

## **Rugby St Cross: Orthopaedic Physiotherapy Department**

# **High Tibial Osteotomy (HTO) / Distal Femoral Osteotomy (DFO)**

This information is for patients following a Femoral or Tibial Osteotomy. This operation corrects the alignment of the leg by cutting through the bone, changing the shape of it and then holding it with a plate and screws. The operation is performed when there is early wear in one side of the knee in order to slow down the wear and 'buy time' for the knee. It is also performed in certain ligament injuries where instability of the knee is associated with bowing of the leg.

Wear to the inner knee – Opening wedge in tibia (Shin)

Wear to the outer knee – Opening/closing wedge in femur (Thigh)

### **Pain and Swelling Management**

A nerve block may be used during the operation which means that immediately after the operation your knee and leg may feel heavy and numb. This may last for a few hours. You will be given pain killers after the operation in addition to this. Please take them as you are advised. You may have some discomfort for several weeks after the surgery but taking your painkillers regularly for the first few weeks will make you feel more comfortable and enable you to do your exercises.



## Patient Information

Your cryocuff (ice) should be used whenever you are resting with your leg elevated.

The water in the cuff should be emptied and refilled when the cuff feels warm – this could be as frequent as every 20 minutes.

Ask for the ice in the bucket to be replaced when melted.



When you go home, you will be able to take the “cuff” part of your cryocuff with you. Ensure this is full of water before you leave and it can then be placed in the fridge (not freezer) for an hour and used as a cold pack for 20 minutes.

## Wound

Depending on the location of your operation, you will have an incision over either the thigh bone close to your knee, or your shin bone, close to your knee. If you have stitches, you will be given instructions by the nursing staff for their removal at your GP surgery. They will also give you the information regarding general wound care.

## Exercises

The success of your operation will often depend on the amount of effort you are prepared to put into your rehabilitation.

Although your knee may feel sore after the operation it is vital that you start completing the exercises in order to build up the muscles around your knee, and to regain the range of movement after the surgery.

Before being discharged you will be seen by a physiotherapist who will explain the exercises you need to do.

It is essential that you do the recommended exercises **5 times per day** or you may not make a full recovery. You may experience some discomfort whilst completing the exercises, this is normal.

## Patient Information

### Deep breathing exercises

Take a deep breath in through your nose, hold for a couple of seconds and then breathe out through your mouth. **Complete these three times every hour.**

### Foot and ankle exercises

Pump your ankles up and down fairly briskly for 10 seconds. Then complete circles one way for 10 seconds, and circles the other way for 10 seconds. **Complete these hourly.**

### Heel prop

Rest your heel on a rolled towel or 2 pillows so that your knee is not supported. Allow your knee to straighten in this position for 10 minutes.



### Static quadriceps

Lie on your back with your knee straight. Point your toes up towards you, and try to push your knee down firmly into the bed. Hold for 10 seconds. **Repeat 10 times.**

During this exercise, you should feel your patella (kneecap) move upwards towards your hip. Due to the area your surgery has occurred, this may feel a little uncomfortable but it is important to remember you will not be doing your knee any harm.



## Patient Information

### Static hamstrings

Lie on your back with your knee slightly bent. Push down firmly into the bed with your heel. Hold for 10 seconds. **Repeat 10 times.**



### Range of movement exercises

Lie or sit on the bed. Place a plastic bag under your heel. Aim to bend your knee by bringing your heel up towards your hip. **Repeat 10 times.**



### Patella glides

Hold your knee cap as in the picture below. Push the knee cap over towards your other knee, outwards away from the other knee, down towards your toes and up towards your hip. **Repeat 10 times in each direction.**



### **Mobilisation**

You will require a knee brace to be used at all times when moving around for the first 4-6 weeks to protect the osteotomy site. Your Physiotherapist will let you know regarding the timeframe. For the first 2-3 weeks, your surgeon may recommend that you lock the hinges of the brace when walking, but after this time leave the hinges unlocked to help regain a normal walking pattern.

**The amount of weight you are able to put through your operated leg is decided by your surgeon.**

Your physiotherapist will teach you to walk with elbow crutches as requested by your surgeon. Crutches are normally used for at least 6 weeks.

### **The T-ROM Brace**

As mentioned, you will be required to wear a brace at all times. As comfort and confidence allows, you can take the brace off at night after 2-3 weeks. Please refer to the '**Your T-ROM Brace**' leaflet for instructions specific to you and your operation as some instructions may change.

### **Discharge**

You will usually be able to go home the day after your operation. You will need to arrange for someone to drive you home you should try to have a responsible adult to stay with you for the first 24 hours.

Physiotherapy is essential after the operation and you will be contacted with an urgent outpatient physiotherapy appointment after your discharge. If you have not heard from outpatient physiotherapy within 1 week, please contact the department.

If you have any concerns about your wounds between therapy appointments please contact the hospital.

## Patient Information

### Further Information

**If you have any queries or concerns please contact:**

Rugby Physiotherapy Orthopaedic Department Telephone: 01788 663054

University Hospital Coventry and Warwickshire Telephone: 024 7696 6013

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact and we will do our best to meet your needs.

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