### **Ergonomics Roundtable of Sacramento Presents:**

# What do the Feet Really Need to Make Standing Better at the Workplace?

## Patrick Carley, PT, MS

The topic will involve a comprehensive discussion on the anatomy, kinesiology, and biomechanic

considerations for all the important components for improving standing at the workplace. Force plate responses, balance reaction influences, motion control aspects, electrical muscle activity behaviors, subjective input, and pressure distribution elements will form this realistic basis for a better understanding. This discussion will provide a foundation for future decision making in reducing the associated costs and negative influences of prolonged standing. Considerations for what role different floor surfaces, postural aspects, and types of footwear will complete this comprehensive discussion.

#### MORE ABOUT OUR SPEAKER ...

Mr. Carley has been a full time associate professor in the doctorate in physical therapy (PT) program at American International College for the past 13 years and adjunct at Westfield State College in Biomechanics. He has been a PT for the past 30 years with a focus on the industrial aspects of rehabilitation. Prior to teaching full time, he started a PT clinic at HASBRO Games and was the on-site PT for the first 5 years. Being at the college gave him the opportunity to explore the problems related to workers standing on hard surfaces. Ever since then, he has been looking at the simple act of standing from several different directions, for example, using the neuro-com balance master force plate used to diagnose vestibular problems to see balance reactions with footwear, mats, and insoles (Occupational Health and Safety), responses to putting motion control insoles in the footwear of postal workers at a bulk mail center (Biomechanics), comparing different materials that would be more appropriate to occupational insoles (Journal of Podiatry), interaction of floor mats, concrete floors, and wooden floors on standing workers at Lenox Saw - Newel-Rubbermaid (abstract presented American Physical Therapy Association National Conference), EMG effects of newly designed combat boots for greater stability (presented International Society of Biomechanics - Zurich, Switzerland), subjective responses to insoles with different footwear and location of pain (abstract presented at American Physical Therapy Association National Conference), and most recently, the EMG study just completed that will be submitted for presentation and article for the American Society of Safety Engineers.

THANK YOU TO OUR SPONSOR...



#### MEGAcomfort with every step...™

The mission of MEGAComfort is to provide ergonomic anti-fatigue solutions, which will increase employee health, safety and wellbeing. To this end, our flagship product, the Personal Anti-Fatigue Mat Insole is a cost effective alternative and can provide for the selective relocation and replacement of standard anti-fatigue floor matting.

Dr. Kevan Orvitz CEO and Founder Direct Line 949.387.7159 drkevan@megacomfort.com

### WHERE:

State Compensation Insurance Fund 1st floor Conference Room 2275 Gateway Oaks Drive Sacramento, CA

Please at <u>www.ErgoRT.org</u> or e-mail Ann Pudoff at <u>apudoff@brsrisk.com</u> or phone (916) 293-9000.

