



CASE STUDY

Plantar Fascia Tear

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INTRODUCTION

25 y/o female Field Hockey with Plantar Fascia tear, sesamoid fx and entrapped nerve. Sport is played on artificial turf, requires constant running and frequent change of direction.

1. Athlete suffered from chronic fasciitis for 6 months. Diagnostic imaging confirmed diagnosis of plantar fascia tear with nerve entrapment
2. Athlete elected to undergo plantar fascia fasciotomy, great toe sesamoid excision and nerve entrapment release

GOALS

- Following surgical correction, incorporate de-weighting into rehabilitation protocol
- Develop a progressive return to activity
- Maintain fitness and function during rehabilitation

HISTORY / PROGRESSION

I. Plan

- Athlete was diagnosed with plantar fasciitis and fx sesamoid
- Upon consultation with treating physician, a complementary conditioning program was developed incorporating the AlterG Anti-Gravity Treadmill®
- Along with traditional medical treatment; modalities, therapeutic exercise, joint mobilization, and NSAID's, the AlterG Anti-Gravity Treadmill® was added to the treatment protocol
- Program duration was for 10 weeks
- AlterG Anti-Gravity Treadmill® was incorporated at week five of rehabilitation once athlete was cleared for unrestricted weight bearing
- Athlete achieved desired competition goals

II. Considerations

- Pain/ soreness levels were considered and used to gauge weight percentage and speed
- Athlete feedback was considered prior to each workout
- Pre and post workout pain was recorded

III. Progression

See table at right.

RESULTS

The athlete was released for return to sport by the treating physician after 15 weeks of rehabilitation. The athlete achieved the goals of the rehabilitation plan, incorporating a progressive sport specific conditioning plan to transition the athlete to full participation. The AlterG Anti-Gravity Treadmill® was incorporated into the athletes rehabilitation plan to maintain fitness, manage gait and progressively increase impact on the extremity. The athlete resumed unrestricted activity 4 weeks after release from rehabilitation and continued using the AlterG Anti-Gravity Treadmill® as part of the conditioning program.

III. Progression (weeks are post-op)

Phase I Week 5-6	Begin weight-bearing
	Range of Motion
	Gait evaluation/ re education
	Neuromuscular activation
	Neuromuscular conditioning
	Pain Management
Proprioception	

Phase II Week 7-9	Early unrestricted ambulation
	Emphasize heel to walk
	Pain free activity
	Proprioception
	Initiate cardiovascular training
	Increase load bearing
	Increase volume
	Increase strike frequency
Increase musculoskeletal strength and endurance	
Decrease incline of surface	

Phase III Week 10-12	Preparation
	Full foot strike
	Increase intrinsic muscular function
	Proprioception/Technique
	Maintain volume
	Increase intensity/ load
	Increase musculoskeletal strength and conditioning
	Increase cardiovascular training
Decrease angle of surface	

Phase IV Week 13-15	Return to activity
	Increase load and intensity
	Challenge Proprioception
	Maintain Volume
	Maintain Conditioning
	Maintain Technique
Maintain angle of surface	

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