

Patient Name: Mia Holt

Patient DOB: 1989-10-01

Practitioner Name: admin

Date: 2025-09-02



Summary

This 12-16 week treatment plan is designed for a patient with Achilles tendinitis and a history of tendon rupture and repair. The program is structured in four progressive phases, grounded in evidence-based principles of load management. It begins with pain control using isometrics, manual therapy, and shockwave therapy. It then systematically progresses to heavy slow resistance training to build tendon capacity and strength. The later phases introduce plyometrics and a structured return-to-running program to restore full function. Patient education on pain monitoring and load management is a critical component throughout all phases to ensure a safe recovery and minimize the risk of recurrence. Progression between phases is determined by achieving specific, pain-free milestones rather than fixed timelines.

Phase 1 (Weeks 1-3)

Goals:

- Reduce pain during daily activities to < 4/10 VAS.
- Improve ankle plantarflexion ROM and strength by 10%.
- Educate patient on load management and pain monitoring.
- Initiate pain-free tendon loading.

Summary

This phase focuses on managing pain and inflammation while introducing gentle loads to stimulate tendon healing. The primary tools are isometric exercises, which provide analgesia, and manual therapy to address associated soft tissue and joint restrictions. Shockwave therapy is initiated to modulate pain and stimulate tissue repair.

Milestones

- Pain during walking and stair climbing is consistently ? 3/10 VAS.
- Able to perform single-leg isometric holds for 45 seconds with pain ? 3/10 VAS.
- Morning stiffness is significantly reduced.

Treatment

Manual Therapy:

- Soft tissue release to gastrocnemius and soleus muscles to reduce muscular tension.
- Talocrural and subtalar joint mobilizations to improve ankle dorsiflexion.

Modalities:

- Extracorporeal Shockwave Therapy (ESWT): 1 session per week for 3 weeks. Applied to the point of maximal tenderness on the mid-portion of the Achilles tendon (Mani-Babu et al., 2015).

Therapeutic Exercise:

Isometric Calf Raises: Mid-range holds, 5 repetitions of 45-second holds, 2-minute rest between reps. Perform 2-3 times daily (Rio et al., 2015). Use leg press machine for controlled loading.

Resistance Band Exercises: Ankle inversion, eversion, and dorsiflexion. 3 sets of 15 repetitions.

Core and Hip Strengthening: Glute bridges (2 sets of 15) and planks (3 sets of 30-60 second holds).

Phase 2 (Weeks 4-8)

Goals:

- Achieve pain-free walking and daily activities.
- Improve plantarflexion strength to 4+/5.
- Increase load tolerance of the Achilles tendon without symptom exacerbation.

Summary

The focus shifts from pain management to building tendon strength and capacity using Heavy Slow Resistance (HSR) training. This protocol has been shown to be highly effective for tendon remodeling and improving patient outcomes (Beyer et al., 2015). Manual therapy and adjunct exercises continue.

Milestones

- Able to perform all HSR exercises with acceptable pain (? 3/10 VAS) that settles within 24 hours.
- Full, pain-free active range of motion in the ankle.
- Single-leg calf raise strength is symmetrical to the unaffected side.

Treatment

Manual Therapy:

- Continue as in Phase 1, progressing depth and duration based on tissue response.

Therapeutic Exercise:

Heavy Slow Resistance (HSR) Program (3 times per week):

Seated Calf Raise (on Leg Press): 3 sets of 15 repetitions.

Standing Calf Raise (in Squat Rack or with Dumbbells): 3 sets of 15 repetitions.

Progression: Start with a weight that can be lifted for 15 reps (15RM). Gradually increase weight and decrease to 6-8 reps as strength improves. Each repetition should be performed slowly (e.g., 3 seconds concentric, 3 seconds eccentric) (Beyer et al., 2015).

Compound Strengthening:

Dumbbell/Kettlebell Squats: 3 sets of 10 repetitions.

Dumbbell Lunges: 3 sets of 10 repetitions per side.

Phase 3 (Weeks 9-12)

Goals:

- Develop the tendon's capacity to store and release energy (plyometric function).
- Begin a gradual return to running.
- Achieve 5/5 plantarflexion strength.

Summary

This phase introduces plyometric exercises to prepare the tendon for the high-impact demands of running. The return-to-running program begins, carefully monitored for any adverse reaction. Strength training continues to support the increased functional demands.

Milestones

- Tolerate 15 minutes of plyometric activity without next-day symptom flare-up.
- Successfully complete the first 3 weeks of the return-to-running program.
- No pain with hopping or jumping activities.

Treatment

Therapeutic Exercise:

HSR Program: Continue 2-3 times per week, focusing on increasing load.

Plyometrics (2 times per week):

Box Jumps (low box): 3 sets of 5 repetitions.

Bilateral Hopping in place: 3 sets of 30 seconds.

Single-leg hopping (progress as tolerated): 3 sets of 15 seconds.

Return to Running Program:

- Begin a walk/run program on alternating days.

Week 9: Run 1 min / Walk 4 min. Repeat 5 times (Total: 25 min).

Week 10: Run 2 min / Walk 3 min. Repeat 5 times (Total: 25 min).

Week 11: Run 4 min / Walk 2 min. Repeat 4 times (Total: 24 min).

Week 12: Run 6 min / Walk 2 min. Repeat 3 times (Total: 24 min).

Rule: Pain during or after running must not exceed 3/10 VAS and must resolve before the next session.

Phase 4 (Weeks 13-16+)

Goals:

- Full, pain-free return to running and sport-specific activities.
- Establish a maintenance program to prevent recurrence.
- Patient demonstrates independence in self-management.

Summary

The final phase involves progressing the running program to meet the patient's goals and implementing a long-term prevention strategy. The focus is on maintaining strength and monitoring training load to mitigate the risk of re-injury, especially given the history of tendon rupture.

Milestones

- Able to run for 30 minutes continuously without pain.
- Demonstrates understanding of load management principles for long-term prevention.
- Symmetrical strength and functional performance compared to the uninjured side.

Treatment

Therapeutic Exercise:

Maintenance Strength Program (2 times per week):

- Continue HSR calf raises.
- Continue compound lifts (squats, lunges).
- Continue plyometric drills.

Return to Running Program:

- Gradually increase running duration by no more than 10% per week until the desired distance/time is reached.
- Introduce changes in speed and terrain once a consistent running base is established.

References

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