

Center for Athletic Medicine  
*Dr. Preston Wolin*  
PCL Reconstruction, or PCL with ACL Reconstruction Protocol

~Please call 773.248.4150 with any and all questions~

**GENERAL GUIDELINES**

PCL: Prevent posterior sagging for 4 weeks; 0-90° PROM for 4 weeks; No active hams for 8 weeks;

crutches x 8 weeks NWB x 4 weeks.

- No open chain hamstring work.
- Assume 8-week graft to bone healing time.
- Caution against posterior tibial translation (gravity, muscle action).
- No HS resistance for 6 months.
- PCL with posterolateral corner or LCL repair follows different post-op care, i.e. Crutches x 3 months.
- Resistance for Hip PRE's placed above knee for hip abduction, adduction. Resistance may be distal for hip flexion.

- Supervised physical therapy takes place for approximately 3-5 months post-op.

**GENERAL PROGRESSION OF ACTIVITIES OF DAILY LIVING (ADL'S)**

Patients may begin the following activities at the post-op dates listed (unless otherwise specified by the physician):

- Bathing/Showering without the brace (surgical incisions should be healed before immersion in water) – 1 week post-op.
- Sleep without brace – 8 weeks post-op.
- Driving –6-8 weeks post-op.
- Full weight bearing without assistive devices – 8 weeks post-op (with physician clearance).

**PHYSICAL THERAPY ATTENDANCE**

The following is an approximate schedule for supervised physical therapy visits:

Phase I: 0 to 1 month: 1 month

Phase II: 1 to 3 months: 2-3 week

Phase III: 3 to 9 months: 2 x month

Phase IV: 9 to 12 months: 1 x month

**REHABILITATION PROGRESSION**

The following is a general guideline for progression of the rehabilitation program following PCL, PCL/ACL

reconstruction. Progression through each phase should take into consideration patient status (e.g. healing, function) and physician advisement. Please consult the attending physician if there is uncertainty regarding the advancement of a patient to the next phase of rehabilitation.

**PHASE I**

Begins immediately following surgery and lasts approximately one month.

Goals:

1. Protect healing bony and soft tissue structures.
2. Minimize the effects of immobilization through:
  - Early protected range of motion (protect against posterior tibial sagging).
  - PRE's for quadriceps, hip and calf with an emphasis on limiting patellofemoral joint compression and posterior tibial translation.
3. Patient education for a clear understanding of limitations and expectations of the rehabilitation process.

Brace: Locked at 0 degrees for one week.

At one week post-op the brace is unlocked for passive range of motion performed by a physical

therapist or athletic trainer. Technique for PT/AT assisted ROM is as follows:

PT/AT Assisted knee flexion ROM: Patient supine- For PCL patients: maintain anterior

pressure on proximal tibia as knee is flexed. For combined PCL/ACL patients, maintain neutral position of proximal tibia as knee is flexed. It is important to prevent posterior tibial sagging at all times.

Patient will be instructed in self administered PROM with the brace on with emphasis on

supporting the proximal tibia.

Weight bearing Status: NWB- 4 weeks

Special Considerations: Pillow under proximal posterior tibia at rest to prevent posterior sag.

TherEx: Instructed in hospital:

- Quad sets
- SLR
- Hip AB/AD
- Hip alphabet
- Ankle Pumps
- Full passive knee extension
- Patellar mobility

*(TherEx cont.) Add at first post-op visit:*

- Prone hangs
- Hamstring and Calf stretching
- Calf press with Theraband progressing to standing calf raises with full knee extension.
- Standing hip extension from neutral
- Continue exercises as above

\*Note- Functional Electrical Stimulation may be used for a trace to poor quad contraction

PHASE II Begins approximately one month post-op, and extends to the 12th post-op week.

Expectations for advancement to Phase II:

1. Good quad control (Good quad set, no lag with SLR)
2. Approx. 60 degrees of knee flexion
3. Full knee extension
4. No signs of active inflammation

Goals:

1. Increase range of motion (flexion).

2. Restore normal gait.
3. Continue quadriceps strengthening and hamstring flexibility

Brace:

*4-6 weeks:* Brace is locked 0-60° for controlled gait training only (patient may ambulate with brace unlocked while attending physical therapy or when at home).

*6-8 weeks:* Brace is unlocked for all activities

*8 weeks:* Discontinue brace as allowed by physician

WB Status:

*4-8 weeks:* WBAT with crutches

*8 weeks:* May D/C crutches if patient exhibits:

- No quad lag with SLR
- Full knee extension
- Knee flexion 90-100°
- Normal gait pattern (Pt. may utilize one crutch or cane until normal gait is achieved)

*4-8 weeks:* \*\*When patient exhibits independent quad control, may begin open chain extension

- Wall Slides (0 to 45°): Begin isometric, progress to active against body weight. Progress to minisquats, etc.
- Eagle 4-way hip for flexion, AB, AD, Ext from neutral with knee fully extended.
- Ambulation in pool (Work on restoration of normal heel-toe gait pattern in chest deep water.

*8-12 weeks:*

-Stationary Bike: Foot is placed forward on the pedal without use of toe clips to minimize hamstring activity. Seat slightly higher than normal.

-Closed kinetic chain terminal knee extension utilizing resisted band or weight machine. Use caution to place point of resistance to minimize tibial displacement.

- Stairmaster- May begin sooner if good quad control exists.

- Balance and Proprioception activities (e.g. single leg stance).

- Seated calf raises

- Leg press. Knee flexion should be limited to 90° during exercise

PHASE III

Begins approximately three months post-op, and extends to nine months post-op.

Expectations for advancement to Phase III:

1. Full, pain free range of motion. Note that it is not usual for flexion to be lacking 10-15 degrees for up to 5 months post-op
2. Normal gait
3. Good to Normal quadriceps strength
4. No patellofemoral complaints
5. Clearance by physician to begin more concentrated closed kinetic chain progression

Goals:

1. Restore any residual loss of motion that may prevent functional progression
2. Progress functionally and prevent patellofemoral irritation
3. Improve functional strength and proprioception utilizing closed kinetic chain exercises
4. Continue to maintain quadriceps strength and hamstring flexibility

TherEx:

- Continue closed kinetic chain exercise progression
- Treadmill walking
- Jogging in pool with wet vest or belt
- Swimming- no breaststroke

#### PHASE IV

Begins approximately nine months post-op and extends until the patient has returned to work or desired activity.

Expectations for advancement to Phase IV:

1. Release by physician to resume full or partial activity.
2. No significant patellofemoral or soft tissue irritation.
3. Presence of the necessary joint range of motion, muscle strength and endurance, and proprioception to safely return to work or athletic participation.

Goals:

1. Safe and gradual return to work or athletic participation
  - This may involve sports specific training, work hardening, or job restructuring as needed.
  - Patient education is essential to provide the patient with a clear understanding of their possible limitations.
2. Maintenance of strength, endurance and function.

TherEx:

- Cross-country ski machine
- Sports specific functional progression, which may include but not be limited to:
  - Slide Board
  - Jog/Run progression
  - Figure 8, Carioca, Backward running, Cutting
  - Jumping (plyometrics)
- Work hardening program as directed by physician prescription

\*\*\*\*\*If a patient is not progressing, please call the office for recommendations\*\*\*\*\*