



OSTEOCHONDRAL AUTOLOGOUS TRANSPLANT PROTOCOL (OATS PROCEDURE) FEMORAL CONDYLE

GENERAL GUIDELINES:

- CPM machine at 0°- 60° for the first few days, then increase by 5° increments per day as tolerated. Utilize CPM for at least 4 weeks unless otherwise instructed by M.D.
- Nonweightbearing to Toe Touch Weight Bearing with crutches with brace locked at 0° for 4-6 weeks (Specified by the M.D.).
- Regain full knee Extension as quickly as possible. Sleep in the brace locked at 0° until full extension is maintained.
- Brace locked in full extension for one week and then unlocked in 10-20° increments if full extension has returned and when adequate quadriceps control is established.
- Wean from brace at 6 weeks unless otherwise instructed by M.D.
- Elevate the entire leg. Do not place pillows under the knee for long periods of time.
- Modalities: PRN for pain and inflammation.
- Utilize cryotherapy for 20 to 30 minutes every hour for pain and swelling reduction.

WEEKS 0-4

- Restore patellar mobility.
- Restore knee extension (low load-long duration stretching).
- Hamstring/gastrocnemius stretches.
- Ankle ROM for swelling and DVT prevention.
- PROM of knee (Seated flexion, heel slides, wall slides). Goal of 90 degrees by week 3.
- 4-way open chain straight leg exercises.
- *Focus on knee remaining locked in concentric and eccentric phase. Increase reps and hold time initially, before adding resistance. No ankle weight until extensor lag is eliminated.*
- Modalities: PRN for pain and swelling.
- NMES for Quadriceps activation and re-education.

WEEKS 4-7

- Increase ROM as tolerated, to full range.
- Continue to increase hip resistance during open chain exercises as tolerated.
- May start light aquatic exercises once good Quadriceps control is established and wound is healed appropriately.
- Isometric hamstring strengthening on a ball.
- Initiate stationary bike for range of motion without resistance.
- Gait training and proprioceptive/balance exercises as weight bearing restrictions allow.

WEEKS 8-12

- Increase resistance with all exercises as tolerated.
- Increase leg strength allow for normal gait and walking longer distances.
- Start closed chain exercises as tolerated in a protected range. (1/3 Partial Squats, Leg press with light resistance and high repetitions, calf raises, proprioceptive exercises, BAPS board)
- Initiate Step up/down exercises without compensations.
- Increase resistance with stationary bike.
- Sport specific exercises and Sportsmetrics program.
- Initiate jogging program when allowed by M.D.
- Agility drills when tolerated.
- Increase Cardio as tolerated.