

## ***Running Away From Injuries***

The cool, crisp fall weather inspires people of all ages, sizes, and skill levels to lace up their sneakers and head outside for a nice refreshing run, walk, or jog. With increased running can come many injuries. These injuries can be reduced or even prevented through proper warm-up, training, apparel, footwear selection, running surface and environment.

### **Some Common Running Injuries Include:**

#### **Achilles Tendonitis/Tendinosis/Tears**

Achilles tendonitis develops due to inflammation, strain, or repetitive trauma to the Achilles tendon. If this is left untreated it can develop into Achilles tendinosis, due to degenerative change in the tendon from microtrauma. Achilles tendon tears range from very small to complete tears of the tendon.

**Signs & Symptoms:** Dull and sharp pain along the Achilles, decreased ankle ROM, redness/heat at the achilles tendon, pain with hill running.

#### **Factors contributing to Achilles tendon injuries in runners:**

- Sudden increase in frequency, intensity, and/or duration of training
- Excessive / repetitive hill running (which is stressful to calf muscles and the achilles tendon)
- Sneaker sole is too stiff which increases tension on the achilles tendon, and calf muscles work harder to lift the heel off the ground
- Alignment factors: varus with functional pronation / valgus, pes cavus foot
- Tight muscles (Especially the hamstrings and gastrocnemius)

#### **Illiotalband Friction Syndrome**

An inflammatory response develops between the Illiotibial band (ITB) and the lateral femoral condyle with repetitive flexion and extension of the knee. ITB friction syndrome is the most common cause of lateral knee pain in runners.

**Signs & Symptoms:** Pain and palpable tenderness over the lateral femoral condyle, about 2cm above the joint line during exercise, increased pain with downhill running.

#### **Factors contributing to ITB Syndrome in runners:**

- Cavus Feet/ Increased pronation
- Genu varum
- Downhill running
- Weak Gluteus medius muscles
- Running on a "crowned" or slanted surface
- Circular track running
- Leg length discrepancy
- Changes in training
- Hard running shoes/ Hard running surfaces
- Tight muscles

#### **Heel Pain / Plantar Fasciitis**

Plantar fasciitis is the most common heel problem caused by a partial tearing of the plantar fascia. (Recent studies show that in many cases of plantar fasciitis there really is no inflammation, but rather avascularity).

**Signs & Symptoms:** Increased pain in the morning and after periods of inactivity (sitting) in the heel/ subcalcaneal area, increased pain at the beginning of runs, and increased pain especially with toe off when walking.

#### **Factors contributing to Heel pain/ Plantar Fasciitis in runners:**

- Increased pronation / cavus foot with rigidity / planovalgus foot
- Sudden increase in intensity, frequency, and/or duration of training /overuse
- Increase in weight
- Change in shoes or running style
- Sneakers too flexible in the middle of the arch
- Calcaneal spur
- Hard surfaces
- Tight Achilles tendon/ gastrocnemius muscle



### **About the Author: Jennifer Bozek, MPT**

Jennifer joined KPT in July 2002 after relocating from Potsdam, NY and graduating from Clarkson University. She is an avid runner and can appreciate and manage running injuries. Her vibrant personality and professionalism has been helping the injured runner, athlete, or patient return to their previous functioning level.

## **Patellofemoral Disorders**

Patellofemoral dysfunction may be defined as pain, inflammation, imbalance, and/ or instability of any component of the extensor mechanism of the knee. There are several syndromes that may cause anterior knee pain. Chondromalacia patella is the softening of the articular cartilage on the undersurface of the patella. Patellofemoral syndrome is caused by improper tracking of the patella. The ability of the patella to track properly in the trochlear groove depends on the bony structures and the balance of forces of the soft tissues about the joint.

**Signs and Symptoms:** Pain around or under the patella, swelling/tenderness/pain at medial patellar, tight lateral structures/ITB, occasional quad wasting/weak vastus medialis, increased pain with the knee bent.

### **Factors contributing to Patellofemoral Disorders in runners:**

- Increase in the Q angle ( Normal is < 10° in males, < 15° in females)
- Weak VMO
- Tight lateral structures (ITB, lateral retinaculum)
- Wide hips (Especially in female runners)
- Genu valgum
- Patella alta/ subluxing patella
- Small medial pole of the patella
- Increased pronation
- Tight muscles (Especially the hamstrings and gastrocnemius)

## **www.kptrehab.com**

Don't forget to check us out on the web and tell your patients about it when making a referral.

### Quotes:

"I found the website extremely informative and it helped me manage my acute ankle sprain."

"An excellent website! The videos of my exercises were very helpful and allowed me to verify my techniques."

"Wow! What a great website."



COMMERCENTRE EAST  
SUITE 130  
1777 REISTERSTOWN ROAD  
PIKESVILLE • MARYLAND • 21208

## **Other common running injuries include:**

Illiopsoas Tendonitis, Piriformis Syndrome, Shin Splints, Stress Fractures, Low Back injuries, Hamstring Tendonitis, and Patellar Tendonitis.

## **Kassimir Physical Therapy Management of the Problem:**

Here at KPT we offer a comprehensive treatment approach. We carefully evaluate the patient, assess the problems, set treatment goals, and plan an individualized treatment program for the clinic and at home. We look closely at the possible causes of the problem and work with the patient to prevent future reoccurrences. Our aquatic therapy program also provides an ideal setting for hydrotherapy (including pool running) which speeds healing and rehabilitation, and allows runners to maintain their fitness level during the healing process.

## **New Additions to KPT:**

We have recently traded in our old Cybex II+ for a state of the art Cybex Norm Isokinetic Dynamometer. This is a single chair testing and rehabilitation device that can do various forms of strengthening, such as Isokinetic, isotonic, eccentric, concentric, isometric, and CPM. All referrals receive a full computer generated comparison report to uninjured side, therapist analysis, and can be used as part of a functional capacity evaluation.



**KASSIMIR PHYSICAL THERAPY, P.A.**

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1777 REISTERSTOWN ROAD • PIKESVILLE, MD • 21208  
TEL • 410•415•5905 • FAX • 410•415•5906

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