

Medial Patellofemoral Ligament Reconstruction Rehabilitation Protocol

Time	Goals	Precautions/Restrictions	Treatment
Weeks 0 – 2	<ul style="list-style-type: none"> • Protect surgical site • Reduce pain and swelling • Active ROM: 0-90 degree • Full passive extension • Active quadriceps control • Reduce muscle atrophy • Safe use of assistive device 	<ul style="list-style-type: none"> • WBAT with crutches • Avoid knee valgus forces 	<ul style="list-style-type: none"> • ROM (as tolerated) <ul style="list-style-type: none"> ○ PROM – AAROM -AROM • Quadriceps recruitment/NMES • Global LE/hip strengthening • Gait training with crutches • Modalities as indicated <ul style="list-style-type: none"> ○ 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 wks: 0-120 deg ○ 4-6 wks: 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 is limited to bodyweight leg extensions (weeks 2-6) • Closed kinetic chain strength 0-45 degrees flexion • No resisted open kinetic chain exercises • No running, jumping, cutting, pivoting, or twisting • Avoid painful activities/exercises 	<ul style="list-style-type: none"> • AAROM - 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 • Modalities as indicated • Week 6: FOTO, LEFS

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<p>Weeks 6 – 12</p>	<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
<p>Weeks 12-16</p>	<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 <ul style="list-style-type: none"> ○ No effusion ○ Full AROM ○ >80% LSI • No jogging on 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)
<p>Months 4-6</p>	<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

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Months 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, PSFS
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