

FULKERSON OSTEOTOMY (PATELLA STABILISATION)

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This information sheet provides information on the nature and purpose of the procedure in addition to an outline of the post-operative rehabilitation.

Purpose and description of the procedure

This operation is performed to improve stability of the knee cap (patella) reducing the sensation of dislocation or giving way of the knee. It is also sometimes used for treating various forms of anterior knee pain (patello-femoral pain) syndrome. It involves releasing the tight tissue on the outer side of the patella (lateral release) and moving the bony attachment point of the tendon controlling the knee cap (patella tendon) into a better position. The effect of this is to hold the patella within its normal groove or track on the thigh bone, reducing the tendency for it to slide out of position to the outer side (lateral side). The tendon attaches to the tibial tubercle, which is the bony prominence below the patella, and the operation moves this forwards (anteriorly) and to the inner side (medially). It is then held in place with two screws, which usually do not have to be removed.

Pre-operative preparation

Preoperatively in outpatients x-rays of the knee are taken to help determine the amount of correction required. A hinged knee brace is ordered which will hold the leg enough for the osteotomy to heal yet will allow early range of movement exercises.

During the Hospital stay

On the day of surgery the leg is marked and final consent obtained. The procedure is usually performed under general anaesthesia and the anaesthetist will discuss post-operative pain relief. This will usually involve nerve blocks, which keep the leg and knee numb for a while, and analgesic tablets.

After the operation the leg is initially held still in a knee brace and depending on progress, gentle bending of the knee and walking with the aid of crutches is started on the first or second day. On the first postoperative day the drainage tube is removed and postoperative x-rays may be taken.

Most patients are able to go home on day 2 or 3 following surgery, with a date for removal of stitches or skin clips (usually 10 days) and an outpatient appointment (usually 4 weeks).

Post-operative care

Knee Brace: The knee brace should be used at all times when moving around for the first 4 weeks to protect the osteotomy site. The hinges on the brace should be locked with the leg out straight when walking as the bone has been weakened by the procedure. The hinges may be unlocked when sitting and free flexion is allowed out of the splint when resting or in bed. The brace may be removed at night as comfort and confidence allows.

Weight bearing: Partial weight bearing as tolerated is allowed in the brace with the aid of crutches for the first 4 WEEKS.

At the 4-week follow-up appointment: If X-rays are satisfactory, the brace is removed and full weight bearing is allowed.

Exercises: Early physiotherapy is directed at patella mobility in addition to static quadriceps and hamstring work maintaining muscle bulk. The most important part of the initial rehabilitation is to maintain patella mobility in the medial/lateral plane as well as the superior/inferior plane. Once the wound has settled then mobilisation of the patella tendon should also start in order to avoid any tethering and over scarring.

Range of movement exercises aim to achieve a comfortable 90 degrees bend and full straightening (extension) of the knee by 2 weeks and nearly full flexion by 6 weeks.

At 4 weeks when full weight bearing is allowed then proprioception and strength work using bicycle and rowing machines can commence.

Further rehabilitation: Initially closed chain exercises are used, protecting the patello-femoral joint. Function gradually increases, tailored to each patient, with the expectation of fast walking by 2 months building up to running and sporting activities at 4 - 6 months post surgery.