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Sports Medicine Knee, Hip and Ankle Arthroscopy

ACL PHASED REHABILITATION GUIDELINES

- General Guidelines
 - Allow 12 weeks for complete graft re-vascularization, longer with allografts
 - Supervised physical therapy takes ~9 months
 - The patient should be performing exercises for the knee at least 5 days per week
 - Good communication between patient, therapist, and surgeon is key

- Physical Therapy Attendance: the following is an approximate schedule for supervised physical therapy visits.
 - Phase I: 1 visit/week
 - Phase II: 2-3 visits/week
 - Phase III: 2-3 visits/week
 - Phase IV: 1 visit/ 1-2 weeks

- Rehabilitation Progression: the following is a general guideline for the progression of rehabilitation following ACL reconstruction. Progression through each phase should take into account patient status (eg healing, function) and physician advisement. Please consult the physician if there is any uncertainty concerning advancement of a patient to the next phase of rehabilitation.

- **Phase I**
 - Goals
 - Protect graft fixation (assume 8 weeks fixation time)
 - Full knee ROM
 - Pain/edema reduction
 - Normalize balance/proprioception abilities
 - Begin and enhance normalization of quad recruitment
 - Educate patient on rehabilitation progression
 - Therapeutic Exercises
 - Quad sets/hamstring co-contractions at multiple angles, 3x10 2-3X's daily
 - Heel slides
 - Begin patella mobilizations
 - SLR, in all planes 3x10 2-3x's daily
 - Obtain full passive extension with bolster under heel or prone with leg off table
 - Quad isometrics at 60° and 90°
 - Modalities as needed
 - Treadmill walking-forward and retro

- **Phase II:** Begins approximately 6 weeks post-op and extends to approximately 8 weeks
 - Criteria for advancement to Phase II
 - Good quad set, SLR without extension lag
 - Approximately 90° of flexion
 - Full extension
 - No signs of active inflammation
 - Goals
 - Restore normal gait
 - Maintain full extension (especially hip extension), progress flexion ROM
 - Protect graft fixation
 - Initiate open kinetic chain hamstring exercises
 - Therapeutic Exercises
 - Wall slides 0° to 45°, progression to mini-squats
 - 4-way hip
 - Closed chain terminal extension with resistive tubing or weight machine
 - Stationary bike to increase ROM, start with high seat and progress to normal seat height when able, resistance as tolerated
 - Single leg stands for balance/proprioception on Airex pad or trampoline
 - Hamstring curls
 - Aquatic therapy with emphasis on normalization of gait
 - Continue hamstring stretches, progress to weight bearing gastroc/soleus stretches
 - Monitor closely for patella-femoral signs and symptoms, manage them accordingly

- **Phase III:** Begins approximately 8 weeks post-op and extends to approximately 5-months
 - Goals
 - Full ROM
 - Improved strength, endurance, and proprioception of the lower extremity to prepare for functional activities
 - Avoid overstressing the graft fixation
 - Protect the patellofemoral joint
 - Therapeutic Exercises
 - Continue flexibility exercises as appropriate for patient
 - Stairmaster: start with shallow steps with feet flat on steps and weight on heels, progress depth as tolerated to normal step depth
 - Versa Climber, Fitter, Nordic Track and Elliptical Trainers OK
 - Advance closed chain strengthening (single leg squats, leg press 0°-45°, unilateral step ups-start with 2" and progress to 8", emphasize control during the decent phase to step up)
 - Progress aquatic program to include pool running, swimming (no breaststroke)

- **Phase IV:** Begins approximately 5 months and extends through approximately 7-9 months
 - Criteria for advancement to phase IV
 - Full, pain free ROM
 - No evidence of patellofemoral joint irritation
 - Strength and proprioception approximately 70% of uninvolved leg
 - Physician clearance to initiate advanced closed kinetic chain exercises and functional progression
 - Goals
 - Progress strength, power, proprioception to prepare for return to functional activities
 - Therapeutic Exercises
 - Continue and progress flexibility and strengthening program
 - Initiate plyometric program as appropriate to patient's functional goals
 - Functional progression including but not limited to:
 - Walk/jog progression
 - Forward, backward running ½, ¾ and full speed
 - Lateral movements-stepping, shuffling, hopping, carioca
 - Initiate sports specific activities under supervision of ATC or PT

- **Phase V:** Begins approximately 7-9 months post-op
 - Criteria for advancement to Phase V
 - No patellofemoral or soft tissue complaints
 - Necessary joint ROM, strength, endurance, and proprioception
 - Patient education with regard to any possible limitations
 - Therapeutic Exercises
 - Gradual return to sports participation
 - Maintenance program for strength, endurance