

Total Knee Replacement Protocol

This protocol is designed to be used as a treatment **guideline** for patients undergoing total knee replacement surgery. This protocol is subject to modifications based upon the individual patient's surgical procedure, postoperative complications, and the patient's overall progress. Good communication with the surgeon is essential throughout the postoperative rehabilitative course to ensure appropriate progression of each patient.

GOALS OF RECOVERY (Within 4-6 weeks of surgery)

- Knee pain and swelling will be minimized.
- Early motion with passive knee range from 0 degrees extension to at least 90 degrees of flexion by discharge.
- Increased muscle strength of quadriceps to 3/5, hamstrings to 2/5, and independent straight leg raise (SLR) by discharge.
- Develop home exercise program
- Patient will walk with as normal a gait pattern as possible with appropriate weight bearing on the operative extremity, using an assistive device as needed

POSTOPERATIVE PRECAUTIONS

Weight bearing precautions

- Weight bearing as tolerated, with a walker, crutches, or a cane. May wean off assistive devices as tolerated.
- Complex revision surgeries, those requiring extensive bone grafting or those with complications intraoperatively may require a more limited touch down weight bearing status.

General precautions

- No exercises with weights or resistance.
- Avoid torque or twisting forces across the knee joint.
- No pivoting on the operative extremity when in a weight bearing position.

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HOME INSTRUCTIONS for patients

- EACH home exercise should be done 3 times a day (see home exercise sheet). Spread the exercises out into short sessions throughout the day to avoid fatigue.
- Change the position of your knee approximately every 30-45 minutes by exercising, stretching knee out straight, walking, etc. This will prevent stiffness and tight muscles in your new knee.
- Rest on your back at least 3 times a day, with a firm ankle roll to stretch your knee into full extension. Use hip roll if needed to keep knee straight up.
- When first home, it is common to notice swelling of the knee and lower leg. Do not be concerned as long as the swelling is down each morning. If significant, uncomfortable pain and/or swelling persist, you should call your doctor.
- Do NOT twist or pivot on your OPERATED leg when walking. Pick feet up in small steps when turning.
- Walk in short sessions as tolerated, including outdoors, when balance and endurance are adequate.
- Avoid low soft chairs. A firm, straight back chair with arms is best.
- You may return to work and/or drive at the discretion of your surgeon.

Phase II

Discharge to first follow up appointment with surgeon
(Usually in 4-6 weeks postoperatively)

- Patient will progress with active knee range and strengthening exercises, including prone lying exercises, usually under the guidance of a rehab, home care or outpatient physical therapist.
- Stationary bicycling is a very important aspect of the program and should be initiated as soon as possible, without resistance.
- Patients should wean from CPM over 1-2 weeks home, if one was rented.
- No exercises with weights or resistance are allowed.
- Walking with walker or 2 crutches can be progressed to community ambulation when strength and balance are adequate.
- Patient may bathe in a tub or begin pool therapy 2 weeks postoperatively, if the incision is completely closed and dry, and the external stitches or staples have been removed.

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Phase III

(First postoperative appointment through 12 weeks)

- No exercises with weights or resistance are allowed unless approved by surgeon.
- Refine gait pattern and posture as patient advances to full weight bearing.
- Patient will usually progress from bilateral support to 1 crutch or a cane, and then to no device as strength, balance and pain permit.
- Patient should not discontinue use of an assistive device if they have an antalgic gait pattern.
- Patient may return to work and/or driving at the discretion of the surgeon.

Phase IV

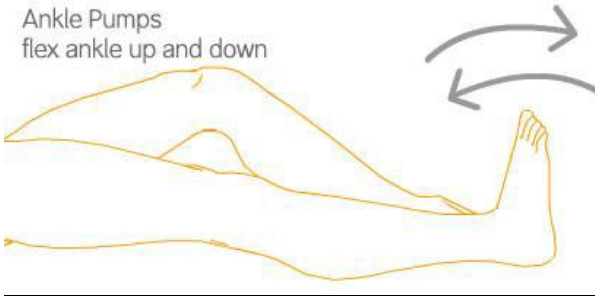
(After 12 weeks postoperatively)

- Patient is encouraged to participate in a low-impact activity to promote cardiovascular health and weight control. Examples of acceptable low impact activities include walking, bike riding, swimming and golfing.
- Patient should AVOID activities that involve quick start/stops, pivoting, jumping and high impacts such as downhill skiing, singles tennis, jogging, basketball and weight machines. By avoiding these activities, the longevity of the total knee replacement may be enhanced.
- Patient should discuss other specific activities with their surgeon before initiating.
- Exercises with weights or resistance are not allowed unless approved by the patient's surgeon.

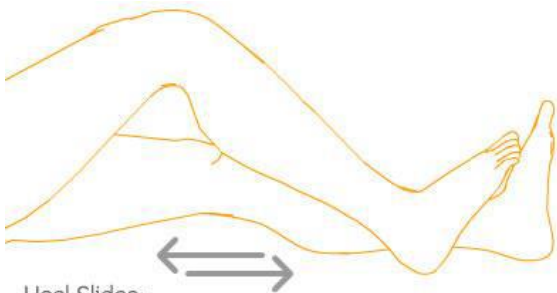
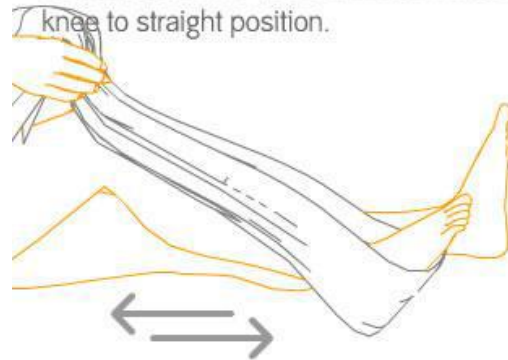
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Home Exercises for Knee Rehabilitation:

Ankle Pumps
flex ankle up and down

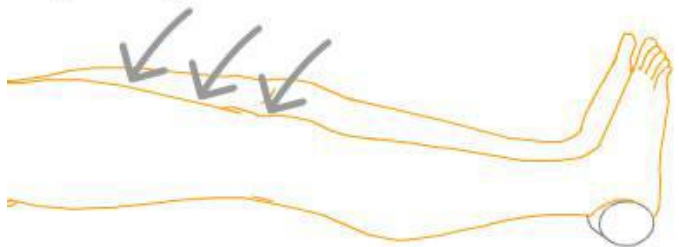


Knee flexion stretch:
Place a towel under your heel. Pull your knee towards your chest. Hold your knee in the flexed position for 15-20 seconds. Return knee to straight position.



Heal Slides:
Flex your hip and knee. Return knee to straight position.

Quadriceps Sets:
tighten thigh muscles and hold for 5 seconds



Knee Extension:
Place a pillow under your knee.
Lift your foot off the mat.



Leg Lifts:
Raise leg six inches above the floor,
keeping knee straight.

