



High Tibial Osteotomy (HTO) surgery

Reviewed: February 2024
Next review: February 2025
Version 6

> About this leaflet

The purpose of this leaflet is to provide you with useful advice and general guidance to help in the recovery following your high tibial osteotomy surgery.

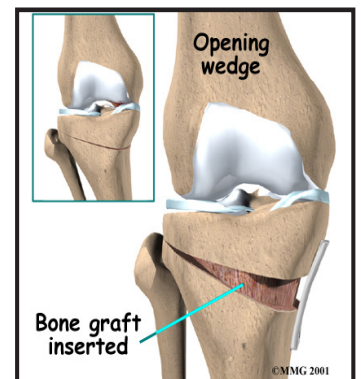
All information provided in this leaflet is for guidance only and is not exhaustive. Detailed, individualised instruction will be provided by your surgeon, physiotherapist and multi-disciplinary team.

> What is High Tibial Osteotomy (HTO) surgery?

High Tibial Osteotomy (HTO) is a surgical procedure to correct the position of your leg and reduce the pain you have in your knee.

There are a variety of approaches to carrying out this procedure and your surgeon will discuss the best option with you.

One of the most common procedures carried out in this hospital is a wedge osteotomy. During a wedge osteotomy a triangular wedge of bone is taken from the outer side of the tibia (the bone beneath the knee). This helps to position the bone and helps your weight to pass through the outer undamaged part of the knee.



> Why do I need HTO surgery?

Damage to the inner-knee can cause osteoarthritis. Such damage may be the result of:

- a sporting injury;
- rickets;
- poliomyelitis (disease caused by infection with the poliovirus); or
- direct trauma to the knee.

Osteoarthritis can be painful, limiting the function of your knee and quality of life.

The aims of HTO surgery are to:

- correct poor alignment of the knee;
- prolong the life of the knee joint, delaying the need for Total Knee Replacement surgery;
- reduce pain;
- improve function; and
- improve quality of life.

Pre assessment clinic

You will be examined by a surgeon, who will discuss the planned procedure with you. You will have an opportunity to ask any questions you may have. You will be asked to sign a consent form stating that you have understood what is involved and are you are willing to go ahead with the surgery.

You may also be pre-assessed on the same day, however on occasion you may be asked to return to the hospital for this at a later date.

Your pre-assessment will be carried out by nursing staff but you may see other healthcare professionals during this appointment, such as ward doctor, anaesthetist, specialist nursing staff or physiotherapist.

The nurse will check your temperature, blood pressure, pulse, height and weight. A sample of urine will be requested when you arrive and swabs will be taken for MRSA testing.

Additional tests may be required, such as:

- blood samples;
- an x-ray;
- an MRI scan; and
- a tracing of your heart.

Admission

You will usually be brought in early on the morning of your operation. You will be seen by the anaesthetist before surgery, who will answer any concerns you may have and explain what will happen. You will be asked to stop eating at midnight on the morning of your operation and stop taking fluids 2 hours before you go to theatre. You will be told your fasting instructions before admission.

Day of surgery

The procedure lasts for about an hour, after which you will remain in the theatre recovery area until you are ready to go back to the ward.

Once you are back on the ward the staff will continue to monitor your progress. You will be able to eat and drink on return to the ward. Some patients are able to get up with the physiotherapists later in the day; others stay in bed until the following morning.

After surgery

- You will be assisted out of the bed to sit in the chair, usually using a Zimmer Frame with the assistance of 2 members of staff. You may not be able to take your full weight on your operated leg – your physiotherapist will discuss this with you.
- You will have a wash and change your clothing.
- You will be visited by a member of the pain control team to ensure you are on adequate analgesia.
- You will be assessed by the physiotherapist to ensure you are walking safely, progressing from the Zimmer Frame onto elbow crutches; you may not be able to take your full weight on your operated leg – your physiotherapist will discuss this with you.
- The physiotherapist will teach you some exercises, as shown on page 7.
- Arrangements for your discharge home will begin.

You will be advised to follow **P.R.I.C.E.** guidelines (below) and apply ice to your knee at regular intervals to reduce swelling and pain.

Before discharge, you will be given pain relieving medication and you will be advised on when and how often to take it.

PRICE guidelines

- Protect:** Use of elbow crutches as pain allows.
- Rest:** When resting your leg, make sure your knee is straight. **Do not** rest the back of your knee over a pillow.
- Ice:** Apply ice for 20 minutes to reduce swelling. Always place ice pack over a damp cloth to protect your skin from an ice burn.
- Compression:** You will have a compression bandage in situ. Usually this is removed after 24 hours. Follow advice from your nursing staff.
- Elevation:** To control your swelling, elevate your leg (toes above your nose) for 30 minutes. Ensure your whole leg is supported with 3 or 4 pillows from your heel downwards. Lie back on your bed. Repeat this 3 times daily.

Discharge from hospital

- You will have a blood test and an x-ray on the first or second day after your surgery.
- The physiotherapist will have completed your exercises and shown you how to go up and down stairs safely.
- You will have seen the pharmacist, who will explain any changes in your medication.
- You will be given a letter to be taken to your General Practitioner (GP).
- An appointment to be seen at clinic will be posted out to your home.

➤ Stairs technique

Walking upstairs

Stand at the bottom of the stairs. Hold on to a rail and use elbow crutches as needed. When going up the stairs, follow this sequence:

- Place your hand firmly on the rail and your crutch close to your side. Bend your affected leg up behind you.
- Push your weight firmly through your hands and hop your good leg onto the step.
- Finally, bring your crutches up to join your foot on the step.

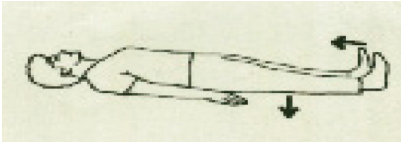
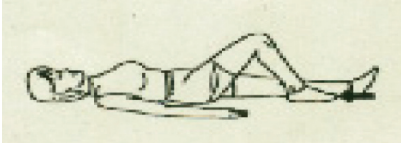
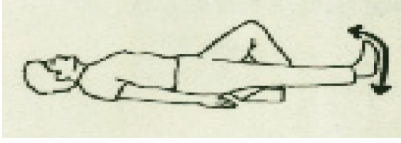
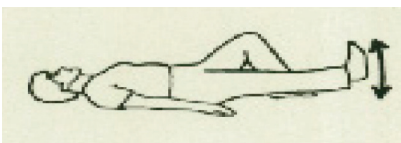
Walking downstairs

Hold on to a rail and use elbow crutches as needed. When going down the stairs, follow this sequence:

- Place your crutches onto the step you are going to move down to.
- Place your affected leg out in front over the next step. Next, push your weight firmly through the crutches and/or rail.
- Finally, hop down with your good leg onto the step below.

Repeat this sequence for each step until you reach the bottom.

➤ Physiotherapy exercises

<ul style="list-style-type: none"> • Lie on your back with your legs straight. • Bend your ankles and push your knees down firmly against the bed. • Hold for 5 seconds and relax. • Repeat 15 times, 4 times a day. 	
<ul style="list-style-type: none"> • Lie on your back. • Bend your knee as far as is comfortable, and then straighten your knee again. • Repeat 15 times, 4 times a day. 	
<ul style="list-style-type: none"> • Lie on your back. • Put a rolled up towel under your knee. • Pull your toes up towards you, tighten your thigh muscle and straighten your knee (keep your knee on the towel). • Hold for 5 seconds then slowly lower your leg. Repeat 15 times, 4 times a day. 	
<ul style="list-style-type: none"> • Lie on your back. • Straighten your leg by pulling your toes up and pushing your knee down. • Lift your leg a few inches off the bed. • Hold for 5 seconds then slowly lower your leg. Repeat 15 times, 4 times a day. 	

Contact

When at home, if you have any issues relating to your surgery, wound or rehabilitation, contact the Arthroplasty team on 0141 951 5521, Monday-Friday, 9am-5pm or call 0141 951 5000 and ask to be put through to the Arthroplasty page holder.

All of our publications are available in different languages, larger print, braille (English only), audio tape or another format of your choice.

我們所有的印刷品均有不同語言版本、大字體版本、盲文（僅有英文）、錄音帶版本或你想要的另外形式供選擇。

كافة مطبوعاتنا متاحة بلغات مختلفة و بالأحرف الطباعية الكبيرة و بطريقة بريل الخاصة بالمكفوفين (باللغة الإنكليزية فقط) و على شريط كاسيت سمعي أو بصيغة بديلة حسب خيارك.

Tha gach sgrìobhainn againn rim faotainn ann an diofar chànanan, clò nas motha, Braille (Beurla a-mhàin), teip clàistinn no riochd eile a tha sibh airson a thaghadh.

हमारे सब प्रकाशन अनेक भाषाओं, बड़े अक्षरों की छपाई, ब्रेल (केवल अंग्रेज़ी), सुनने वाली कसेट या आपकी पसंदनुसार किसी अन्य फॉरमेट (आरएफ) में भी उपलब्ध हैं।

我們所有的印刷品均有不同語言版本、大字體版本、盲文（僅有英文）、錄音帶版本或你想要的另外形式供選擇。

ਸਾਡੇ ਸਾਰੇ ਪਰਚੇ ਅਤੇ ਕਿਤਾਬਚੇ ਵਗੈਰਾ ਵੱਖ ਵੱਖ ਭਾਸ਼ਾਵਾਂ ਵਿਚ, ਵੱਡੇ ਅੱਖਰਾਂ ਅਤੇ ਬ੍ਰੇਲ (ਸਿਰਫ਼ ਅੰਗਰੇਜ਼ੀ) ਵਿਚ, ਆਡੀਓ ਟੇਪ 'ਤੇ ਜਾਂ ਤੁਹਾਡੀ ਮਰਜ਼ੀ ਅਨੁਸਾਰ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ ਵੀ ਮਿਲ ਸਕਦੇ ਹਨ।

ہماری تمام مطبوعات مختلف زبانوں، بڑے حروف کی چھپائی، بریل (صرف انگریزی)، سنے والی کست یا آپ کی پسند کے مطابق کسی دیگر صورت (فارمیٹ) میں بھی دستیاب ہیں۔



 : 0141 951 5513