



HIGH TIBIAL OSTEOTOMY POSTOPERATIVE PROTOCOL (Dr. Akbar Nawab)

GENERAL GUIDELINES:

- TTWB with crutches in the brace for 6 weeks.
- ROM limited to 30° for the first 4 weeks and then progressed as tolerated.
- Limited ROM brace should be locked at 0° for all activities, including sleeping.
- Keep the entire leg elevated. Do not place pillows under the knee for long periods of time.
- Utilize cryotherapy for 20 to 30 minutes every hour for pain and swelling reduction.
- Keep incisions dry for 5 days but may shower anytime postoperatively.

WEEKS 0-4

- Restore superior and medial patellar mobility.
- Restore FULL knee extension within 2 weeks (low load-long duration stretching).
- Hamstring, gastrocnemius, and ITB stretching.
- Ankle ROM/strengthening for swelling and DVT prevention.
- Limited ROM to 0°-30°
- Modalities as needed for pain and swelling.
- NMES for Quadriceps activation and re-education. (home unit if available)
- 3-way (Flex/Abd/Ext) open chain straight leg exercises once pain is under control and adequate QUAD control established.
- *Focus on knee remaining locked in concentric and eccentric phase of leg lifts. Increase reps and hold time initially, before adding resistance. No ankle weight until extensor lag is eliminated.*

WEEKS 4-6

- Increase ROM as tolerated (goal of 0°-90°)
- Continue to increase hip resistance during ABD/FLEX/EXT open chain exercises as tolerated.
- May start light aquatic exercises once good Quadriceps control is established.
- Soft tissue mobilizations as needed for scar and myofascial restrictions.
- Isometric hamstring strengthening on a ball progressing to AROM as tolerated.
- Initiate stationary bike for range of motion without resistance.

WEEKS 6-12

- ROM to WNL's as tolerated.
- Calf raises once full weight bearing
- Increase resistance with all exercises as tolerated.
- Hamstring curls to 90° with resistance as tolerated.
- Increase leg strength, allow for normal gait and walking longer distances.
- Start closed chain exercises as tolerated in a protected range. (Mini-squats, proprioceptive retraining, BAPS board)
- Leg press (0°-60°) with light resistance and high repetitions. (10-12 weeks postop)
- Increase resistance with stationary bike for strength and endurance training.
- Edema control.

MONTHS 3-6

- Low impact weight program increasing intensity of strength and functional training for a gradual return to normal activities.
- Elliptical trainer.
- Core strengthening.
- Regain Quad/hamstring girth and tone.

MONTHS 6-9

- Sport specific training (if applicable).