



Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

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REHABILITATION PROTOCOL- Knee arthroscopy, partial meniscectomy

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

INDIVIDUAL CONSIDERATIONS: S/p

PHASE 1- Surgery to 2 weeks

REHAB GOALS	<ol style="list-style-type: none"> 1. Protection of the post-surgical repair 2. Restore full knee range of motion 3. Restore leg control – no lag with straight-leg-raise 4. Restore normal gait 5. Eliminate effusion/swelling
PRECAUTIONS	<ol style="list-style-type: none"> 1. Crutches and weight bearing as tolerated until normal gait. 2. Avoid impact activities for 4-6 weeks if chondroplasty done 3. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Heel props, prone hangs for passive knee extension ○ Patellar mobilization- superior/inferior and medial/lateral ○ Passive knee flexion, active/active assist knee extension ○ Hamstring & calf stretches
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Quad sets ○ SLRs in 4 planes as tolerated, begin with flexion only, when no extensor lag progress to 4 plane. ○ Calf pumps, ankle strengthening exercises ○ Gait training ○ NMES as tolerated

CARDIOVASCULAR EXERCISE	Upper body circuit training or UBE. Stationary bike- high seat, low resistance
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Straight leg raise without extension lag ○ No effusion ○ Knee flexion to 90 degrees ○ Good patellar mobility

PHASE 2- 3-6weeks

REHAB GOALS	<ol style="list-style-type: none"> 1. Protection of the post-surgical repair 2. Restore knee range of motion – full knee extension and Knee flexion 3. Regain quadriceps control 4. Minimize pain and swelling
PRECAUTIONS	<ol style="list-style-type: none"> 1. Avoid impact activities if articular cartilage debrided 2. Avoid post activity swelling 3. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue phase 1 ○ Calf, IT band, hip flexor and hamstring stretches ○ Patellar mobilizations
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Quad sets, multiangle quad isometrics ○ SLRs in all planes, add ankle weights <10% of body weight if tolerated ○ Calf pumps, ankle strengthening exercises ○ Minisquats ○ Double leg balance w/knee flexed 20-30 deg, balance board ○ Week 4-hamstring curls (0-90deg), leg press (70-10deg), hip/gluteal strengthening, short arc quad/VMO strengthening
CARDIOVASCULAR EXERCISE	Upper body circuit training (seated), elliptical, stairmaster, nordik track
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Straight leg raise in all 4 planes without extension lag ○ No effusion ○ Full knee range of motion & normal gait ○ Normal patellar mobility

PHASE 3- 7-11 weeks postop

REHAB GOALS	<ul style="list-style-type: none"> ○ Maintain full ROM
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	<ul style="list-style-type: none"> ○ Improve quad strength & endurance ○ Progress functional activities, balance, proprioception
PRECAUTIONS	<ul style="list-style-type: none"> ○ Avoid posterior knee pain with deep flexion exercise ○ Avoid single leg squats
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue exercises from phase 2.
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Continue phase 2 exercises ○ Straight leg raises in 4 planes, minisquats (0-45) can add rubber tubing ○ Hamstring curls ○ Knee extension, active 90-30 deg ○ Hip & gluteal strengthening ○ Leg press 70-10 deg ○ 2 legged balance board, progress to single leg balance. Add unstable surfaces, perturbations as tolerated ○ Lateral step ups (5-10cm block) ○ Resisted gait training ○ Upper body & core strengthening
CARDIOVASCULAR EXERCISE	<p>Continue phase 2 Add swimming, treadmill walking</p>
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Normal gait on all surfaces without assistive device ○ Able to perform ADLs without problem ○ Full, painless range of motion ○ Can walk 20 minutes without pain

PHASE 4- 12+ weeks postop

REHAB GOALS	<p>Improve muscle strength & endurance Progress functional activity Return to sport/work</p>
PRECAUTIONS	<p>Post-activity soreness should resolve within 24 hours Avoid post activity swelling Avoid posterior knee pain with deep flexion exercise</p>
RANGE OF MOTION EXERCISES	<p>Continue with flexibility exercises</p>
SUGGESTED	<ul style="list-style-type: none"> ○ Progress phase 3 activities with resistance/weight ○ Progress balance and proprioceptive exercises from Phase 3 to

<p>THERAPEUTIC EXERCISES</p>	<p>single leg stance, unstable platform</p> <ul style="list-style-type: none"> ○ Plyometrics: must have completed running program, level surface box hops, double leg hops (land in flexion), single leg hops, vertical box hops. ○ Agility, sport specific: cutting, carioca, figure 8 if tolerated. Begin at low speed and progress as tolerated
<p>CARDIOVASCULAR EXERCISE</p>	<p>Continue phase 3 Walk/run progression</p>
<p>PROGRESSION CRITERIA</p>	<ul style="list-style-type: none"> ○ Balance, hamstring & quad strength within 10% of normal side ○ No patellofemoral irritation, pain or swelling ○ Completion of functional and running programs ○ No issue with trial return to sport/work/activity