

## Dr. Safran's Updated **PCL POST OP REHAB**

### PHASE I

#### 0 – 6 WEEKS AFTER SURGERY

##### Precautions:

- **PRICE** (Protect, Rest, Ice, Compress, Elevate) protocol
- Avoid hyperextension (12 weeks)
- Prevent posterior tibial translation (12 weeks)
- *Isolated hamstring exercises should be avoided for 4 months*
- Weight bearing
  - Non-weight bearing with crutches (6 weeks)
- Range of motion (ROM)
  - Prone passive ROM from 0° – 90° for the first 2 weeks, then progress to full ROM as tolerated
- Brace
  - Immobilizer brace (3 days) in extension until patient can transition into Jack PCL brace
  - PCL Jack brace to be worn at all times, including rehabilitation and sleep (minimum of 24 weeks)

##### Goals:

- PCL ligament graft protection
- Edema reduction to improve passive ROM and quadriceps activation
- Address gait mechanics
- Patient education

##### Therapeutic Exercise:

- Patellar mobilizations
- Prone passive ROM
- Quadriceps activation
  - Quadriceps sets
  - Straight leg raises (SLR) once the quadriceps are able to lock joint in terminal extension and no lag is present
- Gastrocnemius stretching
- Hip abduction/adduction
- Upper body and core strength as appropriate

## PHASE II

### 6 – 12 WEEKS AFTER SURGERY

#### Precautions:

- Continued avoidance of hyperextension and isolated hamstring activation
- Prevent posterior tibial translation
- Weight bearing
  - Progress to weight bearing as tolerated (WBAT)
- Range of motion
  - Full ROM, supine and prone ROM after 6 weeks
  - *Caution to not be over-aggressive with flexion creating stress on the repair*
- Brace
  - PCL Jack brace to be worn at all times

#### Goals:

- PCL ligament protection
- Continued ROM as tolerated
- Address gait mechanics during crutch weaning
- Double leg strength through ROM (no greater than 70° knee flexion) and single leg static strength exercises
- Reps and set structure to emphasize muscular endurance development (3 sets of 20 reps)

#### Therapeutic Exercise:

- Continue **PRICE** protocol
- Continue exercises as weeks 1-4
- Gastrocnemius and light hamstring stretching
- Weight shifts to prepare for crutch weaning
- Pool walking to assist with crutch weaning
- Squat progression (squat →squat with calf raise →squat with weight shift)
- Double leg press (0-70° knee flexion)
- Hamstring bridges on ball with the knees extended
- Stationary bike with zero resistance when ROM > 115°
- Light kicking in pool

### PHASE III

#### 13 – 18 WEEKS AFTER INJURY

##### Precautions

- Patient to remain in Jack PCL brace for all activities
- Full weightbearing in Jack PCL brace
- Full passive ROM
- *Avoid isolated hamstring exercise until week 16*

##### Goals:

- Joint protection
- Address gait mechanics
- Progressive weight-bearing strength, *including progressive hamstring strengthening*
- Can progress leg press and knee bends past 70° knee flexion after 16 weeks

##### Therapeutic Exercise:

- Continue as in previous stages
- Double leg press 0-70° with progression to single leg
- Balance squats
- Squat progression
- Single leg bridges starting during week 16
- Proprioceptive and balance exercises
- Progress stationary bike resistance and duration

### PHASE IV

#### 19 – 24 WEEKS AFTER INJURY

##### Precautions

- Patient to remain in Jack PCL brace for all activities

##### Goals:

- Continue to build strength, single leg endurance for all lower extremity musculature with increasing emphasis to developing power

##### Therapeutic Exercise:

- Continue OKC and CKC strength and endurance work with progressive weight
- Initiate initial sport-specific drills near end of this phase

## PHASE V

### 25 – 36 WEEKS AFTER INJURY

#### Goals:

- Patient education and return to activity progressions
- Patients can be weaned out of the Jack brace starting at 24 weeks if they are ready

#### Therapeutic Exercise:

- Initiate absorption activities
- Continue strength and endurance exercises, OKC for quadriceps and hamstrings
- Straight line jogging progression:
  - Outline:
    - Wk 1: 4 minute walk; 1 minute jog for 15 – 20 minutes
    - Wk 2: 3 minute walk; 2 minute jog for 20 minutes
    - Wk 3: 2 minute walk; 3 minute jog for 20 minutes
    - Wk 4: 1 minute walk; 4 minute jog for 20 minutes
- Once running progression is completed, continue single plane agility with progression to multi-planar agility
- Sport-specific drills
- **FLEE Testing**