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REHABILITATION PROTOCOL – ACI OR ALLOGRAFT PATELLA/TROCHLEA + TIBIAL TUBERCLE OSTEOTOMY

Phase I (0-3 weeks)

Weight-Bearing: foot flat with brace

Brace: locked in extension for sleeping and all activity (off for CPM)

ROM: 0-30° with CPM

Exercises: quad sets, patellar mobilization, straight leg raises, ankle pumps

Phase II (3-8 weeks)

Weight-Bearing: advance to as tolerated at 3 weeks

Brace:

- Weeks 2-6: locked straight while ambulating
- Weeks 6-8: 0-90° while ambulating

Passive ROM:

- Weeks 3-4: 0-60°
- Weeks 4-6: 0-90°
- Weeks 6-8: As tolerated

Exercises:

- Continue as above (avoid squats, lunges, low chairs)
- Quad/hamstring/gluteal sets, SLRs, side-lying hip, core
- Weeks 6-8: Add eccentric quads, eccentric hamstrings, and core/pelvic stability

Phase III (8-12 weeks)

Weight Bearing: as tolerated

Brace: none

ROM: full passive; limit air squats, air lunges to 90°

Exercises:

- Continue as above
- Closed chain strengthening quads, hamstrings, gluteals (wall sits, mini-squats, mini-lunges, toe raises)
- Proprioception exercises (unilateral stance, balance), stationary bike

Phase IV (12-26 weeks – only advance to Phase IV if no swelling and full ROM):

Weight Bearing: as tolerated

Brace: none

ROM: full

Exercises:

- Continue as above
- Maximize core/gluteal strength; lunges, planks, bridges; advance proprioception
- Elliptical, stationary bike, pool
- After 30 weeks: advance to drills, jumping, cutting if cleared by Dr. Welch

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