Tibial Tubercle Transfer

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The aim of surgery is to reduce pain, improve function, improve overall quality of life and mobility. Overall success rate is 95%.

What to Expect
- 1 night in hospital
- 2 weeks of swelling and discomfort requiring significant pain medication
- 8 weeks for the Osteotomy to heal
- 6 -12 weeks for reasonable recovery
- 6-12 months for a good to full recovery

Possible Complications of Surgery
- Wound infection
- Deep joint infection
- Deep vein thrombosis (DVT)
- Fracture
- Nerve injury
- Component failure
- Non-union of the Osteotomy
- Revision surgery
- Heart attack
- Chest infection
- Pulmonary embolism

Risks
- 5% chance of minor complication
- 1% chance of serious complication
- Risk of dissatisfaction with the outcome of surgery
- Extremely rare chance of death

Post Operation Wound Care
- Keep wool and crepe bandages on for 24 hours after the operation.
- Keep wounds clean, dry and covered for 2 weeks or until the wound is completely healed. If the dressings get soaked through, they will need to be changed.
- Do not soak the incision (ie. bath or pool) until the wound is completely healed.
- Mr Spencer mainly uses dissolvable stitches.
- If you have any concerns about your wound please contact Mr Spencer's rooms.

After your Tibial Tubercle Transfer: A Rehabilitation Guide

The time frames below are approximate, vary between individuals and are best guided by Mr Spencer or your Physiotherapist. Listen to your knee and alter your activity/exercises according to how your knee responds. Notes below in italics are guidelines intended for your Physiotherapist.

Weeks 0-6
- When walking, use your crutches and splint for the first 6 weeks. Remove the splint to perform set exercises to regain your knee range of movement.
- Try to walk as close to a "normal" walking pattern as possible eg. with an even step length on both sides, try not to lean to one side.
- Partial weight bear as is comfortable in the splint.
- Minimise your pain. Ensure adequate pain relief. You can use ice on your knee for 15-20 minutes 3-4 times/day (including after exercises). Continue to check that your skin is ok whilst using the ice.
- Minimize swelling – in the first few weeks, rest as often as you can with your leg in elevation (ideally your leg should be higher than your heart). Minimise activities that make your swelling worse, such as excessive walking. You can use a compression bandage (such as doubled tubigrip).
- If sleeping on your side, try using pillows between your knees or to support your upper leg for comfort. Do not use pillows under your knee when sleeping on your back.
- You may be able to return to work between 3-10 weeks, depending on your job. Please discuss this further with Mr Spencer. Continue to elevate your leg at work to avoid an increase in swelling.
- Slowly and gently increase your bending and straightening of your knee. Ease off exercises if they cause an increase in pain and/or swelling.
- Where possible, the set exercises are best performed when your knee is warm (eg. after a shower) and approximately half an hour after pain relief medication is taken. Ice can be used after performing exercises.
- *Remove the splint and perform set exercises 1-3 times/day: eg. Ankle pumps with leg in elevation, range of movement of knee flexion and extension; VMO activation long sit; maintain hip strength.*

Weeks 6-8
- From 6 weeks, walking in water is a good form of exercise for your knee (once your wound is completely healed).
- You can do upper body swimming using a pull buoy between your knees to help you maintain cardiovascular fitness and upper body strength (the wound needs to be 100% healed). No leg kicking before 8 weeks.
- You may be able to drive from 6-8 weeks (depending on the side of operation), when you feel safe and competent to do so. You may need to check with your insurance company to ensure that you're covered to drive.
- *Continue to improve the range of movement and strength/control of your knee.*
- *Continue to progress VMO exercises and control of knee.*
- *Maintenance exercises for core strength and gluteals.*

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8-10 weeks

▪ You can use a stationary bike if your knee range allows a full rotation of the pedals (normally at least 70 degrees of knee flexion). Start slowly. Initially for 2 minutes with no resistance, increase time duration and then resistance gradually over time, as is comfortable. A Physiotherapist can guide you with this.

▪ You can start a supervised, progressive walking programme on alternate days. Initially on a flat surface, start slowly with rests as required and increase duration.

▪ Swim (pain-free) with a light kick, straight legs (no frog kick initially). This is best guided by a Physiotherapist.

▪ *Progress knee control with functional, closed chain exercises as able to improve VMO control (mini squat, modified lunge, steps, leg press) wall slides, ball squats, proprioception exercises. Progress to unilateral squat if controlled.*

▪ *Proprioception exercises for knee progressing from 2 to 1 leg stance and eyes closed, start to challenge base of support and centre of gravity. Aim towards operated leg equalling opposite side with proprioception, strength, range of movement.*

Week 10-12

▪ Stepper Machine, Rowing Machine, Cross Trainer.

▪ *Start a supervised jogging programme. Straight lines, flat surface, start with 1 km (or less) and gradually increase if pain-free. It is best to have good proprioception and good knee control with a jump, land, single squat before beginning jogging. Progress speed and duration slowly as able.*

▪ *Add lateral movements such as sideways squats, side step, grape vine, hopping.*

Week 12 and onwards

▪ Bike ride on the path/road (if you feel safe).

▪ *Continue to improve strength, balance and proprioception of your knee (single limb stance).*

▪ *Strength and agility exercises, sport specific activities/exercises.*

▪ 3 months onwards: Introduce breaststroke/frog kick as able to pain-free.

▪ Low impact step exercises classes.

▪ Your knee can continue to improve for the first year.

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