

Knee Cartilage Surgery Physical Therapy Protocol

Phase I

Weeks 0-2

Weight Bearing

- NWB

Brace

- Hinged knee brace locked in extension– remove for CPM and rehab with PT

ROM

- Continuous Passive Motion (CPM) Machine for 6-8 hours per day for 8 weeks
- Set CPM to 1 cycle per minute – set at 0-30° for first 3 weeks
- PROM/AAROM and stretching under guidance of PT

Therapeutic Exercise

- Weeks 0-4: Straight leg raise/Quad sets, Hamstring isometrics
- Perform exercises in the brace if quad control is inadequate

Weeks 2-4

Weight Bearing

- Partial WB (30-40 lbs)

Brace

- Locked in extension for weight bearing – Can open brace for NWB ROM 0-30°

ROM

- Starting at week 3 increase flexion 5-10° per day until full flexion is achieved

Therapeutic Exercise

- Weeks 0-4: Straight leg raise/Quad sets, Hamstring isometrics
- Perform exercises in the brace if quad control is inadequate

Weeks 4-8

Weight Bearing

- Continue with partial WB (progress to use of one crutch at weeks 6-8)

Brace

- Open brace to 30° for ambulation
- D/C brace at week 6 post-op

ROM

- Should be at 90° by week 6 and 120° by week 8

Therapeutic Exercise

- Weeks 4-10: Begin isometric closed chain exercises
- At week 6 can start weight shifting activities with operative leg in extension

Weeks 8-12

Weight Bearing

- Progress to full WB with discontinuation of crutch use

Brace

- None

ROM

- Advance to full/painless ROM

Therapeutic Exercise

- Weeks 4-10: Begin isometric closed chain exercises
- At week 8 can begin balance exercises and stationary bike with light
- Weeks 10-12: hamstring strengthening, theraband resistance exercises 0-30°, light open-chain knee isometrics

Phase II:

Weeks 12-24

Weight Bearing

- Full WB with normal gait pattern

Brace

- ○ None

ROM

- Advance to full/painless ROM

Therapeutic Exercise

- Gait training/treadmill use at slow-moderate pace
- Progress balance/proprioception exercises
- Start sport cord lateral drills

Phase III

Months 6-9

Weight Bearing

- Full WB with normal gait pattern

Brace

- None

ROM

- Advance to full/painless ROM

Therapeutic Exercise

- Advance closed chain strengthening/Start unilateral closed chain exercises
- Progress to fast walking and backward walking on treadmill (add incline at 8 months)
- Start light plyometric training

Months 9-18

Weight Bearing

- Full WB with normal gait pattern

Brace

- None

ROM

- Full/painless ROM

Therapeutic Exercise

- Continue closed chain strengthening exercises and proprioception activities
- Emphasize single leg loading
- Sport-specific rehabilitation – jogging/agility training at 9 months
- Return to impact athletics – 6 months (if pain free)
- Maintain program for strength and endurance