

Handling Hamstrings & Shin Splints

Why Did it Happen?

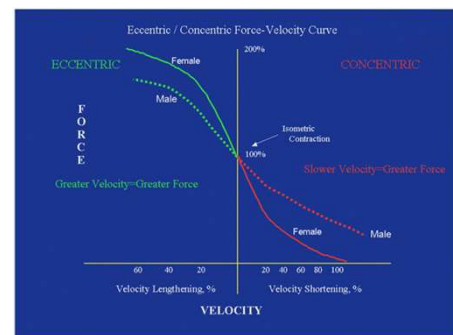
Hamstring Injuries

Finding the Cause of a Hamstring Injury?

- Common Causes
 - Biomechanical Misalignments
 - Poor Acceleration/Sprint Technique
- Common Misconceptions
 - (Bad) Luck was Involved
 - The Hamstring was "Weak"
 - Why Hamstring Strengthening Doesn't Work
 - Hamstring Function
 - Eccentrics and Concentrics
 - Tension Levels

You Have a Hamstring Injury – Now What?

- Two Key Questions
 - What Caused the Injury?
 - What Will We do to Speed Healing and Assist in Recovery?



Biomechanical Misalignments

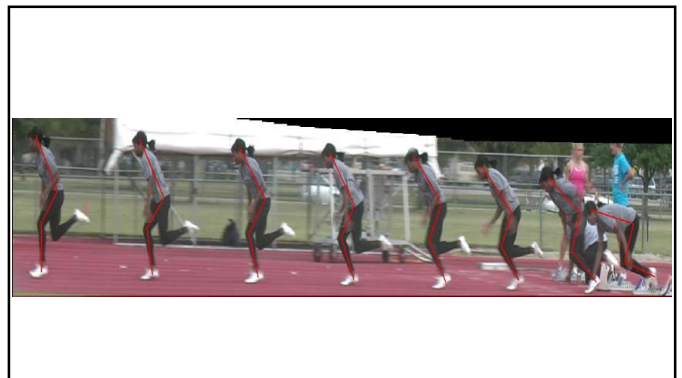
- Anterior Pelvic Tilt
 - Seldom the Only Cause
 - Sometimes a Contributor
 - Due to Tight Hip Flexors and Lumbar Spine
- Problems in the Lower Leg
 - Talus Misplacement
 - Misplaced Head of the Fibula
 - Tightness in the Thoracic Spine

Acceleration / Sprint Mechanic Problems

- Anterior Pelvic Tilt
 - Implicated in 95% of Hamstring Injuries
 - Posture - A Skill, Not a Condition
- The Cause
 - Failure to Properly Progress Body Angles in Acceleration
 - Torso Angle Exceeding the Shin Angle

Solutions – Anterior Pelvic Tilt

- Dynamic Flexibility Training
- Diversity of Training
- Proper Weight Training Technique



Solutions

- Testing
 - The Flip Test
 - Manipulating the Foot
- Solutions
 - Dynamic Flexibility Training
 - Diversity of Training
 - Soft Tissue Work
 - Chiropractic Adjustment

Rehabilitation

Rehabilitation – General Guidelines

- Stay on the Program
- Many Things will be Unaffected - Possibilities
 - Vertical Plyometrics
 - Olympic Lifts from Hang Position
 - Circuit Training

Special Cases

- The Twitching Hamstring
- The Adductor Magnus
- Tendonous Involvement
- Spinal Involvement

Do's and Don'ts

- Avoid
 - Stretching
 - Static Lifting Exercises
 - Manual Therapies Directed at the Injury Site
- Begin
 - Functional Exercise Rehab Program
- Allow
 - Manual Therapies Directed Away from Injury Site (Directed at Root Causes)
 - Any Pain Free Training Previously Done

Shin Splints

Functional Exercise Rehabilitation Program

- Understanding the Healing Process
 - The Blood Supply
 - Understanding Collagen Cycling
- The Buildup Run Program
 - Begin Immediately
 - Done Daily
 - 8-12 Runs of 30-50 Meters
 - Below Pain Threshold
 - Progressively Increase Intensity as Pain Threshold Rises

Shin Splints - Mechanics and Causes

- Mechanics
- Causes
 - Articular Restrictions in the Foot
 - Excessive Pronation Rates
 - Structural Abnormalities in the Foot
 - Force Transmissions to the Shin

Limiting Shin Splints – Modes of Attack

- Lower Leg Strengthening
- Lower Leg Mobility
- Manipulation
- Mechanical Help
- Proper Techniques
- Proper Training Loads
- Inflammation Management

Shin Splints –Strengthening and Prevention Exercises

Simple LLC Exercises

Shin Splints - Prevention

Technical Issues

- Proper Jump Takeoffs
- Proper Running Mechanics
- Proper Stopping
- Arch Supports and Orthotics
- Exercises
 - Special Walks/Exercises
 - Special Jumps
 - Barefoot Work
- Proper Periodization of Intensities
- Cyclical Training

Shin Splints – Interventions

- Pain Management Tools
 - Reestablishing Freedom of Movement
 - Massage
 - Pros/Cons of Heat
 - Pros/Cons of Ice
- Managing Inflammation
 - Drugs
 - Supplements
 - Arnica (Montana)
 - Crystalline Ginger

Shin Splints – Prevention & Strengthening Exercises

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