



# Treating the Endurance Athlete Through a Collaborative Approach



Podiatrists are key members of the multidisciplinary sports medicine team.

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*Practice Management Pearls is a regular feature that focuses on practice management issues presented by successful DPMs who are members of the American Academy of Podiatric Practice Management.*

**W**e have all seen successful sports teams that win it all. In every case, the players have a great clubhouse vibe. They love the game, communicate well, do not care about who gets the credit, and want to win! It is no different in medicine. We want the best outcomes for our patients. A collaborative approach, just like the championship athletic teams use to clinch it all, is the best way to achieve an excellent result. This is particularly true when treating multi-sport and endurance athletes. Like any subset of patients, they have their own typical injuries and unique needs. Their sports are a central part of their lives and often athletes are how they define themselves. Therefore, getting them back into the game is important from both a physical and psychological standpoint.

## Overuse Injuries

Collaborating with other providers in your community will allow your endurance athletes to compete pain-free, to do so faster, and enhance your reputation. Even if you are not an

endurance athlete yourself, you can begin to assemble or become part of a team of providers who are passionate about treating the overuse injuries frequently seen in these patients. Through collaboration with other like-minded professionals, your practice will see a noticeable increase in these patients for whom you can offer a variety of podiatric services.

In most cases, the lower extremity injuries sustained by endurance athletes are from overuse. The most

questions in your history about their training and any changes that were recently made. For example, have they started doing speed intervals on a steep hill and if so, are they doing it both ascending and descending?

Additionally, ask about changes in shoes, gait, and road surfaces. This is particularly important in running. Since runners represent the prototype endurance patient, knowledge of the sport is critical. Ask runners if they recently changed shoes—for example,

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common presentations include plantar fasciitis, lesser metatarsalgia, Achilles tendinosis/insertional tendinitis, posterior tibial tendinitis, peroneal tendon pathology, and stress fractures. Ideally, to avoid these problems, a training program should alternate more strenuous exercise with periods of rest to adequately recover. These patients will start to improve performance during training and then start adding volume (distance), frequency (number of daily/weekly workouts) and/or intensity (speed/incline) to their race preparation without adequate rest days or cross-training. You should include

moving to a zero-drop shoe or a max cushion. This is especially important to those patients competing as masters as they may be more prone to injury due to changes in training. Serious runners will work on their stride or cadence, quickening it to enhance midfoot strike and increase efficiency, which can lead to injuries, especially lesser metatarsalgia.

Most runners will run on the left side of the road, against traffic and counterclockwise on track workouts. Alternating the side of the road (if safe), direction on the track, or mov-

*Continued on page 80*



## Endurance Athlete (from page 79)

ing to a softer surface can reduce risk of overuse injuries. Rubberized tracks, smooth trails, or a golf course can represent an excellent alternative surface for workouts and can build greater strength. Triathletes presenting with foot pain often develop the problem from cycling and not running. This is especially true with lesser metatarsalgia, which is often caused by clip-in pedals and shoes. Eliciting a detailed history will allow you to make the appropriate recommendations to the patient, which will improve your treatment and outcomes.

### Diagnostic Tools

Having established the subjective findings and based on your examination, the utilization of digital x-rays, ultrasound, and advanced imaging will be important adjuncts to making an accurate diagnosis. Ultrasound has become a critical tool in sports medicine for real-time images of a variety of pathologies, including early diagnosis of stress fractures, tendinitis, and bursitis, as well as needle guidance for therapeutic injections, and drainage of fluid-filled cysts and joints. The popularity of ultrasound stems from the ease of use and relative low cost when compared to advanced imaging. MRI may also be an important ancillary service to confirm a diagnosis.

### Treatment Considerations

Treatment of multi-sports and endurance athletes can be challenging and rewarding. Many times, the podiatric physician is the provider of last resort, so having multiple ancillary treatment options will play a crucial role in a full recovery. Consideration needs to be given to utilizing extracorporeal shockwave therapy (ESWT) or extracorporeal pulse-activated treatment (EPAT) for plantar fasciitis, tendinosis, and insertional tendinitis. While patients may experience an immediate analgesic effect during early treatment, lasting results are not realized for at least three months. Similarly, plasma-rich platelet (PRP) injections are effective for these pathologies and while more restrictive aftercare is necessary, the patient often benefits from the rest.

Communication with your team of professionals should be considered as soon as the endurance athlete is diagnosed and you have started treatment. Timely referral to one or more of these individuals will ultimately lead to a more rapid recovery and return to pain-free competition. Professional services can include physical therapists, chiropractors, exercise physiologists, and orthotists. Additionally, a good athletic shoe store with appropriately trained staff can be helpful for these patients.

This is a measure of the maximum volume of useable oxygen which is believed to be a key physiological factor in performance.

To help overcome the decline in performance that is normally seen with decreasing VO<sub>2</sub> max, exercises to build the muscles involved in running (glutes, hamstrings, calves) are used. Once learned through one-on-one training with the exercise physiologist, increased performance can be measured and documented. Motivated patients are very satisfied with the

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## Alternating the side of the road (if safe), direction on the track, or moving to a softer surface can reduce risk of overuse injuries.

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When selecting a physical therapist, consideration must be given to his/her area of subspecialty. Most communities will have a physical therapist who specializes in foot and ankle and/or treating endurance athletes. Many physical therapists use modalities such as iontophoresis, myofascial trigger-point dry-needling, and the Graston technique (GT). This employs instrument-assisted soft tissue mobilization (IASTM) and effectively addresses scar tissue and fascial restrictions which can restore normal range of motion. GT is clinically proven to achieve faster and better outcomes for acute and chronic conditions such as Achilles tendonitis, adhesive capsulitis, and plantar fasciitis.<sup>1</sup>

A growing number of sports-centric practitioners, especially chiropractors and physical therapists, have begun to utilize active release techniques (ART) for treatment of athletic injuries. It is a movement-based massage technique which can effectively treat musculoskeletal and nerve pathology. Endurance athletes have widely benefitted from this treatment, and it can be considered once you establish a relationship with a professional trained in its use. Exercise physiologists can help your recovering athlete to improve performance and prevent future injury. Endurance athletes will have a natural reduction in VO<sub>2</sub> max throughout their lifetime.

tangible results achieved. Finally, an orthotist with a special interest in athletic shoes will spend the necessary time with patients to choose the proper shoe for their foot type and diagnosis. Consideration should be given to carrying athletic shoes in your office and even hiring an orthotist to work in your practice if you have a high enough volume of patients.

Development of a team of professionals passionate about sports medicine and treating endurance athletes will enhance your reputation and grow your practice. You will be able to offer them your expertise, cutting-edge technologies, useful ancillary services, as well as a balanced team to get them to the starting line. This type of patient-centered approach to care makes sense and will ultimately lead to better outcomes and a happier patient. **PM**

### Reference

<sup>1</sup> Graston Technique: [www.graston-technique.com](http://www.graston-technique.com)



**Dr. McCann** practices in Concord, NH and is past president of the American Academy of Podiatric Practice Management.