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**Fellowship Trained in Sports Medicine**  
**ACL Reconstruction with Autograft**

General Guidelines

- Full PROM immediately but do not force flexion
- Ensure you achieve full extension
- Full patellofemoral mobility all planes
- Reestablish proper motor control patterns especially with single leg closed chain movements and single leg plyometric/agility movements. Stress proximal control at hip and distal control at subtalar joint. If subtalar joint cannot be controlled (eversion collapse) consider orthotics
- Hamstring autografts avoid concentric knee flexion exercises for 8 weeks
- Full patellar tendon mobility once incision is closed (for patellar tendon autografts)
- Avoid deep squatting for 6 months
- Avoiding twisting on a planted foot for 6 months
- No open chain knee extension for 6 months

Phase I -- Weeks 0-8

- TDWB x 3 weeks, Then PWB (50%) for 4-6 weeks (**Brace locked in full extension for gait**)
  - **IF MENISCUS REPAIRED THEN**
    - Weeks 0-3: TDWB, Brace locked full extension (Permit AROM 0-90)
    - Weeks 4-6: PWB 50%, Brace locked full extension (Permit AROM 0-Full)
- Re-establish ROM with heel slides, ham/calf stretching, gravity assisted stretching
- Start cycling program once flexion ROM is 110 deg or >
- Start aqua jogging once incisions are closed
- Quad setting with biofeedback if needed to reestablished quad set
- Quad setting with directional SLRs (flexion/abduction/extension)
- Ankle theraband exercise
- Core exercises at 6 weeks (planks/sideplanks 10 x each for time)
- At 4 weeks start swiss ball bridging 30 x 10-20 second holds
- At 6 weeks start gentle prone quad stretching with strap
- At 8 weeks start single leg machine press from 30-90 deg 4 x 10

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## Phase II – Weeks 8-12

- Normalize gait pattern
- Initiate body weight squats
- Initiate hip thrusts
- Initiate balance program (start on ground and progress to unstable surfaces/eyes closed) Start single leg bridges 30 x 10 seconds
- Start eccentrics with single leg machine press 40 x 10 second duration with weight lowering (continue 30-90 deg)
- At 10 weeks start step-downs (reverse with eccentric control) 4 x 10 (small step height: 4-6 inches)
- At 10 weeks add hypers with glute emphasis
- At 10 weeks start SL hip thrusts
- Continue with cycling and aqua jogging program
  - Continue with SLRs as needed
- Continue stretching until completely symmetric ROM

## Phase III- Weeks 12-20

- Continue with phase II activities
- Start single leg closed chain exercise 4 x 10 each (ie single leg squats with forward reaches, single leg RDLs, single leg squats with rear-leg elevated, step-downs reverse, split-squats).
- Add loads progressively (ie hold weight plate, med ball, or wear weighted vest).
- Progress posterior chain exercises
- Start dynamic warm-up drills at 12 weeks
- Start dynamic lunges (forward, reverse, walking) at 16 weeks. Add loads progressively If pressing strength is at 80% or greater of unaffected leg (test with 10 rep max) then begin running program at 16 weeks.
- Begin with interval jogging on treadmill with feedback to normalize pattern
- Progress to treadmill jogging
- Move outdoors to running on track
- Continue with core training progressively (add WB core exercises)

## Phase IV — Weeks 20 to return to sport

- Start agility training at 20 weeks
- Start double leg plyos at 20 weeks (begin with broad jumps — take-off and landing must be fully symmetric to progress jump training). Progress to single leg plyos when double leg plyos are symmetric (at 22-24 weeks)
- Initiate sprinting and return to sport drills at 24 weeks
- Pass functional/strength testing and return to sport at 24 weeks or when released by MD
- Pressing strength at 90% or greater
- Symmetric with single leg unsupported squat
- No faulty movement patterns
- Triple hop test at 85% or greater with symmetric movement quality
- KT-1000 test within 2.5mm

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