


**Shin Splints and Hamstring Issues**  
**A Coaches' Perspective**



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**Shin Splints**

- **Anterior Shin Splints**
- **Posterior Shin Splints**
- **Compartmental Syndromes**
- **Stress Fractures**



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**Shin Splints**

- **Issues**
  - **Muscle-Bone Detachment**
  - **Inflammation of the Periosteum**
  - **Stress Reactions**
  - **Stress Fractures**



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### **Shin Splint Management**

- **Diverse Approach to Management**
- **There is No Single Answer!**
- **Understanding Preparation and Rehab Differ**



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### **Approaches to Shin Splint Management**

- **Managing Surfaces**
- **Lower Leg Strength**
- **Lower Leg and Foot Mobility**
- **Biomechanical Correction**
- **Skill Correction**
- **Training Design**
- **Inflammation and Pain Management**



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### **Lower Leg Strength**

- **Developing Impact Resistance**
- **Mild In Place Jumps and Skips**
- **15-30 Second Workouts**
- **15-30 Second Rest Intervals**
- **8-12 Total Sets**
- **Shoes vs. Barefoot**
- **Changing Surfaces – Sand, Grass, Court, Track**



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**LLC Exercises**

**Lower Leg Strengthening Exercises**



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**Lower Leg and Foot Mobility**

- **The Foot in Function**
  - **Force Applicator**
  - **Shock Absorber**
- **Approaches**
  - **Prescriptive Exercises**
  - **Physical Manipulation**



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**Lower Leg and Foot Mobility**

- **Prescriptive Exercises**
  - **Barefoot Work**
  - **Balancing Exercises**
  - **Walking Alterations**



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**Prescriptive Exercises**

**Lower Leg Strengthening Exercises**



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**Prescriptive Exercises**

**Lower Leg Strengthening Exercises**



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**Prescriptive Exercises**

- **Others**
  - **Barefoot Hurdle Mobility**
  - **Toe/Towel and Rotation Walks**
  - **Side-Foot/Heel/Toe Walks**



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### Physical Manipulation

- **Massage and Manipulation**
  - **Away From the Injury Site**
  - **At the Injury Site**
- **Cautions**



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### Biomechanical Correction

- **Controlling Pronation and Impact**
- **Chronic Foot Issues**
- **Arch Support Possibilities**
- **Orthotic Possibilities**



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### Skill Correction

- **Common Causes**
  - **Poor or Unbalanced Strength Levels**
  - **Poor Running Mechanics**
    - **Excessive Backside**
    - **Late Grounding / Plantar Flexion**
  - **Toe-First Jump Penultimate Steps and Takeoffs**
  - **Improper Stopping**



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## Training Design

- **Frontloading Plyometric Training**
- **Undulating Training Loads – A Must**
- **The Value of Rest**



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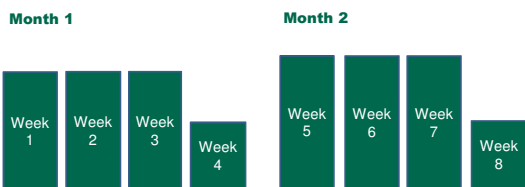
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## Applying Adaptation Timeframes in Training Design



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## Inflammation Management

- **NSAIDs**
  - **Pros**
  - **Cons**
- **Holistic Solutions**
  - **Arnica**
  - **Crystalline Ginger**
- **Cautions**



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### Shin Splint Prevention

- **Strengthening vs. Impact**
- **Maintaining Mobility and Flexibility**
- **Hards and Easys in Training**
- **Skill Teaching and Correction**



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### You Have Shin Splints – Now What?

- **Avoid Preventative Routines**
- **Restoring Mobility**
- **Inflammation and Pain Management**
- **Addressing Biomechanical Issues**
- **Rest is the Key**



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### Handling Hamstrings

A Guide for the Coach



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### You Have a Hamstring Injury – Now What?

- **Diagnose and Assess the Injury**
- **Diagnose and Assess the Injury Cause**
- **Immediate Treatment**
- **Continue Training**
- **Functional Rehabilitation**



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### What's Available

- **Injury Causes**
- **Hamstrings – Decelerators**
- **High - Medium – Low?**
- **The Grabbing Hamstring**
- **Adductor Magnus - The Hamstring Imposter**



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### Causes - Gait Biomechanics

- **Anterior Pelvic Tilt**
  - **Mechanics**
    - **Lumbar Tightness**
    - **Hip Flexor Tightness**
  - **Achieving Proper Posture in Acceleration**
  - **Predisposition Myths**
  - **It's a Skill , Not a Condition**
  - **Overtraining Issues**
    - **Oversquatting**
    - **Rounded Backs - Contrasting Training**



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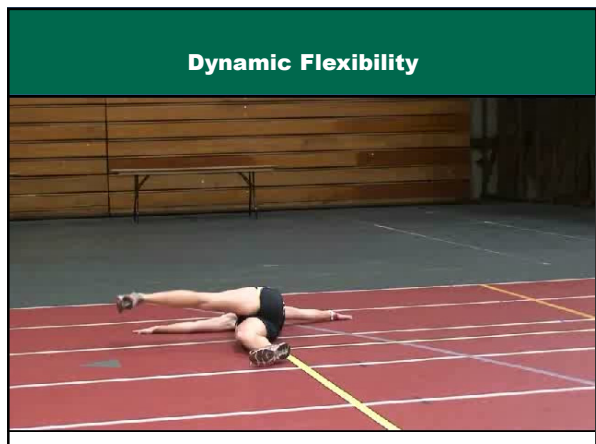
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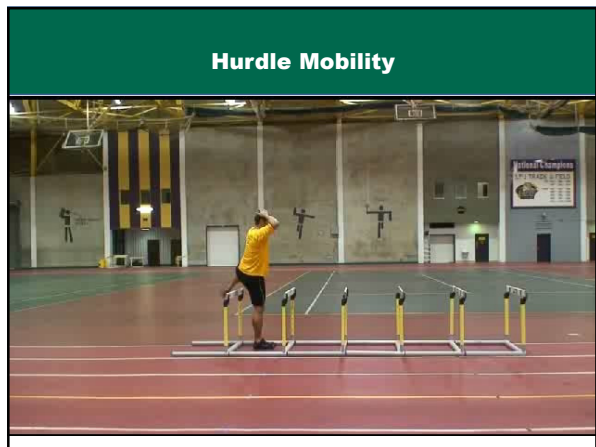
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**Causes - Gait Biomechanics**

- **The Foot and Ankle**
  - **The Talus**
  - **The Navicular Bone**
  - **The Head of the Fibula**
- **Diminished Dorsiflexion**
  - **The Flip Test**
  - **Mechanics of the Injury**
- **Solutions**
  - **Ankle Mobility**
  - **Possible Adjustment**



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**Causes - Gait Biomechanics**

- **Weakness - Never!**
- **Altered Neurology and Biomechanical Disadvantages**
- **Strength Misconceptions**



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**Continued Training**

- **Stay in the Plan, but Pain Free**
- **Exercise Alterations**
- **When Healed....**
  - **Reteaching**
  - **Improved Acceleration Patterns**
  - **Risk Mitigation - Distance Choices in Run Training**
  - **Avoiding Excessive Running and Bilateral Work**



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### Functional Rehabilitation Guidelines

- Pain Free
- No Stretching at the Injury Site
- Stretching Surrounding Areas
- Functional Movement Based Rehabilitation



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### Understanding Eccentric Rehabilitation

- Concentric and Eccentric Work
  - Training
  - Competition



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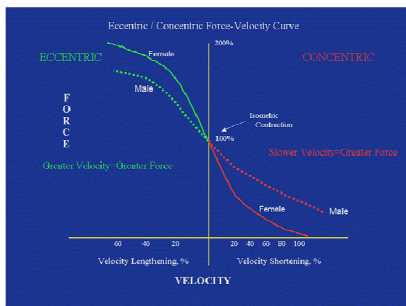
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### Understanding Eccentric Rehabilitation



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### Functional Rehabilitation Guidelines

- **Progressions**
  - **Concentric to Eccentric**
  - **Slow to Fast**
- **Exercise Sequence**
  - 1. Walking**
  - 2. Easy Jogging**
  - 3. Jogging**
  - 4. Running**
  - 5. Straight Leg Bounds**
  - 6. Sprinting**



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**SPORTS MEDICINE CENTER**  
OF THIBODAUX REGIONAL

**[bschex@sacspeed.com](mailto:bschex@sacspeed.com)**

**[www.sacspeed.com](http://www.sacspeed.com)**

**[@booschex](#)**

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