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## Triathlon Injuries



A triathlon is a sporting event comprised of 3 legs: **swimming, biking, and running**. There are varying distances of a triathlon, including **Sprint, Olympic, and Ironman**. **Injuries in this sport are most commonly caused by overuse and/or improper form**. The endurance demands of a triathlon can result in muscle fatigue and poor form. Training for these endurance races is an important part of injury prevention.

### Swimming Injuries:

#### 1. Swimmer's Shoulder (Shoulder Impingement)

- Caused by continual overhead rotation motion. This repetitive motion causes the tendons in the shoulder to become inflamed and get impinged between the shoulder blade and humerus of the arm during overhead movement.



#### 2. Shoulder Bursitis

- Caused by microtrauma to the shoulder causing inflammation of the bursa

#### 3. Bicipital Tendinitis

- Caused by repetitive overhead rotation, weak rotator cuff or upper back muscle, and tightness in the shoulder joint

These are the most common overuse injuries if swimmers use a freestyle stroke, the stroke most often used in a triathlon. Using other strokes may predispose athletes to other injuries.



### Treatment for swimming injuries may include:

- Rest and ice
- Therapy/rehabilitation
- Change in stroke mechanics
  - Specifically preventing hands from crossing midline during freestyle pull-through)
- [Corticosteroid injection](#)
- [Osteopathic Manipulative Treatment \(OMT\)](#)
- [Extracorporeal shockwave therapy \(ESWT\)](#)
- [Prolotherapy or PRP](#) to treat cases caused by joint laxity



Shockwave Treatment of the Shoulder

## **Biking Injuries:**

### **1. Patellar Tendinitis**

- Caused by overuse, using a high gear and low cadence on the bike, weak thigh muscles, or sudden changes in mileage

### **2. Neck and Back Strain**

- Caused by rounding of back from handlebars that are too low or tight hamstrings and hip flexors



### **3. Ulnar Nerve Injury**

- Caused by compression of the ulnar nerve in the wrist due to constant hyperextension while holding the handlebars

### Treatment for biking injuries may include:

- Rest and ice
- Therapy/rehabilitation
- Change in riding position
  - *Ensure proper bike fit*
- Wearing padded gloves
- [Corticosteroid injection](#)
- [Osteopathic Manipulative Treatment \(OMT\)](#)
- [Extracorporeal shockwave therapy \(ESWT\)](#)
- [Prolotherapy or PRP](#) to treat chronic cases
- [Nerve hydrodissection](#) for chronic nerve issues





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## Running Injuries:

### 1. Shin Splints

- Caused by overuse, using footwear with lack of support, and sudden changes in training level. These things can cause inflammation of the bones, tendons, and muscles around the shin bone.



### 2. IT Band Syndrome (ITBS)

- Caused by inflammation of the bone, tendons, or bursa along IT band causing pain along outside of knee, occasionally radiating into the hip

### 3. Plantar Fasciitis

- Caused by repetitive strain of the plantar fascia tissue on the heel of the foot. This repeated stretching and tearing can cause inflammation of the fascia.

### Treatment for running injuries may include:

- Rest and ice
- Therapy/rehabilitation
- Gait/running adjustment
- Foam rolling
- Orthotics/heel cups
- Frozen water bottle arch massage
- [Osteopathic Manipulative Treatment \(OMT\)](#)
- [Extracorporeal shockwave therapy \(ESWT\)](#)
- [Prolotherapy or PRP](#) to treat chronic cases



Platelet Rich Plasma (PRP)

### References:

Active.com

Triathlete.com

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