your consultants advice.

Goals of re-alignment surgery:

- Improve knee alignment
- Reduce knee pain
- Make daily activities less painful
- Increase the longevity of your knee
- Delay the need for further knee surgery
- Improve your quality of life

Recovery after surgery

Goals of initial rehabilitation phase:

- Restore knee range of movement, especially being able to straighten the knee.
- Regain thigh strength
- Reduce swelling
- Adequate pain control
- Regain normal walking pattern.

Discomfort

Post-operative pain, swelling, and bruising are a normal part of the recovery process. The muscles and tissues surrounding your knee will take time to heal. It is likely you will require pain relief medication on a reducing basis over several weeks following the surgery. Crutch use, ice, activity pacing and rest may help.

Following your discharge from hospital; you need to apply an ice pack three to four times daily for 15-20 minutes. You will be able to reduce the frequency after this time, but will find that you will benefit from ice therapy for up to three months to help manage the pain.

If you have any concerns regarding managing your pain, please discuss this with your GP.

Swelling

Swelling and inflammation is a normal part of the healing process. Dependant on your surgery this can last up to a few months. Swelling of the leg is different for everyone and may cause the leg to ache and feel very heavy.

Elevating your leg on a stool or on the bed will also help manage the swelling. **Do not** rest a pillow underneath your knee in a semi bent position. Although this may feel comfortable, it may cause problems with your movement and walking pattern.

Swelling, inflammation and sometimes blistering are normal changes after osteotomy surgery. If you believe this is excessive then you can contact your GP or go to your nearest A&E department

When should I seek help?

You should see your doctor urgently if you:

- Have a sudden increase in severe pain, swelling or tenderness in the calf which is getting worse and not just related to pain expected while performing the exercises.
- Have concerning pain, swelling or tenderness in the joint which is getting worse.
- Develop a high temperature and feel unwell.
- See fluid, pus or blood coming from the wound.
- Develop new numbness or tingling near to the joint.

Mobility and Walking Aids

After your operation, it may be necessary for you to use crutches to help you walk. Your physiotherapist will provide you with a pair of crutches and show you how to use them.

Once you are no longer using your crutches; please return them to the hospital. You will be provided with further guidance from the outpatient physiotherapy staff as to when it is appropriate to gradually stop using elbow crutches.

Stairs / Steps – if you are non-weight bearing your physiotherapist will show you how to complete the stairs safely



Going up stairs with a rail

Keep your crutch(es) on the step you are standing on.

Step up with your un-operated leg, then your operated leg and then bring your crutch(es) up onto the same step.



Going down stairs with a rail

Put your crutch(es) down first into the middle of the step below Step down with your operated leg and then follow by your un-operated leg.



Going up stairs without a rail

Keep your crutch(es) on the step you are standing on.

Step up with your un-operated leg, then your operated leg and then bring your crutch(es) up onto the same step.



Going down stairs without a rail

Put your crutch(es) down first into the middle of the step below Step down with your operated leg and then follow by your un-operated leg.

Exercises

It is important that you continue doing the exercises that have been given to you by the physiotherapist on the ward. These exercises should be completed **three to four times a day**.

It is normal to experience additional discomfort whilst doing these exercises and for up to an hour afterwards. Try taking your pain medication before exercising and using an ice pack afterwards.



Ankle pumps

Move your ankles up and down.

Repeat 10-20 times, 3-4 times a day



Heel Slides

Slide the heel of the operated leg along the floor and bend towards your buttock, trying to bend at your knee.



The physiotherapist on the ward would have explained and written on your front sheet of this leaflet what knee range of movement restrictions you have, do not exceed this range during this exercise.

Repeat 10 times, 3-4 times a day

Thigh muscle (quadriceps) strengthening



Pulling your foot towards you and push your knee downward against the bed.

Hold for 5-10 seconds, Repeat 10 times, 3-4 times a day

Straight leg raise



Straighten your operated leg, pull your toes towards you and lift your leg to about 2 inches above the bed.

Hold for 5-10 seconds, Repeat 10 times, 3-4 times a day



Seated leg raise

Sit in a chair, pull your toes up towards you and tighten your thigh muscles to straighten your knee slowly.

Hold for 5-10 seconds, Repeat 10 times, 3-4 times a day



Seated Knee bend

Whilst sitting with your thigh supported, slowly bend your knee as far as you can. If this is too uncomfortable or to increase the stretch; you can control the bend with your other foot.

Hold for 15-20 seconds, Repeat 5 times, 3-4 times a day



Gravity assisted knee stretch

If you are struggling to get your knee fully straight, you will benefit from leaving your knee in passive extension. Whilst you are sitting, rest with your heel on a pillow or stool without the back of your knee supported for as long as tolerated.

Outpatient Physiotherapy

Once you have left hospital, you will receive outpatient physiotherapy rehabilitation. You should receive your appointments to attend outpatient physiotherapy via post after you leave hospital. This will be approximately two weeks after discharge.

If you are a registered patient of a **Gateshead or Newcastle GP**, the **Tyneside Integrated Musculoskeletal Service (TIMS)** will be your physiotherapy provider.

If you are a registered patient of a **Durham GP**, the county Durham integrated MSK service will be your physiotherapy provider.

If you are an **out of area resident** (Registered to a GP out of Newcastle/Gateshead/Durham) the Queen Elizabeth Hospital will arrange your physiotherapy. It is important that you attend outpatient physiotherapy.

At this appointment the physiotherapist will:

- Assess the progress you have made since your discharge from the ward.
- Progress and guide on exercises.
- Assess your walking and progress to the most appropriate walking aid.
- Answer any queries you may have.

Follow up appointments can be arranged for physiotherapy at this appointment if the therapist feels it is necessary.

Please note: If you have not received notification of your follow up physiotherapy appointment/s within 2 weeks of leaving hospital, please ring **0191 445 2320** so we can check your referral.

On attending outpatient physiotherapy please wear comfortable clothing/ footwear that is suitable for exercise.

Transport

If you require an ambulance for transport to the group; you will be provided with a telephone number to ring and arrange this. This will be sent out with your physiotherapy appointment letter.

Community Rehabilitation

Occasionally people are discharged home using a walking frame. If appropriate; the ward physiotherapist may need to make a referral to the community team to review and progress rehabilitation at home. You will be contacted by either telephone or letter to advise when a visit can be arranged.

Please note: If you have not received notification of your follow up physiotherapy appointment/s within 2 weeks of leaving hospital, please ring 0191 445 2320 so we can check your referral.

Telephone Numbers

If you are at all worried by your knee please contact us:

During the hours of 8am – 8pm contact the Orthopaedic secretaries	0191 445 8500
During the hours of 8pm – 8am contact the Peter Smith Surgery Centre, Queen Elizabeth Hospital	0191 445 2028
During the hours of 08:00 – 16:30 contact the Physiotherapy Department	0191 445 2320
<p>During the hours of 8am-8pm. If you have a Gateshead or Newcastle GP, the TIMS will be your physiotherapy provider.</p> <p>If you have a query about your first appointment with TIMS please contact our booking team on 0191 445 2643</p> <p>If you are a current TIMS patient and have a query about your follow-up appointment please contact our local admin team on 0191 213 8800</p>	<p>Booking Team: 0191 445 2643</p> <p>Local Admin Team: 0191 213 8800 https://www.tims.nhs.uk/</p>
During the hours of 8.30am-12pm and 1-4pm. If you have a Durham GP, the County Durham Integrated MSK Service will be your physiotherapy provider.	Central booking team: 01388 455 200
Main Switchboard	0191 482 0000

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have.

If you have any suggestions or comments about your visit, please either speak to a member of staff or contact the patient advice and liaison service (PALS) on **0191 445 6129** (09.00 – 17.00, Monday to Friday).

You can also email PALS at ghnt.pals.service@nhs.net

Alternatively, you may wish to complain by contacting our complaints department:

Chief Executive,
Gateshead Health NHS Foundation Trust,
Trust Headquarters,
Queen Elizabeth Hospital,
Sheriff Hill,
Gateshead,
NE9 6SX

The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Data Protection

Any personal information is kept confidential. There may be occasions where your information needs to be shared with other care professionals to ensure you receive the best care possible.

In order to assist us to improve the services available, your information may be used for clinical audit, research, teaching and anonymised for National NHS Reviews and Statistics.

Further information is available via Gateshead Health NHS Foundation Trust website ([Privacy - QE Gateshead](#)) or by contacting the Data Protection Officer by telephone on 0191 445 8418 or by email ghnt.ig.team@nhs.net.

This leaflet can be made available in other languages and formats upon request