

Hays Medical Center

Total Knee Replacement

General Principles:

This protocol was designed to provide the rehabilitation professional with a guideline of postoperative care. It should be stressed that this is only a protocol and should not be a substitute for clinical decision making regarding a patient's progression. Actual progression should be individualized based upon your patient's physical examination, progress, and presence of any complications.

Due to extreme physical variances in the patient population undergoing a Total Knee Replacement surgery, the following protocols are designed to provide guidelines for the clinician to progress patients during their rehabilitation. The clinician may alter patient progress to accommodate these physical variations. (Ex. – age, medical problems, cardiovascular conditioning, etc.)

PHASE I: (Immediate Post-Op)

Week 1

Orthotics-

1. Elastic bandage and/or TED hose as directed by physician

Weight bearing-

1. May progress weight-bearing as tolerated, unless otherwise directed by physician
2. Utilize walker and /or other assistive device as needed

Modalities-

1. Patients are encouraged to use polar care unit/ice for 20 minutes following exercises and as needed for pain control throughout protocol
2. Other modalities at the discretion of the therapist based on clinical findings

Wound care-

1. Dressings should only be changed by physician unless bandages are saturated
2. Notify physician's office if dressing change was necessary due to wound drainage

ROM-

1. May utilize AROM, AAROM, and PROM to increase ROM as tolerated

Exercises-

1. Quad Sets, Hamstring Sets
2. Heel Slides, Wall Slides to progress ROM as tolerated
3. Ankle Pumps and Circles
4. Straight leg raises (all planes)
5. Short-Arc Quads, progress to full arc
 - a. No resistance to start
 - b. No resistance until full extension is achieved
 - c. May utilize AAROM if necessary
6. Prone Hangs, Supine extension stretching w/ heel propped

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PHASE II: (Intermediate)

Week 2 - 3

Orthotics-

1. Elastic bandage as needed to control swelling
2. TED hose as directed by physician

Weight Bearing-

1. Weight-bearing as tolerated unless otherwise directed by physician
2. Utilize cane / assistive device as needed

Modalities (PRN)-

1. Modalities at the discretion of the therapist based on clinical findings

Wound care-

1. Dressings should only be changed by physician unless bandages are saturated
2. Notify physician's office if dressing change was necessary due to wound drainage

ROM-

1. Active and Passive ROM progressing to full as tolerated

Exercises-

1. Continue Phase I exercises
2. May initiate Stationary bike, Nu-Step
3. Begin closed-chain strengthening exercises as weight bearing and strength allows
 - a. Shuttle, Bilateral progressing to Unilateral
 - b. Mini-Squats, Calf Raises
 - c. Standing weight shifts, single leg balancing
 - d. Step Ups, Start with 2 inch step, focus on quality quad control
3. Hamstring progressive resistance exercise as tolerated, full arc
4. Gentle patella mobilizations as tolerated

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PHASE III: (Strengthening)

Week 4 – 6

Orthotics-

1. Elastic bandage only as needed
2. TED hose as directed by physician

Weight Bearing-

1. Should be full weight-bearing with normal gait
2. May discontinue cane / assistive device as appropriate with proper gait

Modalities (PRN)-

1. Continue only as needed

ROM-

1. Maintain full active and passive ROM

Exercises-

1. Continue Phase II exercises
2. Elliptical Runner
3. Progress closed chain activity
 - a. Lunges
4. Aquatics may be started once wound is fully healed and surgical staples are removed

PHASE IV: (Advanced Strengthening)

Week 7+

Orthotics-

1. May discontinue TED hose

Exercises-

1. Consider dismissal from formal rehabilitation when strength/functional goals have been met
2. Progress to long-term fitness program to maximize survivorship of the new joint
 - Including free weight and weight machines
 - Advance and continue flexibility and balance training
3. Initiation of light sports activity, if appropriate
 - Examples: Swimming, biking, walking, golfing, and bowling
4. Avoid high impact activities such as running, jumping, and skiing until 1 year post-op