Top Three Common Injuries in Running

Let's face it, every runner experience some sort of injury one way or the other. And why not? You run at least 5 miles a day, some more, some less. That is a lot of pounding on your knees and feet, not to mention the wear and tear on your joints and muscles. The top three most common repetitive running injuries are plantar fasciitis, ITB syndrome, and shin-splints.

Plantar fasciitis is characterized by the feeling of pain at the base of the heel with walking and/or running. Changing your stride or slowing down would only temporarily alleviate the pain. This pain is most severe in the morning and/or when you take the first few steps. ITB syndrome occurs when the iliotibial band – on the outside of the thigh – becomes tight from overuse. You initially feel a dull ache when you run, but the pain dissipates when you stop. If left untreated for some duration of time, you will experience severe pain when you run, and will be worse during downhills and uphills. Shin-splints is experienced when there's pain or tenderness along the inside of the shin, and the pain may extend to the knee. This pain is most severe at the start of a run, but may disappear during the run as the muscles loosen up.

What Causes Plantar Fasciitis?

1) Biomechanical flaws due to physical activity/training errors
2) Excessive pronation
3) Weight gain
4) Changing running surfaces
5) Sudden increases in training mileage
6) Soft tissue restrictions ranging from the foot through the hamstring

The most common restriction is a tight Achilles tendon. The Achilles tendon is at the back of the ankle and connects to the calf muscles. When the Achilles tendon is contracted or tight, so is the plantar fascia. With each step the runner takes, the tightness of the Achilles causes irritation at the attachment of the plantar fascia into the calcaneus.

What Causes ITB Syndrome?

Iliotibial Band Syndrome, a.k.a. Runner's Knee occurs in 30% of the 15 million runners in America. The iliotibial band runs down the outside of the thigh. If this becomes tight from overuse, the tendon will start to rub on the knee. This repetitive action on the knee during running or walking will cause inflammation. This inflammation will cause swelling in the bursa, eventually causing a clicking sound on or around the knee. Running will then be too painful to participate in. If you rest it at this point, the inflammation will subside but because the Band is tight, the tendon will become inflamed again once you start running.

What Causes Shin-Splints?

There are generally two types of shin splints. The first is the anterior shin splints, which are muscles are used for shock absorption. When these muscles are weak, or are placed under increased demand as in walking or running on hard surfaces, or when the shoe has no shock absorbing quality, the force is transmitted to the tibia and its attachments. The second is the posterior type, which act as ankle stabilizers and appear to be overstrained when the runner is hyperpronated (inward rotation of the foot).

Treatment
Various treatments have traditionally been used to treat these injuries, i.e. ice, rest, orthotics, anti-inflammatories, ultrasound. However, these treatments, though may be effective short-term, do not get to the root of the problem. (Long-term use of anti-inflammatories can have adverse effects on the body).

ART®, created by Dr. P. Michael Leahy, is fast becoming more and more sought-after as *the* treatment for muscle injuries. Active Release Techniques® (ART®) is a medically patented soft tissue technique that is quite effective in "freeing up" the soft tissue restrictions to allow normal function/movement to the affected areas. ART® requires an alteration in tissue structure to break up the restrictive cross fibro adhesions, (i.e., scar tissue) and restore normal function to affected soft-tissue areas.

Massage Therapy is also a popular treatment and can aid in rehabilitating physical injuries by increasing circulation to the affected area. Massage Therapy can compliment ART® treatments, but by itself, does not effectively address issues of adhesion/scar tissue.

To fully resolve plantar fasciitis, additional structures in the plantar fascia, hamstring, the foot and muscles leading up to the hip need to be evaluated and treated as well. To truly resolve ITBS, every structure that crosses the lateral side of the knee must be evaluated and treated. To fully resolve shin-splints with ART® treatments, adhesions are broken down allowing the muscle to lengthen, thereby reducing the probability of future injuries.

How to Avoid Re-occurrence
Incorporate specific stretching and strengthening exercises for the plantar fasciitis, ITB, and shin-splints, and their surrounding structures after the adhesions (injuries) are released. Conduct a biomechanical analysis, which finds the soft-tissue structures that are the primary cause of the biomechanical dysfunction as well as affected structures restricting your performance. I would also advocate incorporating an anti-inflammatory nutritional protocol (see below), in addition to avoiding all saturated fats, and upping your Omega-3 fatty acids.

These anti-inflammatory proteolytic enzymes are to be taken twice a day in between meals, not right before meals, for 10 days:

1) Bromelain – 200 mg (derived from pineapple plant)
2) Papain – 100 mg (papaya enzyme)
3) Trypsin – 100 mg
4) Chymotrypsin – 200 mcg
5) Tumeric extract (used as a spice, comes from a plant in India)

Reference:

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5) Phy and Sports Med, August, 1991
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7) Greenfield, B. Evaluation of overuse syndromes. The Biomechanics of the Foot and Ankle, 1990

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