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Who: 25 year-old female Field Hockey player with Plantar Fascia Tear, Sesamoid Fracture, and Nerve Entrapment.

What: Patient with chronic plantar fasciitis elected to undergo Plantar Fasciotomy, Great Toe Sesamoid Excision, and Nerve Release.

Why: The Anti-Gravity Treadmill™ enabled the athlete to maintain fitness, manage gait, and progressively increase impact on the extremity post-operatively.

Introduction

25 y/o female Field Hockey with Plantar Fascia tear, sesamoid fracture 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

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 mobilisation, 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.

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.

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.



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
Decrease incline 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