

Posterior Cruciate Ligament Reconstruction Protocol

Name _____ Date _____

Procedure _____

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Frequency 1 2 3 4 5 times/week Duration 1 2 3 4 5 6 weeks

FIRST THERAPY VISIT

- Therapy appointment should be scheduled for 3-5 days postoperatively.
- Goals of therapy visit include:
 - Surgical site evaluation (see below for instructions)
 - Brace/sling education and adjustment as needed
 - Review of therapy protocol, expectations, and plan
 - Initiation of early phase therapy ONLY if applicable (follow protocol as outlined below)
- Surgical site evaluation
 - Incisions are closed with one or combination of below methods
 - Staples
 - Nylon sutures (black sutures)
 - Monocryl sutures covered with steristrips or glue
 - Prineo dressing (clear adherent glue dressing)
 - Anytime the dressing is changed or examined, **please wash hands** prior with antibacterial soap.
 - There will be gauze and padding over the incisions and the extremity may be wrapped with an ACE wrap. The surgical dressing should be changed by the therapist using **sterile** technique. This includes sterile field, sterile gloves, betadine or chlorhexidine skin cleanser and sterile supplies when redressing the wounds. Do NOT remove steri-strips or glue dressing. DO NOT remove sutures or staples. The new dressing should include dry gauze and ACE wrap. Before the new dressing is applied the wounds should be clean and dry (without removing steri strips or glue dressing). Please do not use tegaderm unless it was used at the time of surgery or if specifically stated on the orders. If there are any concerns with the incisions or dressings, the therapist should call the office immediately – (219) 250-5038.
 - Unless otherwise instructed, incisions must remain dry for 7 days. They must be sealed off in the shower. The Prineo dressing/glue dressing is water resistant, and incisions covered by this dressing may get wet after 3-5 days. Once you are permitted to get the incisions wet, warm soapy water should **gently** rinse the surgical area. Do NOT scrub the area. Pat the area dry with a clean towel and keep free of lotions or creams. Do NOT soak in a pool, bath or hot tub until permitted by the surgeon's office. Please wear clean clothes following shower and be conscious of any pet hair or other contaminants near the surgical area. Do not apply any ointments or medications to the area.

*****Range of motion is an important progression of therapy, but limiting swelling is important.
Respecting swelling will decrease pain and improve motion.*****

	BRACE/ WEIGHT BEARING /ROM GOALS/PRECAUTIONS	THERAPEUTIC EXERCISES AND INTERVENTIONS
Phase 1 (Weeks 0 to 4)	Long Brace locked at 0 degrees for all activities (except hygiene and PT). Weight bearing: Toe Touch Weight Bearing with crutches, braced locked in extension with all ambulation and sleeping ROM Weeks 0-4: range of motion = full extension to 90 degrees flexion. Extension: Knee extension on a bolster; avoid prone hangs secondary to hamstring guarding. Flexion: use gravity or assistance to minimize hamstring activity, such as supine wall slides or seated knee flexion. Precautions: Toe Touch Weight Bearing No open chain hamstring strengthening or isolated hamstring exercises. No hamstring stretching. No bike. Follow ROM guidelines. Goals Protection of the post-surgical knee Restore normal knee extension Eliminate effusion Restore leg control	Quad sets isometrics Ankle strengthening Straight leg raises (4 way) Heel slides within restrictions Resisted SLR (4 way) standing Patellar Mobilization Stretching NMES (Home use ok) Cryotherapy Open chain knee extension against gravity Leg lifts in standing with brace on for balance and hip strength- avoid hip extension secondary to hamstring restrictions
Phase 2 (Weeks 5-11) Patient may progress to Phase 2 if they have met all the above stated goals and have pain free gait without	Weight bearing Progress weight bearing to WBAT and unlock brace as functionally appropriate. Discontinue brace over weeks as the patient gains leg control and balance. ROM Weeks 5-6: ROM= full extension to 120 degrees flexion gradually attain full flexion, avoiding forced flexion.	Same as phase 1 plus: Gait training Quadriceps strengthening - closed chain exercises short of 70 degrees of knee flexion Hip and core strengthening Stretching for patient specific muscle imbalances

crutches, no effusion, and knee flexion to 90 degrees.	Flexion: Continue to avoid active/resistive flexion until week 9 Precautions No open chain hamstring strengthening or isolate hamstring exercises. No hamstring stretching. No bike until week 8 OR MODIFY TO AVOID HAMSTRING ACTIVATION. Goals Single leg stand control Normalize gait Good control and no pain with functional movements, including step up/down, squat, partial lunge (keeping the knee in less than 60 degrees of knee flexion).	Closed chain toe raises Wall sits, mini-squats, inclined leg press low loads within range restrictions Light hamstring isometrics Bilateral bridge
Phase 3 (Weeks 12-16) Patient may progress to Phase III if they have met all the above stated goals and have normal gain on all surfaces, ability to carry out functional movements without unloading affected leg and without pain, while demonstrating good control. Single leg balance greater than 15 seconds. Full ROM	No Brace FWB Full ROM Improved gait, balance and strength. Precautions No open chain hamstring strengthening or isolated hamstring exercises. Goals Good control and no pain with functional movement, including step up/down, squat and lunge. Good control and no pain with light agility and low-impact multi-plane drills.	Same as phase 1 and 2 plus: Open Kinetic Strengthening Hamstrings 0-90 deg., Quadriceps 90-30 deg. Step ups/downs (gradual) Leg Press 70-10 deg. Swimming, Stair climber, elliptical (week 9) Quadriceps strengthening- closed chain (progressing from 1 foot to other and then 1 foot to same foot. Non- impact balance and proprioceptive drills. Impact control exercises beginning with low velocity, single-plane activities and progressing to higher velocity, multi-plane activities. Hip and core strengthening. Stretching for patient specific muscle imbalances.
Phase 4 (Weeks 16-24)	80-100% strength Normal gait, running pattern	Same as Phase 3 plus: BOSU/disc step-ups/balance

Patient may progress to Phase IV if they have met all the above stated goals and ability to carry-out multi-plane functional movements without unloading affected leg or pain, while demonstrating good control, and ability to land from a sagittal, frontal and transverse plane leap with good control and balance.	Normal balance and proprioception Gradual return to activities/sports Precautions Post-activity soreness should resolve within 24 hours. Avoid post-activity swelling. Goals Good dynamic neuromuscular control and no pain with sport and work-specific movements, including impact.	Mini-trampoline activities Intermittent running program Floor agility ladder Plyometric Functional Test Sport/work specific balance and proprioceptive drills. Progress impact control exercises to reactive strengthening and plyometrics. Continue quadriceps strengthening. Hip and core strengthening Stretching for patient specific muscle imbalances. Replicate sport or work specific energy demands.
Return to sport/work criteria	Dynamic neuromuscular control with multi-plane activities, without instability, pain or swelling. 90% or > in hop tests	

Comments:

FCE _____ Work Conditioning/Work Hardening _____ Teach HEP _____

Every patient's therapy progression will vary to a degree depending on many factors. Please use your best clinical judgment on advancing a patient. If other ideas are considered to improve patient's outcome do not hesitate to call.

Patient's recovery is a team approach: Patient, family/friend support, therapist, and surgeon. Every team member plays an important role in recovery.

Signature _____ **Date** _____