



Isolated Medial Patellofemoral Ligament Reconstruction Rehabilitation Protocol

Phase	Goals	Precautions / Restrictions	Treatment
Weeks 0 – 2	<ul style="list-style-type: none"> • Protect surgical site • Reduce pain and swelling • Active ROM – 0 – 90° • Full passive extension • Active quadriceps control • Hamstring / glute activation • Reduce muscle atrophy • Safe use of assistive device 	<ul style="list-style-type: none"> • Weight Bearing As Tolerated • Avoid Knee Valgus Forces • Perform standard ROM progression starting with PROM → AAROM → Active ROM 0 - 90° 	<ul style="list-style-type: none"> • Progress ROM from 0 - 90° <ul style="list-style-type: none"> ◦ PROM → AAROM → AROM • Quadriceps recruitment / NMES • Global LE / hip strengthening • Gait training with crutches • Cryotherapy / Modalities as indicated • Cryotherapy: 5-7 times per day • Initial Visit: FOTO, LEFS, PSFS
Weeks 2 – 6	<ul style="list-style-type: none"> • Full, symmetric and pain-free AROM <ul style="list-style-type: none"> ◦ 2 - 4 weeks: 0-120° ◦ 4 - 6 weeks: full ROM • SLR without extensor lag • Normalized gait mechanics • DL squat with good mechanics • Progression of quadriceps strength/endurance • Increase functional activities 	<ul style="list-style-type: none"> • Open kinetic chain limited to bodyweight leg extensions (weeks 2-6) • No resisted open kinetic chain exercises • Closed kinetic chain strength 0-45° flexion • No running, jumping, cutting, pivoting, or twisting • Avoid painful activities/exercises 	<ul style="list-style-type: none"> • Progress AAROM to pain free AROM • Gait training progressing once adequate quad strength demonstrated • Core stabilization exercises • Closed kinetic chain strengthening within protected range of motion • Global LE strengthening <ul style="list-style-type: none"> ◦ Begin functional strengthening exercises (bridge, mini-squat, step up, etc) ◦ Stationary bike • Optional therapies (if available/as indicated): <ul style="list-style-type: none"> ◦ BFR therapy ◦ Anti-gravity treadmill for walking gait ◦ Aquatic therapy once incision is healed and cleared by surgeon (2-4 weeks) ◦ NMES • Week 6: FOTO, LEFS
Weeks 6 – 12	<ul style="list-style-type: none"> • Full, symmetric and pain-free ROM without assistive device • Progress quadriceps strength/endurance • Increase functional activities • Total leg strength 	<ul style="list-style-type: none"> • Progress from assistive device as able • May initiate resisted open kinetic chain exercise <ul style="list-style-type: none"> ◦ 90-45° at 6 weeks ◦ 90-30° at 8 weeks ◦ 90-0° at 10 weeks ◦ 90-0° with progressive loading at 12 weeks • No running, jumping, cutting, pivoting, or twisting • Avoid painful activities/exercises • Avoid patellofemoral pain 	<ul style="list-style-type: none"> • End range flexion and extension • Aerobic training on stationary bike, elliptical, stair climber, UBE • Core stabilization exercises • Progressive double and single limb strengthening • Double limb to single limb balance/proprioception • Aerobic training: <ul style="list-style-type: none"> ◦ Walking program when walking with normal gait mechanics • Single to multi-plane exercise • Progression of balance/proprioception • Modalities as indicated • Week 12: FOTO, LEFS, PSFS

This protocol is not meant to be prescriptive but a recommendation to guide the rehabilitation process.

Each patient's progress may vary based on specifics of their injury and procedure.





Weeks 12 – 16	<ul style="list-style-type: none">• Full, symmetric ROM• No effusion with increased activity• Increase intensity and duration of functional LE strength• Initiate return to jogging program• Begin low level plyometric and agility training	<ul style="list-style-type: none">• Avoid painful activities/exercises• Jogging program initiated at 12 weeks if cleared by surgeon AND<ul style="list-style-type: none">○ No effusion○ Full AROM○ > 80 % LSI• No jogging on a painful or swollen knee• Lateral support/buttress brace per MD or patient preference	<ul style="list-style-type: none">• Increase loading capacity for lower extremity strengthening exercises• Continue balance/proprioceptive training• Week 12: begin return to jogging program<ul style="list-style-type: none">○ If applicable, start with pool/anti-gravity treadmill• Begin low level plyometric and agility training at 12 weeks• 3-4 month follow up with MD (SGYM)
Weeks 16 – 24 Month 4 – 6	<ul style="list-style-type: none">• Continue to progress functional strengthening• Successful progression of the return to running program• Initiate higher level plyometric and agility training	<ul style="list-style-type: none">• No jogging/running on a painful or swollen knee• Avoid painful activities/exercises• Avoid patellofemoral pain• No participation in sports unless specified by care team	<ul style="list-style-type: none">• Progression of return to jogging program• Gradually increase lifting loads focusing on form, control, and tissue tolerance• Progress as tolerated<ul style="list-style-type: none">○ Core Stability○ Strength○ Endurance○ Proprioception / Balance• Increase intensity of plyometric and agility training• Foot speed and change of direction• Functional assessment at 6 months per MD• Month 6: FOTO, LEFS, PSFS
Weeks 24 + Month 6+	<ul style="list-style-type: none">• Continue to progress functional strengthening• Sport-specific training• Begin gradual return to sport• Pass return to play criteria	<ul style="list-style-type: none">• No participation in sports unless specified by care team• Avoid painful activities• Gradual return to full participation in sports	<ul style="list-style-type: none">• Progress as tolerated<ul style="list-style-type: none">○ Core Stability○ Strength○ Endurance• Begin sport-specific training<ul style="list-style-type: none">○ Proprioception / Balance○ Plyometric training○ Agility drills○ Sport-specific activities○ Single-to multi-task○ Reactionary drills○ Perturbation training○ Closed to open environment• Gradual return to sport progression Functional assessment as needed per MD• Final visit: FOTO, LEFS, PRO

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