

Running Injuries

Treatment Strategies for Pain Management
and Return to Sport

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Objectives

- Identify symptoms of common running injuries and possible causes
- Appreciate the value of proper footwear in injury prevention
- Understand treatment strategies for home
- Identify when you need to see a professional

Plantar Fasciitis

Symptoms

- Sharp, stabbing pain in the bottom of your foot near the heel.
- Pain is worst in the morning
- Pain with the first few steps out of bed
- Pain with first steps after sitting for a long period of time

Possible Causes

- Poor foot mechanics
- Improper footwear
- Quick increase in mileage
- Uneven terrain
 - Grass
 - Hard pavement
- Calf Tightness
 - Gastrocnemius (knee straight)
 - Soleus (knee bent)
- Hamstring Tightness

Plantar Fasciitis

Treatment

- Stretches
 - Calves, hamstrings
- Ice after run
 - frozen water bottle
 - Dixie cup
- Massage before you run
 - tennis ball/can of soup
- New shoes
 - Or inserts for shoes
- Cross train for offloading

Exercises

- See Handout

Shin Splints

(Medial Tibial Stress Syndrome)

Symptoms

- Tenderness, soreness or pain along the inner part of your lower leg
- Mild swelling in your lower leg
- Pain in shin area that worsens with increased distance
- Possible "foot slap"

Possible Causes

- Poor foot mechanics
- Improper footwear
- Tight muscles
 - Gastrocnemius/Soleus (Calf)
 - Hamstrings
- Muscular weakness of anterior tibialis muscles
- Rapid increase in mileage
- Uneven terrain, uphill running

Shin Splints

(Medial Tibial Stress Syndrome)

Treatment

- Stretches
- Proper footwear/Inserts for shoes
- Ice after running
- Decrease mileage and supplement with cross training
- Heel/Toe walking

Exercises

- See Handout

Runner's Knee

(Patellofemoral Pain Syndrome)

Symptoms

- Aching pain around the knee cap
- Aching on the outside of the knee cap
- Pain on the front or lower aspect of knee cap
- Pain in knee within increase in mileage

Possible Causes

- Poor foot mechanics
- Improper footwear
- Poor flexibility
 - Hip flexors (psoas/quadriceps)
 - Hamstrings
 - Piriformis
- Muscle weakness
 - Hip abductors/extensors
- Ankle stability
 - History of ankle sprain
- Altered patellar tracking

Runner's Knee

(Patellofemoral Pain Syndrome)

Treatment

- Strengthen Hip Abductors
- Strengthen Hip Extensors
- Ankle Stability Exercises
- Ice area as needed after run
- Patellofemoral taping with kinesiotape

Exercises

- See Handout

Iliotibial Band Syndrome

Symptoms

- Pain on the outside of the knee and slightly below
- Hip pain combined with knee discomfort
- Snapping or popping in the knee
- Pain along Iliotibial band

Possible Causes

- Poor foot mechanics
- Improper footwear
- Poor flexibility
 - Hip flexors (psoas/quadriceps)
 - Hamstrings
 - Piriformis
- Muscle weakness
 - Hip abductors/extensors
- Ankle Stability
 - History of ankle sprain

Iliotibial Band Syndrome

Treatment

- Strengthen Hip Abductors
- Strengthen Hip Extensors
- Ankle Stability Exercises
- Ice area as needed after run
- Use tennis ball, foam roller, and/or athletic massage stick to massage area prior to and/or following running.

Exercises

- See Handout.

Conclusion

- Appropriate footwear supports proper running mechanics of the foot, knee, and hip.
- Strategies and exercises for home provided in this presentation are basic and can assist with pain relief.
- When exercises, taping, massaging, and icing do not decrease pain, see an orthopedic MD and ask for referral to physical therapy.