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ÉVALUER pour mieux TRAITER

SOCIÉTÉ FRANÇAISE DE PHYSIOTHÉRAPIE

Société Française
des Masseurs Kinésithérapeutes du Sport

Pré congrès

Rééducation de l'entorse et de l'instabilité chronique de cheville : Mises à jour 2019

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Inscriptions et renseignements

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A SYSTEM OF STRATEGIES FOR OPTIMIZING FOOT AND ANKLE REHABILITATION

Injuries to the foot and ankle are ubiquitous in sport and leisure. These injuries often shift from short-term impairments to chronic conditions and have a large impact on a patient's quality of life, self-efficacy, and ability to engage in meaningful physical activity. There are many underlying factors that govern this shift. By developing an appreciation of the functional demands of the foot and ankle and the means of capturing related outcomes, it may be possible to break this continuum of disability that many patients experience. The purpose of this workshop is to provide participants with an evidence-based system to guide their decisions in foot and ankle rehabilitation to break the continuum of disability.

Morning Session: Functional Demands of the Foot and Ankle and the Identification of Common Problems

Morning session 1: Are you off your rocker? (1-hour presentation/demonstration, 15 minutes group discussion)

a. A review of critical gait concepts for understanding foot and ankle function, with specific emphasis on the foot and ankle rockers.

b. The functional demands of the foot and ankle: Absorption, propulsion, and stability (30 minutes)

c. The foot core system – integrating the component parts of the foot and ankle into a system to meet the functional demands

Morning Coffee Break: 20 minutes

Morning session 2: From Foot and Ankle Problems to Outcomes (1 hour presentation/demonstration, 15 minutes group discussion):

a. Key problems associated with foot and ankle injuries through the lens of the functional demands (30 minutes)

b. Creating appropriate baselines for capturing the problems and informing clinical decisions for rehabilitation goals and intervention selection (45 minutes)

1. Identification of structural and functional impairments

    i. Weight-bearing lunge test

    ii. Star Excusion Balance Test

    iii. Hopping Tests (e.g. side hop test, single hop for distance, timed 6 m hop)

2. Self-reported function in relation to activity and participation

    i. Global Rating of Function scales

    ii. Regional Rating of Function scales

Lunch Break (1 Hour)

Afternoon Session: Intervention Strategies for Optimizing Foot and Ankle Function

Afternoon Session 1: Sensory-Targeted Ankle Rehabilitation Strategies (STARS) (30 minutes presentation/ demonstration, 1 hour Laboratory)

a. Sensorimotor control and the continuum of disability in foot and ankle injuries
    1. The Dynamic Systems Theory and Spontaneous Self-Organization
    2. Sensory-reweighting and its role in the functional demands of the foot and ankle
b. Targeting sensory receptors for enhancing foot and ankle functional demands
    1. Joint Mobilizations
    2. Plantar Massage
    3. Foot Core Training
    4. Stretching

Afternoon Coffee Break: 20 minutes

Afternoon Session 2: Progressive Loading and Neuromuscular Enhancement Training Strategies (PLANETS) (30 minutes presentation/demonstration, 1 hour Laboratory)

a. Purposeful manipulation of the task and environment for enhancing functional demands
b. Progression of Task Complexity and Environmental Predictability
    i. Standing
    ii. Hopping and Landing
    iii. Full return to functional demands
c. Using movement errors to guide progression decisions

Afternoon Conclusion: Putting it all together -From Problem to Goal to Intervention to Outcome (20 minutes)

Participant Learning Outcomes:

Upon completion of this workshop, participants will be able to:

1. Identify the foot and ankle rockers in gait
2. Explain the demands of absorption, propulsion, and stability in the context of foot and ankle function.
3. Recognize foot and ankle problems through the lens of functional demands.
4. Utilize sensory-targeted ankle rehabilitation strategies to enhance relevant sensory information for foot and ankle function.
5. Design progressive loading and neuromuscular enhancing training strategies through the integration of the dynamic systems theory and the constraints-led approach to rehabilitation.
6. Capture the most appropriate and relevant evidence-based outcomes to inform clinical decisions about foot and ankle functional demands.

Patrick O. McKeon, PhD, ATC, CSCS

Hill Center, G66
Department of Exercise and Sport Science
Ithaca College
(607) 274-1455; pmckeon@ithaca.edu

EDUCATION

2007 Doctor of Philosophy, Sports Medicine
University of Virginia, Charlottesville, VA
Dissertation Title: "The effect of a four-week balance training program on postural control and gait parameters in those with chronic ankle instability."

2001 Master of Science, Sports Health Care
Arizona School of Health Sciences, Phoenix, AZ

1997 Bachelor of Science, Athletic Training
Springfield College, Springfield, MA

PROFESSIONAL EXPERIENCE

2017-Present Associate Professor
Athletic Training Clinical Education Coordinator
Department of Exercise & Sport Science
School of Health Sciences & Human Performance
Ithaca College, Ithaca, NY

2007–2013 Assistant Professor, Division of Athletic Training
Department of Rehabilitation Sciences, College of Health Sciences
University of Kentucky, Lexington, KY

RELEVANT PEER-REVIEWED PUBLICATIONS (From a list of 75)

McKeon PO, Donovan LK. A Perceptual Interdependence Framework for Conservative Treatment and Rehabilitation of Ankle Sprains: An Evidence-based Paradigm Shift. J Athl Train (In Press)

McKeon PO, Wikstrom EA. The effect of sensory-targeted ankle rehabilitation strategies on single-leg center of pressure elements in those with chronic ankle instability: A randomized clinical trial. J Sci Med Sport. 2018 Sep 6. pii: S1440-2440(18)30599-1. doi: 10.1016/j.jsams.2018.08.017. (Epub ahead of print)

McKeon PO, Wikstrom EA. Sensory-targeted ankle rehabilitation strategies for chronic ankle instability. *Medicine and Science in Sport and Exercise* 2016 May;48(5):776-84.

McKeon PO Fourchet F. Freeing the foot: Integrating the foot core system into rehabilitation for lower extremity injuries. *Clinics in Sports Medicine* 2015;34(2):347-361.
McKeon PO, Hertel J, Bramble D, Davis I. The foot core system: a new paradigm for understanding intrinsic foot muscle function. *British Journal of Sports Medicine* 2015;49:290.
Wikstrom EA, Hubbard T, **McKeon PO**. Understanding and treating lateral ankle sprains and their consequences: A constraints-based approach. *Sports Medicine* 2013;43(6):385-93.
McKeon PO. Dynamic systems theory as a guide to balance training development for chronic ankle instability. *Athletic Training and Sports Health Care* 2012;4(5):230-6.
Hoch MC, Andreatta RD, Mullineaux DR, English RA, Medina McKeon JM, Mattacola CG, **McKeon PO**. Two-week joint mobilization intervention improves self-reported function, range of motion, and dynamic balance in those with chronic ankle instability. *Journal of Orthopedic Research* 2012;30(11):574-9.
Hoch MC, **McKeon PO**. Integrating contemporary models of motor control and health in chronic ankle instability. *Athletic Training and Sports Health Care* 2010;2(2):82-88.
McKeon PO, Ingersoll CD, Saliba EN, Kerrigan DC, Bennett BC, Hertel J. Balance training improves function and postural control in those with chronic ankle instability. *Medicine and Science in Sports and Exercise.* 2008;40(10):1810-9.

RELEVANT EDITORIALS (From a list of 17)

Medina McKeon JM, **McKeon PO**. Patient Evidence (AKA, Boy, Patients complicate our clinical practice). *International Journal of Athletic Therapy and Training* 2017;22(6):1-4.

McKeon PO, Medina McKeon JM. Outcomes assessment: demonstrating our predictive ability as a healthcare profession. *International Journal of Athletic Therapy and Training* 2016;21(4):1-3.

RELEVANT PROFESSIONAL SERVICE

2014-Present	Co-Editor in Chief *International Journal of Athletic Therapy and Training*
2012	Conference Coordinator International Ankle Symposium *University of Kentucky*
2012-Present	Executive Council Member *International Ankle Consortium*
2012-Present	Associate Editor *Journal of Athletic Training*