

Posterior Cruciate Ligament Rehabilitation

Guidance

- Brace: After a posterior cruciate ligament (PCL) injury, a PCL brace keeps the knee in a better position while the ligament heals. How long you wear the brace for will depend on the injury, more details can be found in the rehabilitation protocol on page 2 or 3.
- Movement and exercises: For the first few weeks the brace may be limit your knee bend, but it is important to get your knee straight as soon as possible. The quadriceps (front thigh muscle) is particularly important as it protects the healing ligament. You will need to do exercises to increase the movement and exercises to strengthen your leg. You should avoid hamstring strengthening initially, the rehabilitation protocol gives you more information about exercises.
- Crutches: You will be advised about how long you need to use crutches, the chart in the rehabilitation protocol will guide you.
 Don't rush off your crutches too soon as it may increase the pain and swelling. When you progress to using one crutch you hold it in the opposite hand to you knee injury.
- Swelling: Initially your knee may be swollen, this is part of the normal healing process. To speed up your recovery it is important to reduce the swelling, keep your leg elevated ideally keeping your knee higher than your heart.
- Pain control: Take regular pain relief as prescribed or over the counter medication, if your pain is well controlled it will make your knee more comfortable, making it easier to move, complete the exercises and sleep.
- **Physiotherapy:** A physiotherapist will guide you in your rehabilitation.
- Return to sport: The time it will take to return to sport will depend on your injury, you can return to simple exercises such as cycling after 7 weeks, it may take you 6 months to return to sport if you have not had an operation. If you have had an operation it can take up to a year before you return to sport. You will need full movement, and full strength in all your muscles.

Instructions for use of PCL brace

- Patient guide including fitting instructions, washing instructions, and hinge maintenance.
- Instructions for use (multiple languages)
- Size guidelines (page 2)





Rehabilitation protocol

Isolated PCL Injury – Conservative treatment

	WEEK 1-2	WEEK 3-6	WEEK 7-12	MONTH 3+
Weight bearing	PWB (walk with x2 crutches)	WBAT (walk with crutches if you feel you need them)	WBAT (walk with crutches if you feel you need them)	FWB (walk without crutches
Brace	Day and night Grey shear knob	Day and night Grey shear knob	Day and night White shear knob > week 10	During day for up to 4 months During return to play up to 6 months
ROM Limitation	Up to 0-0-90° with brace Work on full extension	Up to 0-0-90° with brace	None	None
Physiotherapy	Do: Static quadriceps contraction Inner range quadriceps Straight leg raise Don't: Active flexion Hamstring activation .	Prone lying knee flexion to 90° Static quadriceps contraction Inner range quadriceps Straight leg raise Mini squats Calf strengthening Static bike with low resistance – no toe clips Don't: Perform isolated hamstrings	Squats to 70° knee bend Leg press to 70° knee bend Lunge to 70° knee bend Hamstring gentle bridging keeping knee straight Balance exercises (Example 1, 2, 3) Don't: Isolated hamstrings without brace Cycling with toe clips.	Quadriceps strengthening able to squat beyond 90° Isolated hamstring strengthening Start jogging programme if sufficient strength and minimal swelling Progress to acceleration / deceleration / change of direction Progress to full strength training. Ideally RTP month 4-6. Don't: RTP without specific training.



Isolated or Combined PCL Injuries - Following surgical reconstruction

	WEEK 1-2	WEEK 3-6	WEEK 7-12	MONTH 3+
Weight bearing	NWB (Use crutches, foot only lightly toughing the floor)	NWB/PWB (20%) (Use crutches with up to 20% body weight through leg)	WBAT (Walk with crutches if you feel you need them)	FWB (Walk without crutches)
Brace	Day and night Extension lock Grey shear knob	Day and night Grey shear knob	Day and night White shear knob > week 10	During day for +1 month During activity with deep flexion wean off after 6 months. Continue to wear for next sports season
ROM Limitation	Up to 0-0-90° prone / assisted	NWB: 0-0-90 PWB: Extension locked	None	None
Physiotherapy	Do: Static quadriceps contraction Inner range quadriceps Straight leg raise Don't: Active flexion Hamstring activation	Do: Static quadriceps contraction Inner range quadriceps Straight leg raise Static bike with low resistance – no toe clips Don't: Open chain hamstrings	Do: Squats to 70° knee bend Leg press to 70° knee bend Lunge to 70° knee bend Hamstring gentle bridging keeping knee straight Balance exercises (Example 1, 2, 3) Don't: Isolated hamstrings without brace Cycling with toe clips.	Quadriceps strengthening able to squat beyond 90° Isolated hamstring strengthening Start jogging programme when sufficient strength and minimal swelling Progress to acceleration / deceleration / change of direction after week 19 >6 months progress to full strength training and full movement RTP month 9-12 after sport specific testing.

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Date of publication: September 2024 | Ref: RUH PHY/084 © Royal United Hospitals Bath NHS Foundation Trust