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