

This edition of *Orthopaedic Practice* will be landing on your desk right around the time of the Combined Sections Meeting 2019. This meeting always provides ample opportunity to catch up with colleagues, invigorate practice with some new ideas, and stimulate our thinking with current evidence. Two talks in particular were interesting as the FASIG started planning for the meeting in early 2018. First, the FASIG sponsored the educational program titled, “A Foot Core Approach to Treating Plantar Fasciitis” by speakers Irene Davis, PT, PhD, FAPTA; Sarah Ridge, PhD; and Lindsay Wasserman, DPT, FAAOMPT. The second talk was titled “Physical Therapist Management of Foot and Ankle Pain From Head to Toe,” by Ruth Chimenti, PT, DPT, PhD; Beth Fisher, PT, PhD, FAPTA; and Mary Hastings, PT, DPT, ATC, MSCI. These two talks offer some great insight into two very diverse, but historical topics in foot and ankle care. Strengthening the foot has been a topic of debate for decades with seminal papers on muscle electromyographic activity in the foot dating back to 1963.¹ The focus on foot strengthening continues today with novel work on midfoot power during walking and running which continues to define the paradigm for the role of foot strength.^{2,3} Equally historical and yet, also timely, is the discussion of pain pathology, impairments, and psychological factors.

The literature on management for plantar fasciitis over the past year has included systematic reviews on the use of laser therapy⁴ and platelet-rich plasma,^{5,6} while insight into mechanisms that might cause, or influence, plantar fasciitis such as gastrocnemius tightness⁷ and muscle strengthening are evolving. Clearly, our clinical practice guidelines have advocated the use of stretching and strengthening in the management of heel pain.⁸ Novel work, including that presented in regards to strengthening of the foot intrinsics, is sure to foster increased discussion and study on the topic of foot muscle strength in common foot conditions such as plantar fasciitis.

It is also a FASIG highlight to see the topic of pain neuroscience focused on common foot and ankle conditions. The influence of tissue-specific stress on movement and pain is familiar in our biomechanical literature⁹ but has re-surfaced when compared and integrated into a biopsychosocial approach to pain.¹⁰ Finally, the consideration of brain-behavior effects on our patient instruction was wonderful to see integrated into case studies.

I hope that you were either able to enjoy these talks at CSM personally, or will take a moment to review the slides posted online along with the supporting literature.

1. Basmajin J, Stecko G. The role of muscles in arch support of the foot. *J Bone Joint Surg Am.* 1963;45(6):1184-1190.
2. Bruening DA, Pohl MB, Takahashi KZ, Barrios JA. Midtarsal locking, the windlass mechanism, and running strike pattern: A kinematic and kinetic assessment. *J Biomech.* 2018;73:185-191.
3. DiLiberto FE, Nawoczenski DA, Houck J. Ankle and midfoot power during walking and stair ascent in healthy adults. *J Appl Biomech.* 2018;34(4):262-269.
4. Li X, Zhang L, Gu S, et al. Comparative effectiveness of extracorporeal shock wave, ultrasound, low-level laser therapy,

noninvasive interactive neurostimulation, and pulsed radio-frequency treatment for treating plantar fasciitis: A systematic review and network meta-analysis. *Medicine (Baltimore).* 2018;97(43):e12819.

5. Franchini M, Cruciani M, Mengoli C, et al. Efficacy of platelet-rich plasma as conservative treatment in orthopaedics: a systematic review and meta-analysis. *Blood Transfus.* 2018;16(6):502-513.
6. Ling Y, Wang S. Effects of platelet-rich plasma in the treatment of plantar fasciitis: A meta-analysis of randomized controlled trials. *Medicine (Baltimore).* 2018;97(37):e12110.
7. Chan O, Malhotra K, Buraimoh O, et al. Gastrocnemius tightness: A population based observational study. *Foot Ankle Surg.* 2018; pii: S1268-7731(18)30126-7.
8. Martin RL, Davenport TE, Reischl SE, et al. Heel pain-plantar fasciitis: revision 2014. *J Orthop Sports Phys Ther.* 2014;44(11):A1-33.
9. Mueller MJ, Maluf KS. Tissue adaptation to physical stress: a proposed "Physical Stress Theory" to guide physical therapist practice, education, and research. *Phys Ther.* 2002;82(4):383-403.
10. Janwantanakul P, Sihawong R, Sitthipornvorakul E, Paksaichol A. A path analysis of the effects of biopsychosocial factors on the onset of nonspecific low back pain in office workers. *J Manipulative Physiol Ther.* 2018;41(5):405-412.