

Non-Operative PCL Deficient Knee Rehabilitation Program

Phase I – Protection Phase (Day 1 to Week 4)

Day 1 to 5

Brace ROM – 0-70 degrees

Weight Bearing – two crutches as tolerated

Muscle Stimulation – muscle stimulation to quads

Exercises:

- Quad sets
- Straight leg raises (all 4 planes)
- Knee extension (60 degrees to 0 degrees)
- Multi-angle isometrics at 60,40,20 degrees (for quads)
- Mini squats (0-50 degrees)
- Leg press (45-90 degrees)

Day 5-7

Brace ROM – 0-90 degrees

Weight Bearing – Progress as tolerated

Exercises

- Continue all strengthening exercises
- Initiate wall squats
- Initiate proprioception training

Weeks 2-3

Brace ROM – 0-115 degrees

Weight Bearing – One Crutch then without at Week 3

Exercises:

- Progress exercises (listed above), using weight progression
- Bicycle for ROM stimulus (week 204)
- Pool program
- Leg press (30-90 degrees)
- Vertical Squats (0-60 degrees)
- Lateral step-ups
- Single leg squats

Phase II – Moderate Protection Phase (week 3-6)

Week 3

Range of Motion – to tolerance (0-125 degrees)

Brace – Discontinue

Exercises

- Continue all above exercises (progress weight)
- Bicycle
- Stairmaster
- Rowing
- Knee extension (90-0 degrees)
- Mini squats (45-60 degrees) (0-60 degrees)
- Leg press (0-100 degrees)
- Wall squats (0-75 degrees)
- Step-ups
- Hamstring curls (light resistance) (0-45 degrees)
- Hip abduction/adduction

- Toe-Calf raises
- Proprioception training (biomed stability system)

Week 4-6

Brace – Fit for functional brace

Exercises:

- Continue all exercises listed above
- Pool running
- Agility drills

Phase III – Minimal Protection Phase (Week 7-12)

Exercises:

- Continue all strengthening exercises
- Initiate Running Program
- Gradual return to sport activities

Criteria to Return to sport activities

1. Isokinetic quadriceps torque to body weight ratio
2. Isokinetic test 85% > of contralateral
3. No change in laxity
4. No pain/tenderness or swelling
5. Satisfactory clinical exam