THE STONE CLINIC
ORTHOPAEDIC SURGERY, SPORTS MEDICINE, AND REHABILITATION
TOTAL KNEE REPLACEMENT
Post-Operative Rehabilitation Protocol

General considerations:
- All times are to be considered approximate, with actual progression based upon clinical presentation.
- Patients are weight bearing as tolerated with the use of crutches, a walker or a cane to assist walking until they are able to demonstrate good walking mechanics, then full weight bearing.
- Early emphasis is on achieving full extension equal to the opposite leg as soon as able.
- No passive or active flexion range of motion greater than 90 degrees until stitches are removed.
- Regular manual treatment should be conducted to the patella and all incisions so they remain mobile.
- Early exercises should focus on recruitment proper quadriceps set.
- No resisted leg extension machines (isotonic or isokinetic) at any point in the rehab process.

Week 1:
- M.D./nurse visit after hospital discharge to change dressing and review home exercise program.
- Icing, elevation, and aggressive edema control (i.e. circumferential massage, compressive wraps).

Manual:
- Soft tissue treatments and gentle mobilization to the posterior musculature, patella, and incisions to avoid flexion or patella contracture.

Exercise:
- Initiate quadriceps/gluteal sets, gait training, balance/proprioception exercises.
  - Straight leg raise exercises with proper quad set (standing and seated).
  - Passive and active range of motion exercises.
  - Well leg cycling and upper body conditioning.

Goals:
Decrease pain and edema.
Range of motion <90 degrees (until stitches removed).

Week 2-4:
- Nurse visit at 14 days for stitch removal and check-up.

Manual:
- Continue with soft tissue treatments and gentle mobilization to the posterior musculature, patella, and incisions to avoid flexion or patella contracture.

Exercise:
- Continue with home program, progress flexion range of motion, gait training, soft tissue treatments, and balance/proprioception exercises.
  - Incorporate functional exercises as able (i.e. seated/standing marching, hamstring carpet drags, hip/gluteal exercises, and core stabilization exercises).
  - Aerobic exercise as tolerated (i.e. bilateral stationary cycling as able, upper body ergometer)
**Goals:**
Decreased pain and edema.
Range of motion ≤ 10 degrees extension to 100 degrees.

**Week 4-6:**
-M.D. visit at 4 weeks.

**Manual:**
-Soft tissue treatments and gentle mobilization to the posterior musculature, patella, and incisions to avoid flexion or patella contracture.

**Exercise:**
-Increase the intensity of functional exercises (i.e. progress to walking outside, introducing weight machines as able).
-Continue balance/propioreception exercises (i.e. heel-to-toe walking, assisted single leg balance).
-Pool work outs once incisions completely closed.

**Goals:**
-Gait without a limp.
-Range of motion ≤ 5 degrees extension to 110 degrees.

**Week 6-8:**

**Manual:**
-Continue soft tissue treatments, joint mobilizations, patellar glides to increase range of motion.

**Exercise:**
-Add lateral training exercises (i.e. lateral steps, lateral step-ups, step overs) as able.
-Incorporate single leg exercises as able (eccentric focus early on).

**Goals:**
-Patients should be walking without a limp.
-Range of motion should be 0 to 115 degrees.

**Week 8-12:**

**Manual:**
-Continue soft tissue treatments, joint mobilizations, patellar glides to increase range of motion.

**Exercise:**
-BEGIN to incorporate activity specific training (i.e. household chores, gardening, sporting activities).
-Low impact activities until week 12.
-No twisting, pivoting until after week 12.
-Patients should be weaned into a home/gym program with emphasis on their particular
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TOTAL KNEE REPLACEMENT

Post-Operative Rehabilitation Protocol

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### Goals:
- Range of motion within functional limits.
- Return to all functional activities.