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POST-OPERATIVE REHABILITATION PROTOCOL

Total Knee Arthroplasty

Acute Phase (0–2 Weeks) Goals

- Active quadriceps muscle contraction; sufficient quadriceps control to allow safe independent ambulation.
- Passive knee extension to 0°; knee flexion to 90° or greater; control of swelling.

DAY 1 UNTIL HOSPITAL DISCHARGE

- Weight bearing as tolerated with walker / crutches; elevation for edema control.
- Ice 20 minutes of every hour for edema and pain control.
- Gait training: continue safe ambulation for 50 feet, instruct in transfers and stairs prior to discharge.

HOME EXERCISES TO INCLUDE

- Ankle pumps with leg elevation; quad sets; knee extension with patient generated overpressure.
- Gentle knee flexion stretches (i.e. heel slides); outpatient physical therapy should be scheduled prior to surgery.

DAYS 3 TO 14

- Begin outpatient physical therapy at approximately 2 days post-op.
- Change bandage at 1 week post-op unless excessive drainage is evident then change sooner. Staple removal at 14 days post-op by PT or in office at which time shower normally without a bandage covering the incision. No submersion.
- Gait training with appropriate assistive device; continue elevation and ice for edema and pain control.
- Tubigrip stocking for edema control; perform home exercise program (HEP) as issued by P.T.
- Instruct in all appropriate transfers for independence in home.

EXERCISES TO INCLUDE

- Ankle pumps with leg elevation; quad sets; knee extension with patient generated overpressure.
- Stretch hamstrings, gastroc-soleus.
- Active assistive range of motion knee flexion: i.e wall slides, seated knee flexion.
- Active terminal knee extension with bolster; straight leg raises (flexion, extension, abduction).
- AROM knee extension exercises, long and short arc quads; AROM knee flexion exercises.
- Terminal knee extension (biodex, theraband, seated); mini squats to ¼ depth; gait and balance.

Sub-Acute Phase (Weeks 2–6)

GOALS

- Full range of motion 0–120°; enhance muscular strength/endurance; minimize swelling / inflammation.
- Return to functional activities.

Weeks 2–4

- Continue ice, compression, and elevation for edema and pain control.
- Continue gait training. Wean from assistive device as able to safely without limp.

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EXERCISES TO INCLUDE

- Continue all exercises listed previously; knee RROM extension exercises 90–0° (long arc quads); resisted hamstring curls.
- Bicycle for range of motion, may progress to a program per tolerance; step ups forward and lateral.
- Wall squats 45° knee flexion, progress to tolerance; seated leg press machine; progress balance and proprioception .

Weeks 4–6

- Continue all exercises listed previously with appropriate progressions.
- Progress to Nautilus type equipment for resisted knee extension and hamstring curls.
- Initiate progressive return to ADL's and walking. Final Phase (Weeks 7–12) Goals:
- Progression of range of motion, 0–120° and greater; maximize strength, proprioception, and endurance.
- Cardiovascular fitness; functional activity performance.

EXERCISES TO INCLUDE

- Continue all exercises listed previously; continue to progress walking program; continue pool program participation.
- Return to all gym programing.
- Progress all recreation and sporting activity to pre-surgical levels per MD clearance.
- Running and high impact activity are not allowed.
- When ROM, strength, gait, balance, and endurance are acceptable, patient may be placed on HEP.

Discharge Criteria

- Independent ambulation without assistive device, including stairs
- Functional ROM for ADLs; independent home program
- Low-impact recreation per Dr. Kelly

Time frames are guidelines — progress when phase goals are met, per Dr. Kelly and the treating therapist.