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The role of foot orthoses and flexible flatfoot

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Statement of the Problem: Flexible flatfoot is reported to affect up to 23% of the adult population and is a condition treated by many health professionals with an interest in the foot and ankle. Flexible flatfoot is characterised by a reduction in the height of the medial longitudinal arch along with eversion of the rearfoot. From a functional perspective, a flexible flatfoot does not provide support and stability of the foot during the propulsive phase of stance. Failing to achieve dynamic stabilisation compromises the counteraction and influence of ground reaction forces as well as the adaption to the supporting surface.

Methodology & Theoretical Orientation: Pain and symptoms proximally to the foot, an awareness of a flexible flatfoot and reports of fatigue are the typical triggers for patients to seek advice from a health professional. Whilst non-responsive and extreme cases can be treated surgically, flexible flatfoot is typically managed conservatively, with much of the

literature focused on prevention. Foot orthoses-which can range from a simple device, to a mild contoured device and a fully bespoke manufactured CAD-CAM device, are commonly used in flexible flatfoot. Although the mechanism of action of foot orthoses is continuously debated by many, it is suggested that they act to control kinematic foot function and reduce plantar pressures. However, in contrast, the therapeutic value of foot orthoses for flexible flatfoot are not well explored, and there is a need to direct studies that explore patient centred outcomes with focus on fatigue and pain.

Conclusion & Significance: Although the complexity of foot and lower limb function is acknowledged, and whilst foot orthoses for flexible flatfoot may be functionally beneficial, there is a need to focus on the therapeutic response.

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