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## **Dr. Akhtar's Knee Replacement Protocol**

### **1. General Principles**

- a. Ice frequently throughout the day
- b. Move knee frequently throughout the day to decrease startup pain from stiffness
- c. Dependent leg edema and swelling is common. TED hose worn during the day can prevent this. Treatment is elevation, mobilization, and ankle pumps.
- d. Home exercises should be performed 3 to 5 times per day.
- e. Patient is weightbearing as tolerated with a rolling walker, cane, or crutches.
- f. Patient can progress from a walker to a cane when s/he can demonstrate equal weight distribution, adequate balance, and limited limp.
- g. DVT prophylaxis: Aspirin 325mg every 12 hours for 3 weeks. If patient cannot tolerate nsaids, then warfarin dosed to that the INR is less than 2.5.
- h. Driving: no driving for 6 weeks for right knee replacements; no driving for 4 weeks for left knee replacements.

### **2. Wound management**

- a. The incision will have steri-strips and the incision does not need to be covered. In the rare situation where staples are used, the incision does not need to be covered.
- b. It is ok to get the knee wet in the shower 1 week after the operation. Until then, the incision should be kept dry. NO BATHS FOR 6 WEEKS.
- c. If there is any drainage, then Dr. Akhtar should be called immediately. If after-hours, then leave a message for him on the office number. He will return the call within 1 hour with instructions. DO NOT start antibiotics to treat the incision unless specifically approved by Dr. Akhtar.

### **3. Therapy**

#### **Phase I: Day of operation to 3 weeks**

- Bike
- Heel slides

- Quad Sets – may be done with Russian for VMO activation
- Glut sets
- Short arc quad
- 4 way Straight leg raise
- Large arc quad
- Clamshells
- Calf Stretch
- Hamstring stretch
- Knee extension stretch
- Calf raises
- Marching
- Hamstring curls
- Mini squats
- Step Ups
- Manual therapy – patella mobilization, PA/AP tibial mobilizations (grade I/II)
- Modalities – ultrasound, interferential current
- Target range of motion: approximately 5° - 100°

## **Phase 2: Weeks 4-6**

- In addition to previous, add:
- AROM 0°-120°
- Add weight to straight leg raises up to 2#
- TKE with theraband
- Step Ups
- Step Downs
- Single leg stance
- Wall sits
- Manual Therapy – tibial mobilizations (grade I-III), fibular AP/PA mobilizations

**Phase 3: Weeks 7 to 3 months**

- In addition to previous, add:
- Increase weight with leg raises up to 5#
- Walking program – begin at ¼ mile and gradually increase
- Upper body machines
- For cardiovascular fitness – elliptical, walking outside or on a track, aquatic exercise, cycle
- NO treadmill walking due to compression on the new joint.
- Golf – may begin chipping or putting at 6 weeks, driving at 3 months, and then slowly progress into a full game

**Phase 4: 3 months +**

- In addition to previous, add:
- Begin using leg weight machines
- Recommended activities – elliptical, cycle, walking, aquatic exercise, low impact aerobics, yoga, tai chi, theraball exercises
- NOT recommended – running/jogging, high impact aerobics, jumping rope or plyometrics