repetitions. At the outset of the initial study, patients had significantly lower eccentric and concentric calf muscle strength on the injured side, but after treatment all 15 participants were back at preinjury levels of running activity. With further investigation and refinement, this regimen has been modified to include concentric and eccentric exercises and fewer repetitions.³

The triceps surae and Achilles tendon complex spans three joints to form a system that is integral to walking and running. Taken as a whole, the muscle-tendon unit crosses the knee, ankle, and STJ, setting the potential for competing rotational forces to act along its length. As the foot pronates, the tibia internally rotates, but later in the cycle external rotation of the distal tibia can put a counter force on tissue. Similarly, it is believed that excessive pronation of the STJ can generate a shearing force at the insertion. Foot orthotics can be designed to alter kinetics and motion, and they have been shown to be effective in an overall treatment plan.⁴⁵ Semirigid orthotics with deep heel cups and rearfoot extrinsic posts offer control for the foot, limiting eversion and enhancing the timing and duration of pronation. It is easy to incorporate a heel raise onto an orthotic and then gradually remove it over time as the tendon heals. It is also important to wear well-fitting and appropriate shoes that provide stability and support for the foot and orthotic.

Achilles tendinopathy can be a chronic condition that severely limits the activities of otherwise active and fit individuals. It is classified by specifying the location and the nature of the pathology. Although the etiology may be multifactorial, there is a significant body of research to show it can be conservatively treated with a combination of rest, physical therapy, and improved biomechanics. O&P Edge

Séamus Kennedy, BEng (Mech), CPed, is president and co-owner of Hersco Ortho Labs, New York. He can be contacted at seamus@hersco.com or by visiting www.hersco.com.

References

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