# ACL Reconstruction with Autograft

**Phase 1: Maximum Protection Phase (Weeks 1-4) Goals:** Control inflammation/effusion

Allow early healing

Full passive knee extension Gradually increase knee flexion Independent quad control

Stage 1: Immediate post-surgery days 1-7

* Ice, compression, elevation.
* ROM (Passive 0-90)
* Patellar mobilization
* Strengthening exercise:
  + Quad Sets
  + SLR flexion
  + Hip Abd/Adduction
* Weight Bearing: 50% to WBAT with 2 crutches
* Avoid terminal knee extension

Stage 2: Weeks 2-4

* Continue use of ice and compression
* ROM Guidelines
  + Gradually increase PROM
  + Week 2: 0-105 degrees
  + Week 3: 0-125 degrees
  + Week 4: 0-135 degrees
* Weight bearing guidelines- Week 2-3: Full weight bearing
* Strengthening Exercises: Begin Phase I Exercises
  + SLR (all 4 planes)
  + Heel Slides
* Bicycle (once ROM appropriate)

\*Avoid twisting, deep squatting, stooping

# Phase 2: Moderate Protection Phase (4-7 weeks) Goals: Full PROM

No Swelling/inflammation Proper gait pattern

* Continue ROM and stretching to progress 0-140 Degrees
* Continue strengthening exercises Phase I
* Begin Level Two agility
  + Cup walking
  + Planks
  + Bridging
  + Steamboats 4 way (involved leg down)
  + Ball roll: for, side and back (involved leg down)
  + Heel raises

* Light strengthening: Short range leg press, 4-Way hip, leg extension 90-45, Dead lifts
* Bicycle (as ROM permits)
* Pool Program

\*Avoid twisting, pivoting, running and deep squatting

**Phase 3: Controlled Activity Phase (7-9 weeks) Goals:** Improve strength and endurance

Maintain Full ROM

Week 7-9

* Progress to Phase II Strengthening
* Initiate Dynamic warm-up
* Initiate Form Stepping (progress from walk pace to fast step pace)
* Initiate elliptical
* Toe calf raises
* Progress balance training
* Progress to isotonic strengthening program

Week 10 –week 15

* Continue Strengthening and stretching program
* Continue dynamic warm-up
* Form running: progress from fast pace walk to trot to jog pace
* Initiate treadmill for endurance (3.5mph fast walk then progress to light jog at 14 weeks)
* Begin step ups and step downs
* Initiate pool running

**Phase 4: Return to Activity Phase (4-6 month) Goals:** Improve strength and endurance

Prepare for unrestricted activities Exercises

* Continue and progress all strengthening exercises and stretching drills
* Deep squatting permitted at 4 months
* Initiate jumping program Ankle jumps, two-legged hop, two –legged jumps, single leg, etc…
* Initiate straight line running at 4 months
* Initiate pivoting and cutting: 5 months
* Initiate agility training: 5 months
* Gradually return to sport drills: 6 months
* Non contact practice 9 months
* Full competition non contact sports 9 months
* Full competition full contact 12 months