



TOTAL KNEE ARTHROPLASTY REHABILITATION GUIDE

PHASE	SUGGESTED INTERVENTIONS	TO ADVANCE TO NEXT PHASE
<p>PHASE I EDUCATIONAL PHASE</p>	<p>Goal: -Explore a comprehensive overview that encompasses the anatomy, pre-existing pathology, postoperative rehabilitation schedule, bracing considerations, and anticipated progressions. Will provide guidance on preoperative exercises for prospective joint replacement candidates.</p> <p>This education will encompass: Home Safety: - Emphasize practices and adjustments at home to ensure a safe environment post-surgery. Equipment Recommendations: - Offer advice on recommended equipment that can aid in the recovery process, such as assistive devices. Pre-Surgical Lower Extremity (LE) Exercises: - Provide instructions on exercises specifically targeted at the lower extremities to enhance strength and flexibility before surgery. Postoperative Pain Expectations: - Educate candidates about what to anticipate in terms of postoperative pain and how to manage it effectively.</p>	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Comprehensive grasp of preoperative exercises, instructions, and the overall care plan.
<p>PHASE II INPATIENT/ ACUTE CARE PHASE</p>	<p>Goal: -Provide comprehensive education and training sessions for patients and their families or coaches, whether in individual or group settings. Cover essential topics such as safety during mobilization and transfers, activities of daily living (ADLs), edema management through techniques like icing and elevation, guidance on Home Exercise Programs (HEP), instructions on home modification for enhanced recovery, and the appropriate use of compression as indicated by the physician. This holistic approach aims to empower individuals and their support networks with the knowledge and skills necessary for a successful and safe rehabilitation journey.</p> <p>Home Exercise Program: - Two times per day in the hospital and at home</p> <p><i>*Ask a healthcare provider for recommended exercises during this phase</i></p>	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Perform active assisted range of motion (AAROM) for the knee within the range of 5 to 90 degrees. 2. Engage in antigravity quadriceps strengthening using Straight Leg Raises (SLR) and Terminal Knee Extensions (TKE). 3. Release from the acute care setting.
<p>PHASE III MUSCLE & MOBILITY ACTIVATION PHASE 0-3 WEEKS</p> <p>4-6 EXPECTED VISITS</p>	<p>Goal: -Conduct a comprehensive assessment of knee outcomes using the Complete Knee Outcome Measure, with options such as WOMAC or KOOS JR. Incorporate manual therapy techniques, focusing on patellar and tibiofemoral mobilizations, to enhance joint mobility. Integrate stretching exercises, encompassing knee extension and flexion in both supine and sitting positions, including a low-load, long-duration knee extension stretches in the supine position. Additionally, consider the application of modalities to complement the overall rehabilitation approach. This multifaceted strategy aims to address various aspects of knee function, mobility, and flexibility to optimize the rehabilitation process.</p> <p>ROM: -Range of Motion (ROM): Engage in passive and Active Assisted Range of Motion (AAROM) exercises as tolerated.</p> <p>-Apply edema-controlling treatments. Consider Neuromuscular Electrical Stimulation (NMES) or biofeedback to enhance quadriceps control.</p> <p><i>*Ask a healthcare provider for recommended exercises during this phase</i></p>	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Manage swelling effectively. 2. Ensure sufficient control of quadriceps. 3. Achieve safe ambulation with the assistance of mobility devices. 4. Maintain control over postoperative pain levels, aiming for a range of 0 to 3 out of 10 during activities of daily living (ADLs).

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<p>PHASE IV MOBILITY & CONDITIONING PHASE 3-6 WEEKS</p> <p>7-12 EXPECTED VISITS</p>	<p>Goal:</p> <ul style="list-style-type: none"> -Specific Instructions: <ul style="list-style-type: none"> - Maintain continuity with the previous exercise program. - Consider performing a 6-minute walk test, timed up-and-go, 30-second sit-to-stand, or stair climbing test if deemed appropriate. - For inquiries about driving, direct any questions to a physician. <p>Suggested Treatments:</p> <ul style="list-style-type: none"> -Progress the Range of Motion (ROM) program, extending to 0-110 degrees. -Continue with patellar and tibiofemoral mobilizations during manual therapy sessions. -Persist with knee extension and flexion stretches in both supine and sitting positions. -Apply modalities as indicated, with a focus on edema-controlling treatments if deemed appropriate. 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Achieve reduction of post-operative swelling and inflammation, aiming for no to trace effusion. 2. Attain Active Range of Motion (AROM) from 0 to 110 degrees in the supine position, gradually increasing as tolerated. 3. Demonstrate normal gait mechanics with or without the use of an assistive device.
<p>PHASE V ADVANCED MOVEMENT & STRENGTHENING PHASE 6-9 WEEKS</p> <p>8-14 EXPECTED VISITS</p>	<p>Goal:</p> <p>-Conduct a comprehensive outcome assessment, utilizing measures such as WOMAC or KOOS. Additionally, consider the completion of the 6-minute walk test, with a significant change indicated by a 60-meter difference. The stair climbing test is another evaluative tool, with a significant change noted at 5.5 seconds. Sustain the application of manual therapy, specifically continuing patellar and tibiofemoral mobilizations. Implement modalities as deemed appropriate based on the individual's needs and condition. This integrated approach ensures a thorough evaluation of outcomes and continued targeted interventions for optimal rehabilitation progress.</p> <p>ROM:</p> <ul style="list-style-type: none"> -Gradual Range of Motion with the achievement of 0-120 degrees. <p>EXERCISES/ ACTIVITIES:</p> <ul style="list-style-type: none"> -Maintain continuity with the exercises outlined in the previous phase, incorporating a progressive increase in resistance and repetitions for continued advancement. <ul style="list-style-type: none"> - Integrate core stabilization exercises as needed, including physio ball bridges, side bridge variations, modified side and front planks, and squats with shoulder flexion/extension. - Incorporate agility exercises suitable for the individual's progress, such as side-stepping, retro walking, and braiding. - Sustain engagement in the aquatic program, encompassing both pool exercises and walking activities. - Provide guidance on executing safe kneeling and floor-to-stand transfers. <p>-This cohesive approach ensures a well-rounded and progressively challenging exercise regimen to enhance overall strength, stability, & agility.</p>	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Achieve Active Range of Motion (AROM) from 0 to 120 degrees. 2. Independently ascend and descend stairs reciprocally.
<p>PHASE VI RETURN TO BASIC ACTIVITY PHASE 9+ WEEKS</p> <p>9-15 EXPECTED VISITS</p>	<p>Goal:</p> <p>-Incorporate a progressive continuation of the exercises mentioned in previous phases, adjusting as needed for ongoing progression to regular activities. Simultaneously, initiate the return to specific recreational activities and gradually reintroduce activities like progressive walking or biking programs. This integrated approach ensures a comprehensive strategy, accommodating both continued exercise advancement and the gradual reintegration into recreational pursuits.</p>	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Achieve an independent, non-antalgic gait. 2. Resume pain-free engagement in activities. 3. Demonstrate normal strength in the lower extremity. 4. Attain Active Range of Motion (AROM) from 0 to 120 degrees.