Textured insoles: do they have a role in the management of long term chronic foot conditions?

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Health-care professionals frequently prescribe footwear interventions to prevent and alleviate a variety of foot and lower-limb conditions in older people and long term chronic lower limb and foot conditions. Conventional understanding of the role of footwear interventions on balance performance and gait in long-term chronic conditions centres around their mechanical influence on optimizing kinematics, including foot position, proximal lower-limb alignment, providing shock attenuation, motion control, redistribution of plantar pressures, pain relief, or a combination of all. However, recent evidence supports that beneficial sensorimotor alterations may also be an important factor. This new insight is based on growing work exploring the effects of balance enhancing, textured and vibrating insoles on standing balance and walking. Footwear interventions that provide non-mechanical tactile stimulation, such as textured insoles, may alter the rate of discharge from mechanoreceptors or spatiotemporal firing patterns of populations of sensory afferents located in the feet of people with multiple sclerosis [1,2] and Parkinson’s disease [3]. The presentation will discuss the latest evidence relating to the use of textured insoles in long term chronic conditions and its potential use in everyday clinical practice as a low-cost means of improving postural stability in high falls-risk groups.

References