

Sprinters vs Marathoners

By Dr. Jon DeGorter, Jonas Chiropractic Sports Injury Care



Sprinting and marathons are at opposite ends of the running spectrum. Both are challenging and require a lot of training. While sprinters must maximize every muscle movement to improve their speed, marathon runners must maximize these movements for endurance. As a result, sprinters and distance runners have different training methods and tend to have distinct body types. A sprinter body is built for speed and power while the marathoner is built for long, slow endurance.

There are more differences between sprinters and marathoners than their physical appearance. Marathoners have more slow-twitch muscle fibers while sprinters primarily have fast-twitch muscle fibers. Slow-twitch muscle fibers are slow oxidative fibers that produce slower muscle contractions and are highly resistant to fatigue. Fast-twitch muscle fibers produce fast contractions that fatigue quickly. Training for sprinters focuses on developing fast-twitch muscle fibers by improving speed, strength, and power. Marathoners focus on developing cardiorespiratory fitness, muscular endurance, and stamina.

Speed vs Distance Running Injuries

Speed training taxes the anaerobic system and increases your ability to process lactate. Speed works demand for power creates high-intensity muscle fatigue. Sprinting requires your muscles to do very hard work in a short amount of time, and when your muscles are working harder, they are more vulnerable to injury.

Muscle strains and tears are common in sprint events, particularly in the hamstring, groin, and calf. Achilles and calf strains and tears are commonly caused by exploding off the starting blocks. Sprinters push the limits of speed and often training as close to the fine line of injury as possible. Shin splints is also a common injury, often caused by running on toes or the forefoot and running on hard surfaces such as tracks.

Long-distance training increases your endurance by creating sustained low-intensity muscle fatigue. Distance running works your aerobic system and increases your body's ability to deliver oxygen to working muscles. Because distance running puts your body under stress for longer, it can increase injury susceptibility gradually over time. These injuries will be more subtle than acute and can take longer to recover from.

Overuse injury is the result of cumulative stress from repetitive microtrauma. When muscles become fatigued due to prolonged or excessive activity the muscle is damaged, resulting in loss of strength and flexibility. When running longer distances, fatigue contributes to less efficient form and decreased stride length, which increases your risk of injury. Overuse injuries most common with long-distance running include Achilles tendonitis, plantar fasciitis, IT band syndrome, and runner's knee.

If you self-treat an acute or overuse injury and home remedies have lost their effectiveness, you should seek professional treatment and have your injury evaluated. It is important to pinpoint the factors that are contributing to the injury and devise a corresponding treatment plan. While physical therapy focuses on strength and coordination, chiropractic sports injury care improves joint mobilization, ensuring that all the joints are moving correctly in coordination with the soft tissue. Just as every runner is unique, every injury has different causes. At Jonas Chiropractic Sports Injury Care you receive a personalized treatment plan geared to your training or recovery goals.

Active Release Technique® and Graston Technique® are very successful in treating acute and overuse injuries through the use of intense active movement-based massage treatment, which sets it apart from passive massage or physical therapy. ART and GT promote faster recovery, restoration of normal tissue function and helps prevent future injury. Active Release Technique and Graston Technique allows tissue to heal in the correct patterns to restore normal function and increase performance. The techniques and therapy provided by Jonas Chiropractic Sports Injury Care are natural and non-invasive and have successfully helped many athletes come back faster from injury and return to pain-free running.

As an essential service, we are open Monday, Wednesday, and Friday during the crisis. To show our appreciation to all the healthcare workers on the frontline, any Hospital/EMS worker receives a FREE visit, and co-pay waived for the first visit.

Dr. Jon DeGorter is part of the Jonas Chiropractic Sports Injury Care team. Dr. Jon specializes in treating runners and triathletes. He is well versed in injury prevention and rehabilitation — keeping athletes doing what they like to do!