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REHABILITATION PROTOCOL – NANOFRACTURE/BIOCARTILAGE FEMORAL CONDYLE

Phase I (0-6 weeks)

Weight-Bearing: foot flat

Brace:

- Weeks 0-2: locked in extension at all times; off for ROM exercises (CPM)
- Weeks 2-6: locked in extension only when ambulating

ROM: Use CPM: start 0-50°; advance 5 degrees daily as tolerated

Exercises:

- Quad/gluteal/hamstring sets, straight leg raises, ankle pumps, core

Phase II (6-8 weeks)

Weight-Bearing: as tolerated

Brace: none

ROM: full

Exercises: continue as above

Phase III (6-12 weeks)

Weight-Bearing: full

Brace: none

ROM: full

Exercises:

- Continue as above
- Closed chain exercises (hamstrings, quads, glutes) – start at 0-90°; advance as tolerated
- Proprioception exercises (unilateral stance, balance training)
- Stationary bike

Phase IV: (12-26 weeks):

Weight-Bearing: full

Brace: none

ROM: full

Exercises:

- Continue as above
- Advance to eccentric exercises (hamstrings, glutes, quads)
- Elliptical, stationary bike, swimming
- Start sport specific exercises at week 20-24 if cleared by Dr. Welch

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