Your Operation Guide:

KNEE REPLACEMENT SURGERY

(Proximal Tibial Replacement)

Trusted Information Creator

Patient Information Forum



BONE CANCER RESEARCH TRUST

ONE GUIDE: FOR TWO AGE GROUPS

About this booklet

This booklet tells you about your operation - something called a knee replacement or proximal tibial replacement. This is where a bit of your leg is replaced. The booklet will also help you get moving again after your operation.

The booklet is for children and young people who are going to have a knee replacement.

- If you are **5 to 9 years old**, read pages **4 to 25.**
- If you are a young person who is **10 to 17 years old,** read pages **26 to 44.**
- If you are a parent or carer of a child or young person, who is having a proximal tibial replacement, you may wish to read pages **45 to 48.**

If you are not sure what some of the words mean, you can ask the person who looks after you to read this book with you. You can also ask your doctors or nurses if you have any questions. There is a glossary on **pages 50 and 51** that can help you too (a glossary is a list of tricky words and what they mean).

For young children:
5 to 9 years



Why do I need an operation?

A lump has grown in your leg. Doctors may call it a tumour or bone cancer.

To make you better, you will have an operation. Doctors will remove the lump and put a super-strong bit of metal in your knee. This is called a **proximal tibial replacement.** We like to call it a superhero knee because it helps you play and grow!



The day of your operation



- On the day of your operation, you will go to the hospital. You can take your favourite teddy with you.
- You will have a **sleepy medicine** (called an anaesthetic). This will make you have a superhero nap, so you won't feel anything during the operation.
- While you are sleeping, the doctors will take out the lump. Then, they will put in a super-strong bit of metal.
- When you wake up, you will see a bandage on your leg. Nurses, doctors and your family will all be there to look after you.



After the operation

- You might spend one night in a special room called the **High Dependency Unit (HDU)** where doctors and nurses check on you often.



- You might have some small tubes in you. These will help you wee without getting up and drain away any extra blood. These tubes will come out after a few days.
- Your knee may get a special protector called a knee brace, or you might have a hard cast. Think of them like a superhero shield, helping to protect your leg while it heals. We'll tell you more about knee braces and casts later in this booklet so you know what to expect.
- Feeling sleepy or sore is normal. The doctors will give you medicine to make you feel better. Always tell someone if you are in pain.

Who you'll meet in the hospital

This is your superhero squad who will help look after you:

My doctor is: _____

My surgeon is: _____

My specialist nurse is: _____

My play specialist is: _____

My physiotherapist is: _____

My occupational therapist is: _____

My social worker is: _____

My teacher is: _____

Here is some extra space for you to write down the name of anyone else you meet on the ward, or the names of any new friends you make in hospital.

Don't be shy to talk to your squad. Ask them any questions you want – they are all important. Write your questions here.

Getting moving

After your operation, you will work on getting stronger and moving again. This is part of your superhero adventure.

You'll meet people who will help you move. They are called **physios**. You might meet them on the same day as your operation or the next day. They will help you wake up your muscles and get going again.

Physios will:

- Show you gentle exercises to help your leg get better.
- Help you practise getting out of bed or off a chair.
- Help you get into your wheelchair. You may need to use this to help you for a while after your operation.
- Teach you how to use crutches, a walker or sticks. These will help you feel steady and safe.
- Show you how to use your new special support, called a knee brace.



Making things ok at home

You will also meet someone called an **occupational therapist.** They will make sure you can do things safely at home.

They will:

- Check that your chair, toilet and bed are easy for you to use.
- Get you cushions or grab bars to make things safer.
- Help you practise getting around on your own.



Playing and feeling brave

You might also meet someone called a **play specialist**. They will help you to feel calm. They will also talk to you about what will happen in the hospital.

You will be able to:

- Play with toys or dolls to help you find out what will happen in hospital.
- Play games and do fun things while you get better.
- Talk to them about how you are feeling if you feel worried or scared.
- Get busy while you get better.

Remember: Playing is also part of getting better!



Together, your physio, occupational therapist, and play specialist will help you get back to playing, learning, and having fun!

Let us learn more about you!

Try writing down a list of things you enjoy doing for fun.

When your play specialist comes to see you, show them your list so you can plan lots of fun things to do together.

Feelings

Superheroes have feelings too. They're just like you. You might feel: Nervous, Sad, Afraid, Brave. It's all normal. Tell someone how you feel. Draw it, act it, or say it out loud.



You could draw your own picture here:

Superhero safety tips!

Talk to your superhero squad first. They will teach you how to use your new superpower safely.

Every superhero has a different training plan! After your operation, you will be given one of three plans: Type A, Type B, or Type C.

Your plan tells you:

- how much your knee can bend
- which exercises you can do
- how to keep your knee safe while it heals

Don't worry—we explain each type below so you know exactly what to do.

You can find pictures of the different braces and knee positions on pages **19–20**, and the exercise guides on pages **21–23.**

Type A

What my knee brace does

Brace stays straight (locked) when I walk. It is my shield to keep my knee safe.

What I do each week:

Weeks 0–2

- Keep the brace locked straight for walking.
- Do not bend the knee.
- Easy bed moves: Rocket ankle pumps, bottom squeezes, crack the egg.
- Short walks with my helper and crutches.

Weeks 2–4

- My physio or family/carer bends my knee a little - up to 30 degrees.
- Keep the brace locked straight for walking.

Weeks 4–6

- My physio or family/carer bends my knee a little - up to 60 degrees.
- Keep the brace locked straight for walking unless my team says it is OK not to.

Weeks 6–8

- My physio or family/carer bends my knee a little - up to 90 degrees.
- Brace can bend over time while walking. This will be guided by my physio or family/carer.

Over 8 weeks

- Use knee brace and crutches less. My physio will help guide this.

Type B

What my knee brace does

Brace stays straight (locked) for the first 6 weeks when I walk. It keeps my knee safe.

What I do each week:

Weeks 0–6

- Keep the brace locked straight for walking.
- Bed moves: Rocket ankle pumps, bottom squeezes, crack the egg.
- Walk with my crutches.

Weeks 6–8

- Open the brace to 30 degrees for practicing knee bends.
- My physio bends my knee a little - 0 to 30 degrees.
- Brace can bend to 30 degrees while walking. This will be guided by my physio or family/carer.

Weeks 8-10

- Open the brace to 60 degrees for practicing knee bends.
- My physio bends my knee a little - 0 to 60 degrees.
- Brace can bend to 60 degrees while walking. This will be guided by my physio or family/carer.

Weeks 10-12

- Open the brace to 90 degrees for practicing knee bends.
- My physio bends my knee a little - 0 to 90 degrees.
- Brace can bend to 90 degrees while walking. This will be guided by my physio or family/carer.

Over 12 weeks

- Use knee brace and crutches less. My physio will help guide this.

Type C: Hard cast

What I wear

I will most likely need a hard cast for at least 6 weeks. No standing on this leg yet.

What I do each week:

Weeks 0–6

- No bending or standing on this leg.
- Keep the rest of me strong: bottom squeezes, the starfish, rocket ankle pumps, crack the egg.
- Move safely with my physio or family/carer.

Weeks 6-8

- Open the brace to 30 degrees for practicing knee bends.
- My physio bends my knee a little - 0 to 30 degrees.
- Brace can bend to 30 degrees while walking. This will be guided by my physio or family/carer.

If my surgeon says it's OK, I can start putting weight on my super-strong leg.

Weeks 8–10

- Open the brace to 60 degrees for practicing knee bends.
- My physio bends my knee a little - 0 to 60 degrees.
- Brace can bend to 60 degrees while walking. This will be guided by my physio or family/carer.

Weeks 10–12

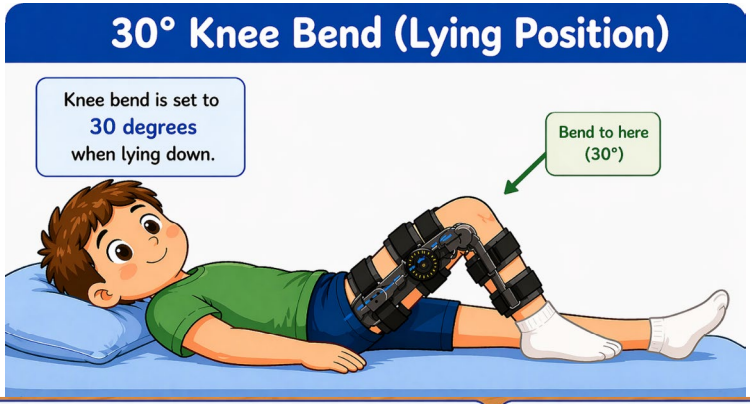
- Open the brace to 90 degrees for practicing knee bends.
- My physio bends my knee a little - 0 to 90 degrees.
- Brace can bend to 90 degrees while walking. This will be guided by my physio or family/carer.

Over 12 weeks

- Use knee brace and crutches less. My physio will help guide this.

Brace guide

30 degrees knee bend

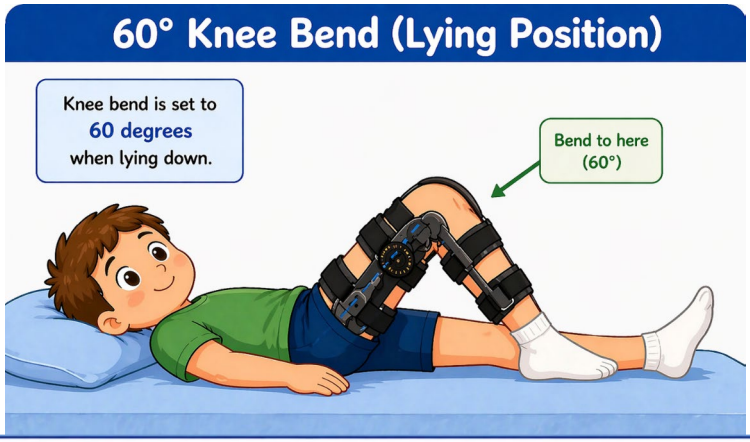


This means your knee is slightly bent – not straight, but not too much.

- Keep your whole leg resting on the bed.
- Do not lift your leg up.
- Only bend as far as your physio tells you.



60 degrees knee bend



This means your knee is bent halfway – more than 30°, but less than 90°.

Keep your heel on the bed. Only bend as far as your physio tells you.

Brace guide (continued)

90 degrees knee bend



Exercise booklet

Exercise is superhero training to give your new knee special powers. Without training, even the strongest heroes would not be able to beat the bad guys! Try some of these exercises as part of your superhero training.

There are two things to always remember.

The type of training plan you have been given **(A, B or C)?**

_____

How much weight you can put through your leg (ask your physio if you are not sure) _____

Do these exercises every day to make your special leg strong! You should do these with your special support (knee brace or hard cast) on.

Exercises in bed

Smell the flower, blow the candle



Breathe in through your nose. Pretend you smell a flower.

Hold for 2 to 3 seconds.

Breathe out through your mouth. Pretend you're blowing out a candle.



Do this __ times every hour.

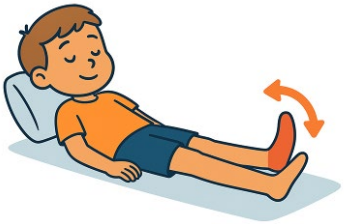


Rocket ankle pumps

Point and flex your feet.

Do this __ times every hour.





Strong bottom squeezes



These exercises help make your bottom muscles strong so they can support your hips and legs.

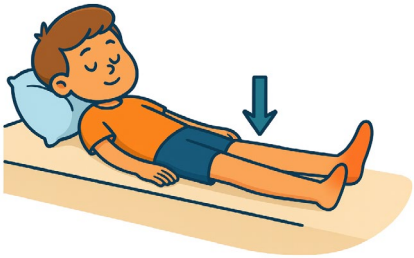
Squeeze your bottom.

Hold for 5 seconds.

Do this __ times.

Practice this __ times a day

Crack the egg



Pretend you have an egg under your knee.

Push the back of your knee down to crack it.



Hold for 5 seconds.

Do this __ times.

Practice this __ times a day.

The starfish



Point your toes up.

Then move your special leg out to the side, then slowly back in.

Do this __ times.

Practice this __ times a day.



My exercise diary

How to use this diary:
Each day, try to do your exercises. When you finish an exercise, colour or tick the box for that day. You can also circle the face that shows how you feel.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Smell the flower, blow the candle							
Rocket ankle pumps							
Strong bottom squeezes							
Crack the egg							
The starfish							

MOOD

Day 1



Day 2



Day 3



Day 4



Day 5



Day 6



Day 7



Crutches and stairs

Stairs can be tricky. You may need to use crutches to get up and down them. These are special sticks. Your superhero squad will help you learn some new moves.

To use crutches on stairs, remember your ABCs!

- ABC to go up
- CBA to go down

Going up:

Able leg
Brave leg
Crutch



Going down:

Crutch
Brave leg
Able leg



These pictures and ABC's help you remember what to do.

- Always go up and down one step at a time.
- If you have a handrail, use it and hold the crutch in your spare hand.

Test yourself below:

Go up the stairs with your _____ leg first.
After your crutch, go down the stairs with your _____ leg first.

Going home

Tick each box when you're ready.

Before you can go home, we need to check a few things:

- ☐ **Can you move around using your crutches or frame while someone stays beside you?**
- ☐ **Can you do all the moves your physio taught you, like smell the flower, blow the candle, rocket ankle pumps, bottom squeezes, the starfish?**
- ☐ **Can you make sure your special shield (knee brace or hard cast) is on before you walk?**
- ☐ **Can you do your ABC and CBA on the stairs?**

What happens next?

- Usually, 5 to 7 days after the operation, you will go home for a short break.
- In about 2 weeks, you will usually go to another hospital. This is to have some treatment. Sometimes your doctor may ask you to go straight back to the treatment hospital instead of going home first – that's OK and is planned.
- Pack all of your booklets like your physio booklet and exercise diary, and your crutches too. You'll need them wherever you stay!



For young people:
10 to 17 years



Why do I need this operation?

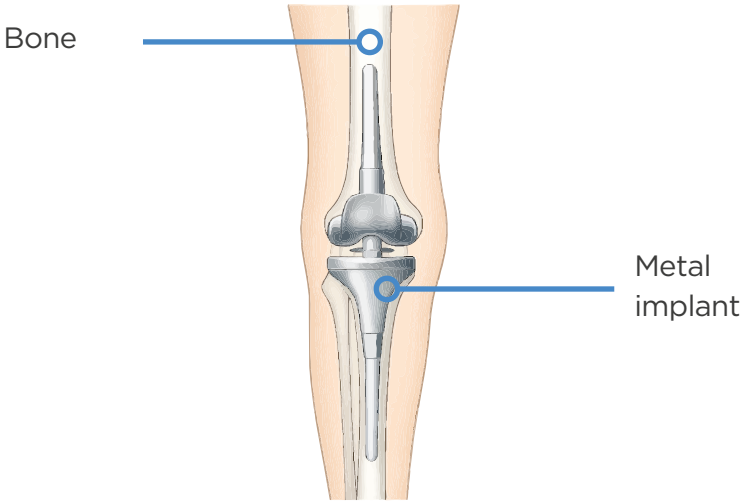
You have a tumour in the top part of your shin bone (the tibia), close to your knee. During surgery, the surgeon removes that section of bone (and part of the knee joint) and replaces it with a strong metal implant called an endoprosthesis.

- **"Endo"** means inside.
- **"Prosthesis"** means an artificial body part.

How does the endoprosthesis work?

- New knee joint: The implant replaces the part of your knee that was removed during surgery. It creates a new knee joint that allows your leg to bend and straighten again.
- Secure fit inside the bone: A long metal stem sits inside the remaining part of your shin bone.
    - It is either **cemented** in place, or
    - It has a special rough coating that encourages your own bone to grow onto it, making the bond even stronger over time.
- Muscle and tendon repair: During surgery, some of the muscles and tendons at the front of your knee need to be carefully moved and repaired. This helps protect the implant and rebuild the knee. At first, these muscles will feel weaker than before the operation, but your rehabilitation team will help you gradually rebuild your strength and movement.
- Everyday strength: Once healed, the implant helps you stand, walk, climb stairs, and return to many daily activities—though you will still need to follow your rehabilitation plan and any activity limits your surgeon gives you.

Remember: the operation removes the tumour, rebuilds your knee joint, and gives your leg the best chance to work well again while you continue the rest of your treatment.



What to expect before surgery

- You'll get an anaesthetic. It's a strong medicine that puts you into a deep sleep, so you don't feel or remember anything during the operation.
- While you're asleep, the surgeons fix your leg. They remove the tumour, add the metal implant and make sure everything is stable.
- Zero pain during the operation. The anaesthetic and pain-control medicines keep you comfortable the whole time.
- Waking up: You'll notice a bandage on your leg and maybe your favourite item (headphones, squish mallow, hoodie) nearby to help you chill.

What to expect after surgery

- **Groggy + sore = normal.** Your body's just rebooting. Pain meds will keep things under control.
- **Catheter:** A tiny tube that lets you pee without getting up. As soon as you're steady on your feet, it is removed.
- **Wound drain:** Another small tube near your knee that removes extra fluid and cuts down swelling. It's removed once the flow of fluid slows down.
- **High Dependency Unity (HDU) sleepover:** You might spend a night in the High Dependency Unit so doctors and nurses can keep a close eye on your pain, pulse and oxygen levels. Hit the call button if anything feels off.
- **First moves:** Soon, you'll be sitting in a chair, then cruising the corridor with crutches or a wheelchair. Physios will coach you through it. You may start with some exercises on the bed before starting to get out of bed.

Key takeaway: The first couple of days are all about rest, pain control, and getting used to your new leg. After that, every small step (literally) is progress.



Your supportive multidisciplinary healthcare team

Doctors: here to plan and carry out your operation safely, explain what's going to happen, and make sure you get the right care before, during, and after the op.

Nurses: here to take care of you each day, help manage your pain, check on your wound, give medications, and support you through every stage of your recovery.

Occupational therapists: here to help you with everyday activities like dressing, washing, or schoolwork, and find ways to make things easier as you recover.

Physios: here to help you build strength, get moving again and help you return to some activities and your hobbies! They will teach you exercises and how to walk with walking aids such as a Zimmer frame or elbow crutches.

Play specialists: here to help you feel relaxed and confident through play, games, and creative activities — making hospital feel a bit more like home while you get better.



Enough about us, let's hear about you!

Try writing down a list of things you enjoy doing for fun

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

When your play specialist comes to see you show them your list so you can plan lots of fun things to do together.

Proximal Tibial Replacement (PTR) categories

There are 3 categories for your recovery from PTR. Please circle your category (A, B, or C) and follow the colour-marked pages. Each category has different instructions, so stick to the one meant for **you**.

Words in **bold** are explained in the glossary on pages **50-51** They are important to know but can be tricky, so feel free to ask questions! More information about knee bends and exercises can be found on pages **37-40.**

Category A

Your physio will fill this in:

Weightbearing: _____

Weeks 0–2 (Protect and move safely)

- Brace locked straight for walking. No bending of your operated knee.
- Bed exercises (breathing, ankle pumps, bottom squeezes, static quads).
- Walking with aids, like crutches, as advised by your team.

Weeks 2–4 (Begin gentle bend)

- Passive knee bend between 0 to 30 degrees. Your physio or family/carer will help you move your knee.
- Brace stays locked for walking.
- Continue bed exercises.

Weeks 4–6 (A bit more bend)

- Passive knee bend between 0 to 60 degrees.
- Brace stays locked for walking unless your team says otherwise.

Category A (continued)

Weeks 6–12 (Build control)

- Progress bend between 0 to 90 degrees. Your team will help guide this.
- Gradually unlock your brace for walking.
- Start doing active bends when the team says go. This means you can finally move it.
- Walking practice with an aid, such as crutches.

Over 12 weeks

- Wean off using brace and aids.
- No high-impact or contact sports. This helps keep your new knee safe.

Category B

Your physio will fill this in:

- Weightbearing: _____

Weeks 0–6 (Protect)

- No knee movement: brace locked straight.
- Bed exercises (breathing, ankle pumps, bottom squeezes, static quads).

Weeks 6–8 (Start bending)

- Unlock brace to 30 degrees for exercises and mobility as instructed by your team.
- Begin passive knee bending - 0 to 30 degrees.
- Strengthening exercises around the hip and ankle.

Weeks 8–10

- Unlock brace to 60 degrees for exercises and mobility as instructed by your team.
- Increase passive knee bend to 0 to 60 degrees.
- Strengthening exercises around the hip and ankle.

Weeks 10–12

- Unlock brace to 90 degrees for exercises and mobility as instructed by your team.
- Increase passive knee bending to 0 to 90 degrees.
- Reduce to one crutch or stick as long as you feel safe.

Over 12 weeks

- Gradually wean off using brace or aids. This will be guided by your physio.
- Gradually progress to an active knee bend.
- No high-impact or contact sports. This helps keep your new knee safe.

Category C: Hard cast

Your leg will be in a hard cast for 6 weeks. This is like a super-strong shell that keeps your leg safe and still.

- Weightbearing: Non-weight bearing for 6 weeks.

Weeks 0–6 (Protect and keep rest of you strong)

- Do not stand or walk on your operated leg.
- No knee movement during this phase.
- Non-weight bearing using 2 crutches or Zimmer frame. Your physio and occupational therapist will help you find a safe way to move around.
- Build strength in other parts of the body: bottom squeezes, hip abduction, ankle pumps, and any other exercises taught to you by your physio.

Weeks 6–8

- Your cast will be taken off by the doctors. You will now wear a knee brace.
- Unlock brace to 30 degrees for exercises and mobility as instructed by your team.
- Check if you are allowed to start putting weight on your operated leg by speaking with your doctor or physio.
- Start gentle weight-shift and balance exercises when allowed to put weight on your operated leg.

Weeks 8-10

- Unlock brace to 60 degrees for exercises and mobility as instructed by your team.
- Increase passive knee bend to 0 to 60 degrees.
- Strengthening exercises around the hip and ankle as shown by your physio.

Category C: Hard cast (continued)

Weeks 10–12

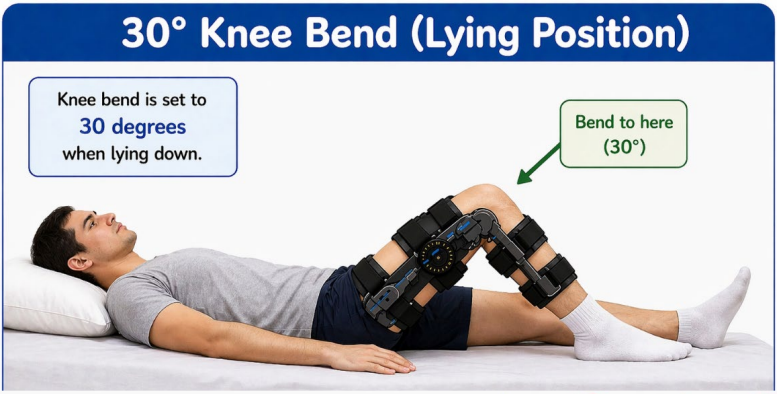
- Unlock brace to 90 degrees for exercises and mobility as instructed by your team.
- Increase passive knee bending to 0 to 90 degrees.
- Continue your strengthening exercises around the hip and ankle as shown by your physio.

Over 12 weeks

- Gradually wean off using brace or aids. This will be guided by your physio.
- Gradually progress to an active knee bend.
- No high-impact or contact sports. This helps keep your new knee safe.

Brace guide

30 degrees knee bend



This means your knee is slightly bent – not fully straight, but within a small range.

- Keep your whole leg resting on the bed.
- Do not lift your leg.
- Only bend as advised by your physiotherapist.



Do not lift your leg.



Keep your leg supported on the bed.

60 degrees knee bend



This means your knee is bent halfway – more than 30°, but less than 90°.

- Keep your heel on the bed.
- Do not lift your leg.
- Only bend as advised by your physiotherapist.



Do not lift your leg.



Keep your leg supported on the bed.

Brace guide (continued)

90 degrees knee bend



This means your knee is bent to a right angle – not straight, and not beyond 90°.

- Keep your whole leg supported on the bed.
- Do not lift your leg.
- Only bend as advised by your physiotherapist.



These instructions are general guidance only. Always follow the specific advice given to you by your healthcare team.

Important Reminders

- Follow the knee bend set by your surgeon or physiotherapist.
- Gradually increase your range as advised by your physiotherapist.
- Stop and seek advice if you experience increased pain, swelling or discomfort.

Exercise booklet

Bed exercises

Do these every day to make your leg strong!
Ensure your knee brace is on.

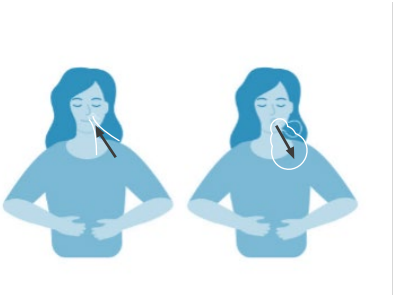
Deep breathing

Breathe in through your nose.

Hold for 2-3 seconds.

Breathe out through your mouth.

Do this __ times every hour.



Ankle pumps

Point and flex your feet.

Do this __ times every hour.

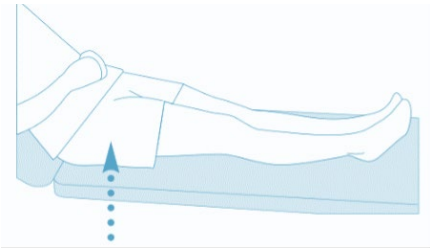


Bottom squeezes

Squeeze your bottom together.

Hold for 5 seconds.

Do this __ times.
Practice this __ times each day.

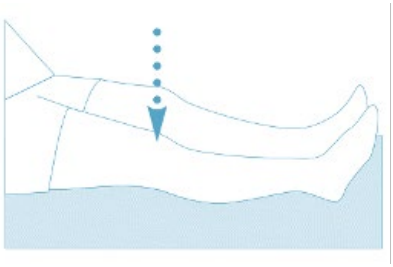


Static quads

Push the back of your knees down to the bed.

Hold for 5 seconds.

Do this __times.
Practice this __ times each day.



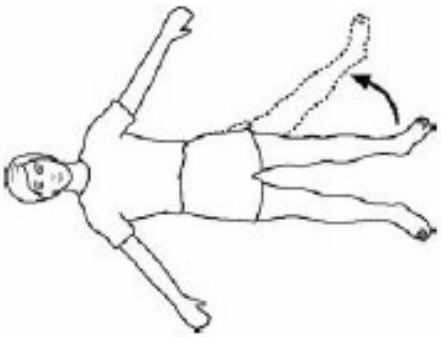
Hip abduction

Toes pointing upwards, move your special leg out to the side slowly.

Ensure your knee brace is on.

Do this ___ times.

Practice this ___ times each day.



Side lying hip abduction

Lie on your non-operated leg and place a pillow between your legs.

Ensure your knee brace is on.

Lift your operated leg up.
You will need some help at first.

Do this ___ times.

Practice this ___ times each day.



My exercise diary

How to use this diary:
Each day, try to do your exercises. When you finish an exercise, colour or tick the box for that day.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Deep breathing							
Ankle pumps							
Bottom squeezes							
Static quads							
Hip abduction							
Side lying hip abduction							

MOOD

Day 1


Day 2


Day 3


Day 4


Day 5


Day 6

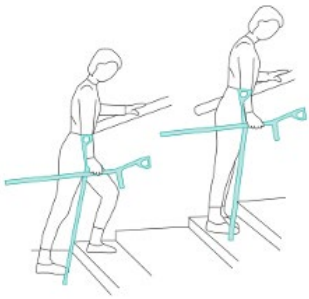

Day 7


Step up strong: Easy guide to stairs after surgery

Always go up and down one step at a time. If you have a handrail, then use it and hold your other crutch in your spare hand.

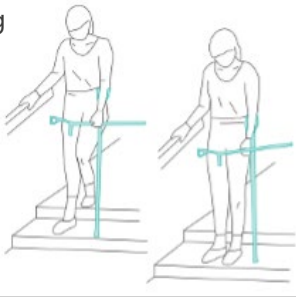
Going up:

Able leg
Bad leg
Crutch



Going down:

Crutch
Bad leg
Able leg



What can you do when you go home?

- Walk with elbow crutches.
- Go up and down the stairs safely (if you aren't already set up downstairs).
- Get on and off the chair by yourself.
- Do your home exercise programme.
- Beware of **Do's and Don'ts.**

You're the expert on how you feel. If something hurts, feels weird, or you're just not sure what's normal—say something or ask someone! In fact, asking questions is really smart.

Commonly asked questions for young people (aged 10 to 17 years)

Will I feel pain after the operation?

Yes, **some pain is normal while** your body heals, but you'll get medicine to help manage it. Always let your team know if it's too much, they can help!

Can I do sports again?

No contact or high-impact sports like football, rugby, etc, but you may do **non-impact sports** such as swimming, cycling, yoga and gym (light) with approval.

When can I go back to school?

Most people are ready **around 6–8 weeks** after surgery. It depends on your energy, how your wound is healing, and how you're getting around. Some go back earlier with a wheelchair or a phased return (shorter days, extra breaks). We'll plan what feels right for you with your team and school.

When can I drive again?

You should not attempt to drive until you are cleared by your surgeon, your pain has subsided, and you feel confident in your own ability. Please discuss returning to driving with your surgeon, who will recommend that you contact the **DVLA** after your operation. You may also need to inform your insurance company of your operation. We'll plan it together, so it feels safe for you.

Will I have a scar?

Yes - but it **fades.** Early on it can look red or bumpy. Over the next 6–12+ months, it usually softens and lightens. Once your wound is **fully healed**, gentle **scar massage** with plain moisturiser can help it feel softer and flatter. Your physio can show you how and when to start.

Will I need crutches or a wheelchair for a long time?

Most people use crutches for about 6–12 weeks. It depends on your pain, strength, balance, and any weight-bearing rules from your team. We'll help you step down safely—usually to one crutch, then none—when you can walk without a limp and feel steady. Some people need longer, some shorter. Both are normal. Always follow your surgeon's or physio's advice.

Who can I talk to if I'm feeling overwhelmed or emotional after surgery?

Big feelings after operations are normal, and you won't be a bother. Start with the people around you: nurses, your Clinical Nurse Specialist (CNS), doctors, physio, occupational therapist, psychologist, social worker, youth/play specialist. Outside the hospital, you can speak to other parents/carers, friends, your GP, school/college tutor or pastoral team.

The Bone Cancer Research Trust (BCRT) also offers Information, support services, and opportunities to connect with other young people and families affected by bone sarcoma.

Want to meet others who "get it"? Your CNS can link you to peer support groups. Most chats are confidential—we only share if we're worried about your safety.

Advice for parents and carers

Early-stage tips (0–6 weeks)

- Provide structure: assist with medication, physiotherapy, food, and rest.
- Encourage participation but avoid pressure and be mindful of shoulder precautions.
- Use rewards and visual charts if helpful.

Communication

- Be honest but positive: “It might feel sore at first, but it gets better”.
- Let them ask questions. Keep explanations age-appropriate.
- Acknowledge their emotions – don’t dismiss them.

Ongoing support

- Support consistent physio and scar massage.
- Reinforce pacing and energy management.
- Help them maintain a connection with school and friends.
- Prepare for the transition back to school and social life gradually.

Commonly asked questions

What should we expect immediately after surgery?

Patients may wake up with tubes (drains, catheters), and pain will be managed with medications. Some may spend time in intensive care depending on the complexity of the surgery.

How long is the hospital stay?

It varies, but patients typically stay between 5-7 days. Recovery continues at home with support from physiotherapists and occupational therapists.

Who should we contact if there’s a problem after going home?

If you notice any signs of complications, such as increased pain, swelling, redness, fever, or wound issues, it’s important to act quickly. A list of possible complications, what to do about them and who to contact can be found on pages **46-48.**

Advice for parents, carers and healthcare professionals

Possible issue	What to do (action)
Tumour recurrence or progression of disease	• Contact the RNOH Clinical Nursing Specialists (CNS) team • Carry out/arrange screening for new fatigue, fever, night-sweats, new swelling or lump, or weight-loss
Pain	• Decrease activity • Ensure adequate pain relief • Elevate the leg regularly • Reduce weight-bearing; use walking aids as needed • Use pacing strategies • Modify exercise programme if required • **If pain persists, refer back to the surgical team or GP**
Swelling	• Keep the leg elevated regularly • Apply cryotherapy if skin sensation is normal and there are no contraindications • Reduce time spent standing • Use pacing • Use walking aids • Do circulatory exercises • If swelling goes down overnight: monitor • **If swelling does not go down overnight: refer back to the surgical team or GP**

Advice for parents, carers and healthcare professionals

Possible issue	What to do (action)
Wound issues (inflammation, bleeding, infection)	• **Refer to the surgical team or GP** • Look for red-flag symptoms: pain, fever, redness, wound oozing, rash, itching, general feeling of malaise
Numbness / altered sensation	• Review immediate post-op status if possible • Ensure swelling is controlled • If sensation loss is new or worsening, **refer back to surgical team or GP** • If sensation is unchanged but concerning, **inform the surgical team** and refer back if it deteriorates
Thromboembolic disorders	• Complete a Wells score **(Doctor Only Test)** • Score ≥ 2 (DVT likely): contact surgical team **immediately** for scan and D-dimer test • Score ≤ 1 (DVT unlikely): contact surgical team to discuss whether D-dimer test is needed
Dislocation	• Contact the surgical team **immediately**

Who should I contact if I have a problem after going home?

If you are worried about your recovery, have new symptoms, or think something is wrong, please contact your healthcare team.

Clinical Nurse Specialist (CNS): .....

Surgical Team: .....

Therapy Team: .....

For urgent concerns, such as severe pain, breathing difficulties, signs of infection, or sudden changes in your condition, follow the advice provided by your healthcare team or visit your nearest Emergency Department.



Tell us what you think about this booklet

At the Royal National Orthopaedic Hospital, Stanmore, we would love to hear your feedback. Your comments help us improve this resource for future children, young people, and families.

Feedback Email: rnoh.cyptherapies@nhs.net
Feedback Telephone Number: 020 8909 5821 / 5830

Further information and support

The Bone Cancer Research Trust (BCRT) also offers information, support, and opportunities to connect with other young people and families affected by bone sarcoma.

Contact BCRT's Support and Information Service:
Call: 0800 111 4855 (Monday to Friday, 9am to 5pm)
Email: support@bcrt.org.uk
Visit: bcrt.org.uk/support

Glossary

Some words in this booklet might be new. Here is what they mean!

If you hear a word you do not understand, you can always ask your doctor, nurse, physio, or another member of your healthcare team.

Abduction: Moving your leg out to the side, away from your body.

Active movement: Your move your leg by yourself using your muscles (you are doing the work).

Anaesthetic: A special medicine that makes you fall into a deep sleep during your operation. This means you will not feel anything.

Bandage: A soft covering placed over your wound to protect it and help it heal.

Catheter: A small tube that helps drain wee from your bladder while you rest after surgery.

Crutches: Special sticks that help you walk while your leg is healing.

Cryotherapy: A treatment that uses cold, such as ice packs, to help reduce pain and swelling after surgery.

Endoprosthesis: A strong metal implant placed inside your body to replace a piece of bone that was removed during surgery.

High Dependency Unit (HDU): A special hospital ward where nurses and doctors watch you closely after surgery to make sure you are recovering well.

Implant: A strong medical part placed inside your body to replace bone or support healing.

Limb: An arm or leg.

Limb-sparing surgery: An operation where doctors remove the tumour but keep your arm or leg.

Multidisciplinary Team (MDT): A group of healthcare professionals who work together to plan the best care for you.

Glossary continued

Occupational therapist (OT): A therapist who helps you do everyday activities like getting dressed, using the bathroom, or getting around safely.

Oncologist: A doctor who specialises in treating people with cancer.

Operation: A medical procedure where doctors fix a problem inside your body while you are asleep.

Pacing: A way of managing your energy by balancing your exercises with adequate rest – so you do not get too tired.

Passive movement: Your leg is moved for you by your physio or a helper while you stay relaxed.

Physiotherapist (Physio or PT): A person at the hospital (healthcare professional) who helps you get stronger and move better using exercises and practice.

Play Specialist: A person at the hospital (healthcare professional) who plays using toys, games, and activities with you to help you understand what is happening and feel less worried.

Proximal Tibial Replacement: An operation where part of your shin near the knee is replaced with a strong metal implant.

Rehabilitation: The process of helping your body get stronger and move again after surgery.

Sarcoma: A type of cancer that starts in the bones or soft tissues of the body.

Screening: A check or test used to look for signs of illness or problems early.

Surgery: Another word for an operation.

Tibia: Your shin bone.

Tumour: A lump of abnormal cells that grows in the body.

Weight-bearing: How much weight you are allowed to put on your leg when standing or walking

Wound drain: A small tube that removes extra blood or fluid from your wound while it heals.

Disclaimer:
The authors and reviewers of this information are committed to producing reliable, accurate and up to date content reflecting the best available research evidence, and best clinical practice. We aim to provide unbiased information free from any commercial conflicts of interest.

This article is for information only and should not be used for the diagnosis or treatment of medical conditions. If you are worried about any symptoms, please consult your doctor.

© All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recordings or any information storage and retrieval system without permission in writing from the Royal National Orthopaedic Hospital and Bone Cancer Research Trust.

This guide was co-produced by the RNOH Ortho-Oncology Therapy Team and the Bone Cancer Research Trust. If you have any feedback about this guide, please send it to RNOH whose details are listed on page 49.

Visit: bcrt.org.uk

/BoneCancerResearchTrust
Bone Cancer Research Trust
@bonecancerresearchtrust
@bonecancerresearch

NHS
Royal National Orthopaedic Hospital
NHS Trust

Brockley Hill, Stanmore, Middlesex, HA7 4LP
www.rnoh.nhs.uk

BONE CANCER RESEARCH TRUST

Trusted Information Creator
Patient Information Forum

©Bone Cancer Research Trust 2026
10 Feast Field, Horsforth, Leeds LS18 4TJ
Registered charity in England & Wales: 1159590

Review dates for this booklet:
Version 1 produced 10/26
Next review due: 10/29