New Techniques in Ankle and Foot Adjusting 2 Hours

Donald C. DeFabio, DC, DACRB, DACBSP, DABCO

Foot and ankle pain is often chronic, recurring and requires more than orthotics and rest to resolve. This 2-hour course includes an anatomy review, relevant biomechanics, soft tissue assessment, CMT of the region and active care. The treatment of heel and foot pain will be reviewed from a multimodal perspective supported in the literature. The use of shock wave and transfer of energy capacitive and resistive (TECAR) therapies will be introduced as an adjunct to improve soft tissue compliance and facilitate healing.

Learning Objectives:

- Review of anatomy and biomechanics of the ankle and foot
- Differential diagnosis of heel and foot pain
- Joint play and CMT of articulations of the ankle and foot
- Soft tissue management of plantar fasciitis, Achilles tendinopathy and metatarsalgia
- Active care progressions for foot and heel pain
- The application of modalities for healing and recovery

Hour 1: Biomechanics and anatomy review. Emphasis on soft tissue and osseous landmarks for CMT, soft tissue assessment and active care.

Hour 2: CMT of the ankle and foot. Indications and application of extracorporeal shock wave therapy and transfer of energy capacitive and resistive (TECAR) therapy in the management of common foot conditions.

References:

Musculoskeletal Physical Examination, Malanga G, Mautner, K, Elsevier, Philadelphia PA, 2nd edition, 2017

Therapeutic Exercise, Foundations and Techniques, Kisner C, Kolby LA, FA Davis, Philadelphia, PA, 6th Edition 2012

Bito T, Tashiro Y, Suzuki Y, Kajiwara Y, Zeidan H, Kawagoe M, Sonoda T, Nakayama Y, Yokota Y, Shimoura K, Tatsumi M, Nakai K, Nishida Y, Yoshimi S, Tsuboyama T, Aoyama T. Acute effects of capacitive and resistive electric transfer (CRet) on the Achilles tendon., Electromagn Biol Med.

Boonchum, H, et al, Effect of a home-based stretching exercise on multisegmental foot motion and clinical outcomes in patients with plantar fasciitis, J Musculoskelet Neuronal Interact 2020; 20(3):411-420

Lai TW, et al, Ultrasonography and clinical outcome comparison of extracorporeal shock wave therapy and corticosteroid injections for chronic plantar fasciitis: A randomized controlled trial, J Musculoskelet Neuronal Interact 2018; 18(1):47-54

Lee JH, et al, The effects of hip strengthening exercises in a patient with plantar fasciitis, A case report, Medicine (2019) 98:26

Meizi Wang M, et al, The Influence of Heel Height on Strain Variation of Plantar Fascia During High Heel Shoes Walking-Combined Musculoskeletal Modeling and Finite Element Analysis, Frontiers in Bioeng and Biotech, Dec 2021, Volume 9, Article 791238

Okur SC, Aydın A, Comparison of extracorporeal shock wave therapy with custom foot orthotics in plantar fasciitis treatment: A prospective randomized one-year follow-up study, J Musculoskelet Neuronal Interact 2019; 19(2):178-186

Rhim HC et al, A Systematic Review of Systematic Reviews on the Epidemiology, Evaluation, and Treatment of Plantar Fasciitis, Life 2021, 11, 1287.

CE Questions:

- 1. Dorsiflexion of the ankle primarily occurs at the ankle mortise (talocrural) joint. T.
- 2. The distal metatarsal heads do not have joint play in A/P glide. F
- 3. Locke's maneuver is an adjustment of the proximal tibio-fibular joint. F
- 4. Upon palpation, a joint with a soft, springy end feel is an indicator it needs CMT. F
- 5. A hard, bony block on end feel assessment indicates an osseous block or arthritis. T
- 6. The plantar fascia has 3 distinct bands. T