This rehabilitation program is designed to return the individual to their full activities as quickly and safely as possible, following a total knee replacement. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based total knee replacement guideline is criterion-based; time frames and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual’s goals for activity following a total knee replacement.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient’s post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

**Precautions:**

* WBAT
* If patient has a concomitant injury/repair, weight bearing or treatment may vary-consult with physician.

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| **Phase** | **Suggested Interventions** | **Goals/Milestones for Progression** |
| Preoperative: | PT for manual therapy to improve ROM, therapeutic exercises to improve functional strength, modalities to control pain and inflammation, educate patient on upcoming surgery and beginning post-op exercises. | Instruct items as needed to address current deficit. |
| **Phase I**  *Date of Surgery –*  *2 – 3 Weeks* | *Therapy:*  *In Hospital:*   * Begin bed mobility, transfers, sitting EOB, standing EOB with FWW, and ambulation day of surgery. * Continue AAROM and AROM exercises including: * Ankle pumps, quad sets, ham sets, SAQ, SLR * Continue bed mobility and transfers/gait with FWW. * Begin ADL training including:   + Reacher, sock aide, etc. * Progress mobility with FWW. * Progress to independent exercises including: * LAQ, hamstring curls, polish the floor, bend on ball, as appropriate * Instruct in HEP * Address stair/curb training as needed * Assist pt in acquiring equipment including: Bath chair, reacher, sock aide, toilet raiser, etc. * Safe functionally within the home   Outpatient:   * Control pain and inflammation, modalities PRN * Progress strengthening, muscle re-education, ROM, HEP, and independent mobility * ROM goal of (0-100) degrees * Soft tissue mobilization for scar management. * PROM/assisted stretch/grade 1-2 joint mobilization. * Stationary bike on low resistance, “rocking” if unable to perform revolutions. * Gait training to increase weight bearing tolerance, decrease need for AD and progress to cane or no AD * Stair training using reciprocal pattern | *Goals of Phase:*   1. Skin healing 2. Protection of joint replacement 3. Return to least restrictive environment for continued care   *Criteria to Advance to Next Phase:*   1. Sutures are removed |
| **Phase II**  *Weeks 3 – 6* | *Therapy:*   * Regain endurance * Increase coordination and proprioception * Improve strength * ROM 0-110 * Restore normal gait, wean off assistive devices at 4 weeks. * Control pain and inflammation with modalities PRN * Progress HEP * Strengthening in open and closed chain * Joint mobilization and assisted ROM * Proprioceptive exercises | *Goals of Phase:*   1. Healing 2. Swelling reduction 3. Increase in ROM 4. Improved strength 5. Neuromuscular re-education   *Criteria to Advance to Next Phase:*   1. Healing as expected. |
| **Phase III**  *Weeks 7 – 12* | *Therapy:*   * Return to prior activity * Improve flexion ROM past 110 degrees * Gain eccentric-concentric control of limb * Independent ambulation * Progress to more independent HEP. * Direct treatment to residual restrictions in ROM, strength, or function. | *Goals of Phase:*   1. Swelling reduction 2. Increase in ROM 3. Neuromuscular re-education 4. Develop baseline of lower extremity control and strength   *Criteria to Advance to Next Phase:*   1. Normal Gait pattern 2. Pain control 3. Edema managed 4. Goals achieved for ROM 5. Independent HEP. |