Posterior Cruciate Ligament Reconstruction
Post-Operative Physical Therapy Protocol

General considerations:
-Patients are weight bearing as tolerated with crutch use as needed post-operatively.
-Patients will use a hinged brace LOCKED IN FULL EXTENSION for 4 weeks post-op. It is to be used when up and moving around and not needed for controlled exercises or sleeping.
-Early emphasis should be placed on achieving full passive terminal extension equal to the opposite side.
-*No resisted knee flexion exercises for 4 weeks post-op.
- Regular manual care of the patella, patella tendon, and portals should be performed to prevent fibrosis.
- All times should be considered approximate with actual progression based upon clinical presentation.
- Passive flexion (bending) once or twice per day to maintain motion.

Week 1:
-M.D./Nurse appointment for dressing change day 2, review of home program.

Manual:
- Effleurage for edema, soft tissue mobilization to surrounding tissues, gentle range of motion.
  - "No touch zone" 2 inches from incisions/ portals x 4 weeks.

Exercise:
- Gait training, pain and edema control, and muscle stimulation to improve quadriceps recruitment.
  - Ankle pumps, quad and adduction sets, leg raises in multiple planes (except hip extension), mild
    isometric
    resisted knee extension (between 0-60 degrees).
  - Well-leg stationary cycling and UBE for cardiovascular. Upper body weight machines and trunk
    exercises.

Goals:
Decrease pain and edema.
Gait weight bearing as tolerated with brace locked in full extension x4 weeks.

Weeks 2-4:

Manual:
- Continue with effleurage, soft tissue mobilization, patellar glides, range of motion.

Exercise:
- Progress weight bearing and functional mobility as able.
  - Passive flexion and extension stretching. Push for full hyperextension within this time.
  - Prone hip extension exercises performed in full knee extension only.
  - Submaximal quad, knee extension and adduction isometrics in multiple ranges.
  - Short range (0-60 degrees) squats/knee bends, calf exercises, standing hip exercises.
  - Balance and proprioception exercises.
  - Weight machines consisting leg press, calf raises, hip machines and abduction/adduction.
  - Progress to two-legged cycling and short range stair machines as able.

Goals:
Decrease pain and edema.
Progress weight bearing as able with focus on good gait mechanics, brace locked in full extension x 4 weeks.
### Posterior Cruciate Ligament Reconstruction
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#### Weeks 4-6:
- **MD appointment at 4 weeks, wean off the use of the brace.**

**Manual:** - Continue with soft tissue, joint mobilizations, patellar glides.

**Exercise:** - Introduce hamstring curls against gravity without resistance. Focus on eccentrics.  
- Gradually increase the depth of knee bends, step exercises and proprioception exercises.  
- Add toe straps and gradual resistance with stationary bike.  
- Swimming and pool workouts as soon as incisions are well-healed.

**Goals:**
- Gait full weight bearing, good mechanics with no brace.  
- Range of motion 80% of non-surgical leg.

#### Weeks 6-8:
- **Continue with soft tissue, joint mobilizations, patellar glides to increase range of motion.**

**Exercise:** - Add lateral training exercises (i.e. lateral stepping, lateral step-ups).  
- Continue to increase the intensity and resistance of other exercises.  
- Passive range of motion should be near normal.

**Goals:**
- Full range of motion.

#### Weeks 8-12:
- Begin hamstring flexion exercises against light resistance (i.e. open-chain, hamstring curls).  
- Continue to increase functional exercises, endurance, strength, and proprioceptive type exercises.

**Goals:**
- Initiate sport specific training drills.

#### Weeks 12-16:
- Sports Test 1, initiate return to run program.  
- Goals are to increase strength, power and cardiovascular conditioning.  
- Sport-specific exercises and training program.  
- Maximal eccentric focused strengthening program.  
- Fit for functional PCL brace to be used for sporting activities and more ballistic rehabilitation training.

**Goals:**
- Pass Sports Test 1.  
- Return to low impact activities, slow progression to higher impact activities.

#### 4-6 months:
- Goals are to develop maximal strength, power and advance to sporting activities.
THE STONE CLINIC
ORTHOPAEDIC SURGERY, SPORTS MEDICINE AND REHABILITATION

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- Resisted closed-chain rehabilitation through multiple ranges.
- Running program, balance drills and agility program.