

## **Daniel J. Prohaska, M.D.**

*Advanced Orthopaedic Associates*

2778 N. Webb Rd.  
Wichita, KS 67226

316-631-1600  
Fax: (316) 631-1666  
1 (800) 362-0591



### **ACL Reconstruction with Achilles Tendon Allograft Rehabilitation Protocol**

#### **Stage 1**

Time: 0-2 days – Brace on with knee locked at 0 degrees.

Gait: Weight bearing to tolerance unless otherwise directed by physician.

Exercises:

- quad sets
- leg raises with the knee locked (full extension)
- hamstring sets (gentle)
- ankle pumps

Goal of stage one: Promote hemostasis, pain management, and regain good motor control of involved.

#### **Stage 2**

Time: 2 days – 3 weeks. ROM is started, if functional bracing is used then open brace to 60 degrees at day 2 and progressively open the brace as tolerated without increased swelling or pain. Wear brace at all times.

Gait: Partial weight bearing, increasing to full weight bearing as tolerated by the patient. The goal is to be full weight bearing by 14 days post-op. Progress to weight bearing with one crutch prior to ambulating without the crutches. Patient may ambulate without crutches when they can walk with a minimal to no limp.

Exercises:

- Active quad sets
- Passive and active knee extension to 0 degrees (no external resistance).
- Active knee flexion only
- Resisted hip extension, abduction, and adduction exercises
- Hamstring, calf, and iliotibial band stretches as indicated
- Patellar mobilization
- Closed chain activities
  - Standing terminal extension with theraband
  - Ball squeezes (hip adduction and knee extension)
  - Long sitting leg press
- May begin bicycling with high seat - low resistance for ROM only

Start electrical stimulation for muscle reeducation at 3 days post-op if quad tone is poor.

Goal: Ambulate with assistive devices, knee ROM 0-120, good isolated quad contraction.

### **Stage 3**

Time: 3-6 weeks

Gait: Full weight bearing without crutches as soon as they can ambulate with a minimal limp.

Exercises:

- Continue with exercises

- Start step ups, both forward and lateral, beginning with a 2" step increasing to 8"

- May start hip sled, leg press

- BAPS board/KAT

- Continue with closed chain activities

- May start hamstring PRE if no hamstring or pes anserinus pain

- Continue with bicycling, but begin cross training activities such as Nordic track, stair stepper, and EFX.

- If stork stance can be held for longer than 20 seconds, begin proprioceptive activities on a mini trampoline

- May begin aquatic exercises including walking/coordination activities.

Goals: By 6-8 weeks

- Full ROM including hyperextension equal to uninjured extremity

- Good eccentric quad control off 6" step

- Ascend or descend stairs without pain or compensation

Once the patient has met all previous goals and can perform

- Squat and touch

- Ice skater (stick and hold)

- ½ single leg squat

Then the patient will start a functional ACL program.

### **Functional ACL 8-12 weeks**

- Proprioceptive exercises

- Bilateral progressing to unilateral

- Squat and touch

- Agility ladder

- 1", 2", 2" lateral, ali shuffle, slalom, 2" slalom

- Dot drill

- hopscotch, forward and backward

- Ice skater

- Hold for a count of two

- Strength

- Single leg squat

## Pitcher squat

### Leg circuit I

- squats
- lunges
- low step ups
- squat jump (depending on strength)

### Leg circuit II

- squats or stagger squats
- 360 lunges
- high step up
- ice skater
- progress to external wt as needed
- progress to eccentric lunges

### movement drills

- serpentine
- wheel drill
- extended wheel drill
- 5-10-5 drills
- zig zag drill

### Goals:

- Run without compensation or pain
- To land a jump on both feet without compensation
- 70 to 80% quad strength as compared to uninvolved side
- Complete to let circuits
- Perform movement drills without noticeable difference right to left