

ACL RECONSTRUCTION PT PROTOCOL

ACL POST – OPERATIVE PHASE I (WEEKS 0-2)

GOALS:

ROM: Full passive extension (most important)

Minimum of 90° knee flexion

Normalize patella mobility

Weightbearing: Progressive weight bearing to WBAT with crutches

Control post-operative pain / swelling

Prevent quadriceps inhibition

Promote independence in home therapeutic exercise program

PRECAUTIONS:

Avoid active knee extension 40 0°

Avoid ambulation without brace locked @ 0°

Avoid heat application

Avoid prolonged standing/walking

TREATMENT RECOMMENDATIONS:

Towel under heel for knee extension, A/AAROM for knee flexion, patella mobilization, quadriceps re-education (NMES and /or EMG), hip progressive resisted exercises, proprioception training, short crank bike, bilateral leg press (5 – 70°), SL R supine (with brace locked to without brace),

SLR all planes, cryotherapy for pain and edema

Emphasize patient compliance to HEP and weight bearing precautions/progression

MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE:

Able to SLR without quadriceps lag

0° knee extension, minimum of 90° knee flexion

Able to demonstrate unilateral (involved extremity) weight bearing without pain

Emphasize

Patella mobility

Full knee extension

Improving quadriceps contraction

Controlling pain/effusion

POST – OPERATIVE PHASE II (WEEKS 2-6)

GOALS:

ROM 0° - 125°, progressing to full ROM

Good patella mobility

Minimal swelling

Restore normal gait (non-antalgic) without assistive device

Ascend 8" stairs with good control, without pain

Discontinue brace

TREATMENT RECOMMENDATIONS:

Continue phase I exercises as appropriate

WBAT with brace open to tolerance for ROM, may DC as quad strength improves and gait normalizes, typically 5-6 weeks post op

Advance AAROM knee flexion/extension exercises (emphasize full passive extension), hamstring/calf flexibility, standard bike (if ROM 115°), leg press (80 – 0° arc), mini squats, active knee extension to 40°, proprioceptive training, forward step up program, underwater treadmill (incision benign), open brace (0 – 90°) as quadriceps strength improves

Progress/advance patients home exercise program (evaluation based)

PRECAUTIONS:

Avoid descending stairs reciprocally until adequate quadriceps control & lower extremity alignment

Avoid pain with therapeutic exercise & functional activities

MINIMUM CRITERIA FOR ADVANCEMENT:

ROM 0 – 125°

Normal gait pattern

Demonstrate ability to ascend 8” step

Good patella mobility

Functional progression pending functional assessment

POST – OPERATIVE PHASE III (WEEKS 6-14)

GOALS:

Restore Full ROM

Able to descend 8” stairs with good leg control & no pain

Improve ADL endurance

Improve lower extremity flexibility

Protect patellofemoral joint

TREATMENT RECOMMENDATIONS:

Progress squat/leg press program, initiate step down program, advance proprioceptive training, agility exercises, retrograde treadmill ambulation/running, quadriceps stretching
Emphasize patient compliance to both home and gym exercise program

PRECAUTIONS:

Avoid pain with therapeutic exercise & functional activities

Avoid running and sport activity till adequate strength development and MD clearance (typically 14 weeks)

MINIMUM CRITERIA FOR ADVANCEMENT:

ROM to WNL

Ability to descend 8" stairs with good leg control without pain

Functional progression pending functional assessment

Emphasize

Improving quadriceps strength

Eccentric quadriceps control

Emphasize

Normalizing knee ROM and patella mobility

Minimizing knee effusion

Normal gait pattern

POST – OPERATIVE PHASE IV (WEEKS 14-22)**GOALS:**

Demonstrate ability to run pain free

Maximize strength and flexibility to meet demands of ADLS

Hop Test > 75% limb symmetry

TREATMENT RECOMMENDATIONS:

Start forward running (treadmill) program when 8" step down satisfactory

Advance agility program / sport specific

Start plyometric program when strength base sufficient

PRECAUTIONS:

Avoid pain with therapeutic exercise & functional activities

Avoid sport activity till adequate strength development and MD clearance

CRITERIA FOR ADVANCEMENT:

Symptom-free running

Hop Test > 75% limb symmetry

Functional progression pending & functional assessment

POST – OPERATIVE PHASE V RETURN TO SPORT (WEEKS 22 - ?)**GOALS:**

Lack of apprehension with sport specific movements

Maximize strength and flexibility to meet demands of individual's sport activity

Hop Test > 85% limb symmetry

TREATMENT RECOMMENDATIONS:

Continue to advance LE strengthening, flexibility & agility programs

Advance plyometric program

PRECAUTIONS:

Avoid pain with therapeutic exercise & functional activities

Avoid sport activity till adequate strength development and MD clearance

CRITERIA FOR DISCHARGE:

Hop Test > 85% limb symmetry

Lack of apprehension with sport specific movements

Flexibility to accepted levels of sport performance

Independence with gym program for maintenance and progression of therapeutic exercise program at discharge