

High Tibial Osteotomy Tomofix Protocol

High Tibial Osteotomy (HTO) is an established method of treating unicompartmental osteoarthritis of the knee with mal-alignment. The procedure involves cutting the proximal tibia, 'wedging' the bone apart and using a sturdy plate (AO TomoFix™) to maintain this position until the gap has filled with bone. The gap may or may not be filled with a bone graft from the pelvis at the time of the surgery. This re-alignment of the bones shifts the pressure away from the arthritic compartment and aims to reduce, or even eliminate, the patient's pain. Studies have shown patients to be almost pain free at one year follow up. The plate does not need removing unless it is causing symptoms, and not until at least 12 months post-op as premature removal can lead to loss of the corrected alignment.

Total or partial knee joint replacements are alternatives to this procedure but survival of the prosthesis can not be guaranteed, especially in the younger patient. An osteotomy also allows the patient to remain more active and activities such as running may still be possible.

The long-term outcome of HTO for medial OA depends on the correction achieved after the osteotomy has healed. Post-op complications (re-varisation, progression of osteoarthritis and delayed union) that lead to further surgery have been seen in patients over the age of 64 years or cigarette smokers. An HTO is therefore not recommendation in this group of patients.

Immediately post-op - 1 week

- Swelling management (Cryocuff).
- TAQ's, SLR.
- Patella mobilisation (superior/inferior, medial/lateral).
- Passive/Active assisted knee flexion and extension.
- Progress to active ROM as tolerated.
- WBAT: use EC's until able to walk with no limp (may take up to 12 weeks).

O/P physio arranged for 1/52

1 week +

- Check for signs of infection, distal neurovascular deficit or DVT.
- Progress ROM, strength and proprioception as comfort allows.
- Return to full ADL's as tolerated once authorised by the consultant.

References

Staubli, A. et al (2003) TomoFix: a new LCP-concept for open wedge osteotomy of the medial proximal tibia – early results in 92 cases, *Injury Int. J. Care Injured*, Vol 34, S-B55-S-B62.

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