

שיקום לאחר תיקון פתוח של גיד אכילס

PHASE I: IMMEDIATE POST-OP (0-2 WEEKS AFTER SURGERY)

Rehabilitation Goals:

- Protect repair
- Minimize muscle atrophy in the quads, hamstrings, and glutes

Weight Bearing:

Walking

- Non-weight bearing on crutches
- When climbing stairs, make sure you are leading with the non-surgical side when going up the stairs, make sure you are leading with the crutches and surgical side when going down the stairs

Intervention:

Range of motion/Mobility

- Supine passive hamstring stretch

Strengthening

- Quad sets
- NMES high intensity (2500 Hz, 75 bursts) supine knee extended 10 sec/50 sec, 10 contractions, 2x/wk during sessions—use of clinical stimulator during session, consider home units distributed immediate post op
- Straight leg raise

**Do not perform straight leg raise if you have a knee extension lag (with brace/cast removed)

- Hip abduction
- Prone hamstring curls

Criteria to Progress

- Pain < 5/10



PHASE II: INTERMEDIATE POST-OP (3-6 WEEKS AFTER SURGERY)

Rehabilitation Goals

- Continue to protect repair
- Avoid over-elongation of the Achilles
- Reduce pain, minimize swelling
- Improve scar mobility
- Restore ankle plantar flexion, inversion, and eversion
- Dorsiflexion to neutral

Weight Bearing

Walking

- Partial-weight bearing on crutches in a boot
- Gradually wean heel lift: start with 3-4 wedges, removing one per week

Additional Intervention

- *Continue with Phase I Interventions

Range of motion/Mobility

- PROM/AAROM/AROM: ankle dorsiflexion**, plantar flexion, inversion, eversion, ankle circles

**do not dorsiflex ankle beyond neutral/0 degrees

Cardio

- Upper body ergometer

Strengthening

- Lumbopelvic strengthening: side lying hip external rotation-clamshell, plank

Balance/proprioception

- Joint position re-training

Criteria to Progress

- Pain < 3/10
- Minimal swelling
- Full ROM PF, eversion, inversion
- DF to neutral



PHASE III: LATE POST-OP (7-8 WEEKS AFTER SURGERY)

Rehabilitation Goals

- Continue to protect repair
- Avoid over-elongation of the Achilles
- Normalize gait
- Restore full range of motion
- Safely progress strengthening
- Promote proper movement patterns
- Avoid post exercise pain/swelling

Weight Bearing

- Weight bearing as tolerated in boot without lift

Additional Intervention (*Continue with Phase I-II Interventions)

Range of motion/Mobility

- Gentle long-sitting gastroc stretch as indicated
- Gentle stretching all muscle groups: prone quad stretch, standing quad stretch, kneeling hip flexor stretch
- Ankle/foot mobilizations (talocrural, subtalar, and midfoot) as indicated

Cardio

- Stationary bicycle, flutter kick swimming/pool jogging (with full healing of incision)

Strengthening

- 4 way ankle
- Short foot
- Lumbopelvic strengthening: bridges on physioball, bridge on physioball with roll-in, bridge on physioball alternating
- Gym equipment: hip abductor and adductor machine, hip extension machine, roman chair
- Progress intensity (strength) and duration (endurance) of exercises

Balance/proprioception

- Double limb standing balance utilizing uneven surface (wobble board)
- Single limb balance progress to uneven surface including perturbation training



Criteria to Progress

- No swelling/pain after exercise
- Normal gait in a standard shoe
- ROM equal to contra lateral side
- Joint position sense symmetrical (<5 degree margin of error)

PHASE IV: TRANSITIONAL (9-12 WEEKS AFTER SURGERY)

Rehabilitation Goals

- Maintain full ROM
- Normalize gait
- Avoid over-elongation of the Achilles
- Safely progress strengthening
- Promote proper movement patterns
- Avoid post exercise pain/swelling

Weight Bearing

- Weight bearing as tolerated

Additional Intervention (*Continue with Phase I-III interventions)

Range of motion/Mobility

- Gentle standing gastroc stretch and soleus stretch as indicated

Strengthening

- Calf raises concentric
- Knee Exercises for additional exercises and descriptions
- Gym equipment: seated hamstring curl machine and hamstring curl machine, leg press machine
- Romanian deadlift

Criteria to Progress

- No swelling/pain after exercise
- Full ROM during concentric calf raise
- Normal gait



PHASE V: ADVANCED POST-OP (3-5 MONTHS AFTER SURGERY)

Rehabilitation Goals

- Safely progress strengthening
- Promote proper movement patterns
- Avoid post exercise pain/swelling

Additional Intervention (*Continue with Phase II-IV interventions)

Cardio

- Elliptical, stair climber

Range of motion/Mobility

- Standing gastroc stretch and soleus stretch as indicated

Strengthening

- Calf raises eccentric
- Seated calf machine

**The following exercises to focus on proper control with emphasis on good proximal stability

- Squat to chair
- Hip hike
- Lateral lunges
- Single leg progression: partial weight bearing single leg press, slide board lunges: retro and lateral, step ups and step ups with march, lateral step-ups, step downs, single leg squats, single leg wall slides

Criteria to Progress

- No swelling/pain after exercise
- Standing Heel Rise test
- No swelling/pain with 30 minutes of fast pace walking
- Achilles Tendon Rupture Score (ATRS)
- Psych Readiness to Return to Sport (PRRS)



PHASE VI: EARLY to UNRESTRICTED RETURN TO SPORT (6+ MONTHS AFTER SURGERY)

Rehabilitation Goals

- Continue strengthening and proprioceptive exercises
- Safely initiate sport specific training program
- Symmetrical performance with sport specific drills
- Safely progress to full sport

Additional Intervention (*Continue with Phase II-V interventions)

- Interval running program
- Return to Running Program
- Agility and Plyometric Program

Criteria to Progress

- Clearance from MD and ALL milestone criteria below have been met
- Completion jog/run program without pain/swelling
- Functional Assessment
 - Standing Heel Rise test
 - $\geq 90\%$ compared to contra lateral side

