

Achilles Tendon Tear (Nonoperative) – PT Protocol

Dr. Kyle Flikkema

DIAGNOSIS: ACHILLES TEAR- NON-OPERATIVE

PHASE 1 (0-1 WEEKS)

GOALS:

Pain and edema control
Protect from accidental injury
Minimize gluteus, quadriceps and hamstring atrophy
Learn to manage proper weight bearing with an assistive device

CAM boot with 3 heel wedges

- Wear boot while sleeping
- Allowed to remove boot for washing and airing the foot. When boot is removed, no weight bearing or dorsiflexion of foot is allowed. This may cause damage to the healing tendon.
- CAM boot should be worn when sleeping

Weight bearing

- Non-weight bearing in CAM boot with crutches

EXERCISES/RESTRICTIONS:

Elevation
Strengthening: Quad sets, Hamstring stretching, Straight leg raise, Hip abduction exercises
Gait training

PHASE 2 (2-4 WEEKS)

GOALS:

Pain and edema control
Tissue healing, avoid over elongation of Achilles
Restore ankle plantarflexion

CAM boot with 3 heel wedges (week 2)

- Wear boot while sleeping
- Allowed to remove boot for washing and airing the foot. When boot is removed, no weight bearing or dorsiflexion of foot is allowed. This may cause damage to the healing tendon.
- CAM boot should be worn when sleeping

CAM boot with 2 heel wedges (week 3-4)

- Wear boot while sleeping

- Allowed to remove boot for washing and airing the foot. When boot is removed, no weight bearing or dorsiflexion of foot is allowed. This may cause damage to the healing tendon.
- CAM boot should be worn when sleeping

EXERCISES/RESTRICTIONS:

If in pain, back off activities & weight bearing

Avoid PROM ankle DF past neutral during 2 – 8 week stage

Progressive weight bearing with crutches and walking boot with heel lifts to 40 degrees plantar flexion

- Week 2-3: 25%
- Week 3-4: 50%
- Week 4-5: 75%
- Week 5-6: 100%
- Gait training in boot at 6 weeks.

Upper body ergometer Strengthening

Modalities to control swelling: US, IFC with ice

BFR NMES: calf muscle with strengthening, not past neutral ankle position.

ROM: Active plantar & dorsiflexion ROM exercises to neutral, inversion/eversion below neutral

PHASE 3 (5-6 WEEKS POST INJURY)

GOALS:

Pain and edema control

Tissue healing, avoid over elongation of Achilles

Restore ankle plantarflexion

CAM boot with 1 heel wedges

- Wear boot while sleeping
- Allowed to remove boot for washing and airing the foot. When boot is removed, no weight bearing or dorsiflexion of foot is allowed. This may cause damage to the healing tendon.
- CAM boot should be worn when sleeping

EXERCISES/RESTRICTIONS:

If in pain, back off activities & weight bearing

Avoid PROM ankle DF past neutral during 2 – 8 week stage

Progressive weight bearing with crutches and walking boot with heel lifts to 40 degrees plantar flexion

- Week 2-3: 25%
- Week 3-4: 50%
- Week 4-5: 75%
- Week 5-6: 100%
- Gait training in boot at 6 weeks.

Upper body ergometer Strengthening

Modalities to control swelling: US, IFC with ice

BFR NMES: calf muscle with strengthening, not past neutral ankle position.

ROM: Active plantar & dorsiflexion ROM exercises to neutral, inversion/eversion below neutral

PHASE 4 (7-8 WEEKS POST INJURY)

GOALS:

CAM boot with no heel wedge
Weight bearing – full in boot
Normalize gait in boot without heel wedges, regain full range of motion
Safely progress strengthening
Promote proper movement patterns
Avoid post exercise pain/swelling

EXERCISES/RESTRICTIONS:

Gentle stretching all muscle groups: prone quad stretch, standing quad stretch, kneeling hip flexor stretch
Stationary bike, elliptical & walking on treadmill
Balance board activities with block to prevent DF past neutral
Add gentle calf stretches in standing (not past neutral)
Double-heel raises and progress to single-heel raises (not past neutral)
Educate the patient to wear shoes at all times, even indoors

PHASE 5 (9-12 WEEKS POST INJURY)

GOALS:

Normalize gait and wean boot, regain full range of motion
Safely progress strengthening
Promote proper movement patterns
Avoid post exercise pain/swelling

EXERCISES/RESTRICTIONS:

Full weight bearing as tolerated in boot without heel wedges and wean boot over 2-5 days
Gentle stretching all muscle groups: prone quad stretch, standing quad stretch, kneeling hip flexor stretch
Stationary bike, elliptical & walking on treadmill
Balance board activities with block to prevent DF past neutral
Add gentle calf stretches in standing (not past neutral)
Double-heel raises and progress to single-heel raises (not past neutral)
Begin loaded lunges/squats/step ups, maintaining neutral ankle position as much as possible
Educate the patient to wear shoes at all times, even indoors

PHASE 6 (3-6 MONTHS)

GOALS:

Safely progress strengthening

Promote proper movement patterns
Avoid post exercise pain/swelling
Patient has regained 80 – 100% strength
Able to complete single-leg heel raises
Displays proper gait mechanics
Good movement quality with jumping, hopping, jogging

EXERCISES/RESTRICTIONS:

Avoid lunges, squats and any exercise that places excessive stretch on tendon until 6 months
16+ weeks: Increase dynamic weight-bearing exercises (skipping, jogging & weight training) if they can do 25 single-heel raises
6 – 9 months: Return to normal sporting activities that do not involve contact or sprinting, cutting, jumping if patient has regained 80% strength
12 months: Return to sports that involved running/jumping as directed by medical team if the patient has regained 100% strength.

PHASE 7 (>6 MONTHS)

GOALS:

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

EXERCISES/RESTRICTIONS:

Lunges, progressive strengthening and endurance
Interval running program
Return to Running Program
Agility and Plyometric Program

Treatment: 2 times per week

Duration: 6 months

Evaluate and treat per therapist plan.

Please follow the protocol as directed and call the office with questions or renewals.

Please fax updates to MD