

PCL Rupture Conservative Mx Protocol

Initial precautions: Avoid knee hyperextension and active hamstrings work for 12/52.

Brace should be worn for 4 months at all times except showering and changing clothes.

0-6 weeks

- Swelling management (RICE).
- Place in PTS splint, referral to appliances for PCL brace fitting.
- PWB for 2/52 then WBAT in PCL brace.
- **In prone only:** Gentle **passive** knee ROM (0-90°) for 2/52, then FROM as able.
- TAQ's, SLR, Hip Add and Abd maintenance exercises.
- Patella mobilisation (superior/inferior, medial/lateral).
- Gentle gastrocnemius stretches.
- Static bike (no resistance) when sufficient ROM.
- Proprioception and heel raises once FWB.

6 – 12 weeks

- Continue with previous ex's and add gentle hamstrings stretches.
- FWB in PCL brace as able if no limp.
- Double legged OKC quads and CKC ex's: both <70° knee flexion (3 sets of 20 reps).
- ROM exercises can now be performed in supine.
- Hamstrings bridges on gym ball with knees extended.
- Progressive increase of resistance on static bike.
- Incline treadmill walk (7-12% incline).
- Single leg Romanian dead lift (knee extended).

12 – 18 weeks

- Discontinue PCL brace at 16 weeks.
- Progress strength exercises beyond 70° knee flexion.
- Start isolated OKC hamstrings exercises.
- Progress ex's to single leg (leg press, step ups, side dips etc).
- Start jogging if sufficient strength and stability with functional ex's and quadriceps girth >90% of uninjured side (measure 15cm above superior border of patella).
- Graduated running program – start with 1 minute run, 4 minutes walk(1:4) for 20 minutes. Increase running time by 1 minute each week with subsequent reduction of walk by 1 minute (2:3) so that the patient should be able to run for 20 minutes after 5 weeks.
- Once running program completed progress from single to multi-plane agility ex's.
- Single leg bridges with knee flexed to 90° from week 16.

19 weeks +

- Strength bias ex's (3 sets of 4-8 reps).
- Return to training for specific sports.
- Return to contact sports if >85% of good leg on functional testing.

References

Jim Hewlett , John Kenney. Innovations in functional and rehabilitative knee bracing. Ann Transl Med. 2019 Oct;7(Suppl 7):S248. Free PMC article

Written by: Mr Richard Norris, Orthopaedic Physiotherapy Specialist
Professor MJ McNicholas, Consultant Orthopaedic Surgeon

Ratified by: Mr MJ McNicholas
Date last reviewed: October 2020