

Achilles Tendon Rupture

Treatment Options:

- **Non-operative Management:** Typically involves wearing a splint, cast or boot and a period of non-weightbearing.
- **Surgical Management:** Involves surgical repair of the tendon followed by times in a splint/boot.

Outcomes:

- Research shows both treatments lead to similar outcomes at **12 months** post-injury.
- **Patient Satisfaction:** At 6 and 12 months, patients report similar levels of symptoms, function, and physical activity regardless of whether they undergo surgery or not.
- Both groups are typically in a boot for approximately 3 months and returning to sport at approximately 12 months

Rehabilitation Phases:

1. Phase 1: Early Rehabilitation

Goal: Control pain and swelling and allow for initial healing.

Treatment is the same for both surgical and non-surgical options.

1. Phase 2: Recovery and Strengthening

Goal: Restore ankle mobility and rebuild strength.

Core and leg strengthening, balance, and agility

Key Considerations:

- Regular **follow-up appointments** with your physician (typically every 2-3 weeks initially) are crucial to monitor progress.
- **Physiotherapy or athletic therapy** is a critical component of rehabilitation.
- When **removing the boot** for showering or washing the lining, keep your foot in **plantarflexion** to avoid stress on the tendon (i.e. Keep your foot pointed and avoid letting heel touch the ground).
- **Exercise** under the guidance of your health care team is encouraged when appropriate.

Phase 1 (0-2 weeks)

Goals

1. Control inflammation and swelling with rest and elevation
2. Gradual increase of activities of daily living while using crutches or scooter

Week 3-4

Goals and Tasks

1. Manage pain and control swelling by using cold therapy and elevation
2. Safe crutch use with full weight bearing in Walking Boot
3. Can remove boot to complete ankle range of motion exercises under direction of health care team
4. Follow Vacoped Boot protocol to adjust range of motion

1. Ankle Eversion

Execution:

- Bend your ankles outward
- Relax your foot back to the start position in a controlled manner



Bend ankles outward

2. Ankle Inversion

Sets: 3 | Reps: 10 | Hold: 5 sec | Rest: 5 sec

Execution:

- Bend your ankles inwards
- Relax your foot back to the start position in a controlled manner



Bend ankles inward

3. Ankle Plantarflexion

Sets: 3 | Reps: 10 | Hold: 5 sec | Rest: 5 sec

Execution:

- Bend your ankles downward



Bend ankles up



Bend ankles down

Week 5

Goals:

1. Discontinue crutches if have not already, attempt to walk heel to toe with boot on
2. Continue Exercises from previous week
3. Add in gentle Dorsiflexion to neutral only as shown below under direction of health care team

1. Ankle Plantarflexion + Dorsiflexion AROM

Sets: 3 | Reps: 10 | Hold: 3-5 sec

Preparation:

- Sit on a bed with your leg straight out in front

Execution:

- Point your toes, bending your ankle as far as you can
- Bring your toes towards your nose, bending your ankle just to neutral (90 deg angle)



Point Toes



Lift Toes

Week 6-7

Goals + Tasks

1. Daily Ankle strengthening with bands under direction of health care team
2. Focus on walking heel to toe in the boot
3. Follow Vacoped Boot protocol to adjust range of motion
4. Week 7 can remove walker bottom from Vacoped boot

1. Ankle Eversion Concentric (Band)

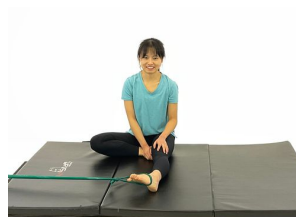
Sets: 3 | Reps: 10

Preparation:

- Sit with your leg straight in front of you
- Attach a band around your top foot pulling from the other side as shown

Execution:

- Bend your foot to the side against the resistance
- Do not move your leg while you are bending your ankle
- Relax your foot back to the start position in a controlled manner



Start position, band around foot



Turn foot outward without rolling your leg

2. Ankle Dorsiflexion Concentric (Band)

Sets: 3 | Reps: 10

Preparation:

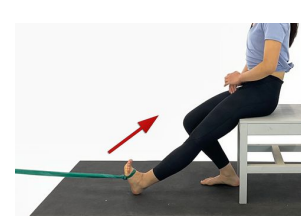
- Sit with your leg straight in front of you

Execution:

- Pull your toes towards your nose, bending at the ankle



Attach band over the top of your foot



Toes to nose

3. Ankle Plantar Flexion Concentric (Band)

Sets: 3 | Reps: 10

Preparation:

- Sit with your leg straight in front of you, elastic band around your foot

Execution:

- Point your toes away from you against the resistance



Start position, band around foot



Point toes against resistance and smile!

4. Ankle Inversion Concentric (Band)

Sets: 3 | Reps: 10

Preparation:

- Sit with your leg straight in front of you
- Attach a band around your top foot pulling from the side as shown

Execution:

- Bend your foot in against the resistance
- Do not move your leg while you are bending your ankle
- Relax your foot back to the start position in a controlled manner



Start position, band around foot



Turn foot inward without rolling your leg

5. Seated Calf Raise

Sets: 3 | Reps: 10-20

Preparation:

- Sit with good posture

Execution:

- Raise heels up
- Lower down with control



Start Position



Raise heels up

6. Cycling Stationary Bike wearing boot, can add tension

Cycling Stationary Bike



Cycling Stationary Bike

Week 8 -12

Goals and Tasks

Week 8: Vaped boot at neutral, walking heel to toe

Week 9-10: Gradually wean out of boot at direction of physician, and practice walking with normal gait

Exercise program daily under direction of health care team

1. Step Up

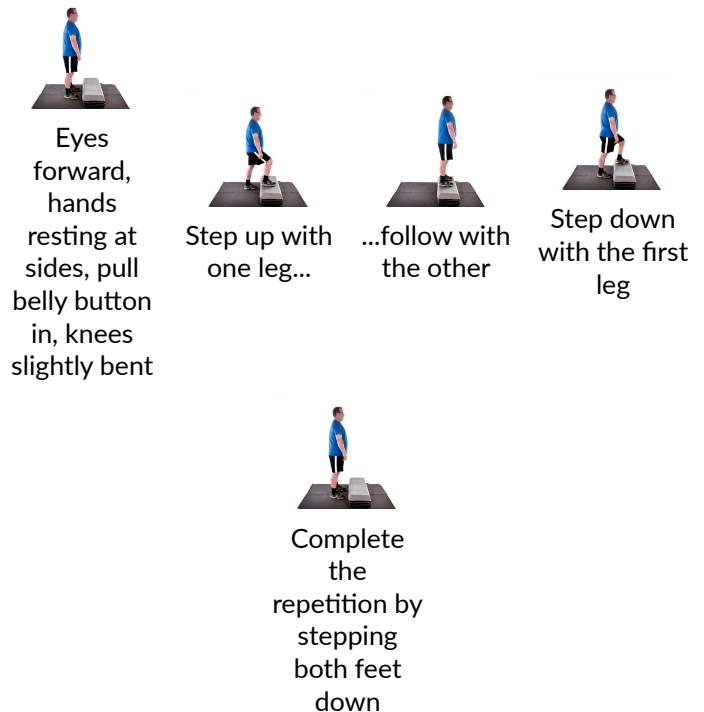
Sets: 3 | Reps: 10

Preparation:

- Stand in front of a box or step
- Hands resting at sides, pull belly button in

Execution:

- Step up with one leg, follow with the other
- Step down with the first leg
- Complete the repetition by stepping both feet down



2. Squat - Arms Forward

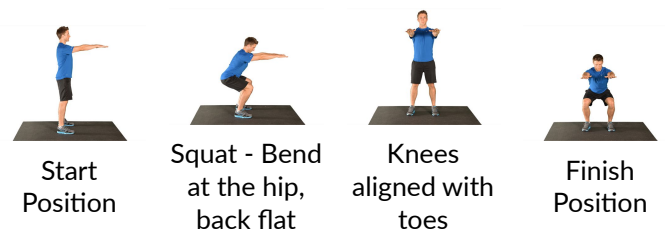
Sets: 3 | Reps: 10

Preparation:

- Stand with good posture, feet shoulder width apart
- Hold arms out in front at shoulder height

Execution:

- Perform a squat by bending at the hip
- Rise up by straightening at the hip



3. Calf Raise Concentric | Bilateral

Sets: 3 | Reps: 10-20

Preparation:

- Stand next to a chair, counter or wall

Execution:

- Stand on your tip toes, lifting your heels as high as you can
- Relax your heels back down to the ground



Start position



Stand on tip toes

4. Balance (Wobble Board)

Sets: 3 | Reps: 3 | Hold: 30sec

Preparation:

- Stand on wobble board

Execution:

- Maintain balance on wobble board
- Avoid touching the edges to the ground as long as possible



Balance on wobble board

5. Single Leg Balance

Sets: 3 | Reps: 3 | Hold: 30

Preparation:

- Stand next to a wall, counter or chair if needed

Execution:

- Stand on one leg



Balance on one leg

6. Cycling Stationary Bike

Cycling Stationary Bike



Cycling Stationary Bike

Final Phase, Sport Readiness

Timelines are different for everyone and be sure to discuss with physician and health care team for direction to continue rehabilitation to ensure safety.

Return to sport from Achilles rupture includes:

- Eccentric Heel drop program
- Proprioception and Balance
- Single leg squats
- Conditioning
- Return to jumping/plyometrics