

عنوان مقاله:

Design Evaluation in Novel Orthoses for Patients with Medial Knee Osteoarthritis

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خلاصه مقاله:

Osteoarthritis of the knee is a debilitating condition affecting increasing numbers of individuals each year. One option for treatment is orthotic knee braces, but a little independent reviews have taken place to date on their relative outcomes for users. This study therefore evaluates the efficacy of different types of knee orthoses (braces) with regard to key aspects of use, including gait parameters, mobility and levels of comfort and compliance in subjects presenting with osteoarthritis (OA) of the knee. The collated data is presented with relevant supporting literature and appropriate descriptions in relation to each knee orthosis type that was identified, within appropriate subsections with advantages and disadvantages appropriately allocated. An analysis of each brace as presented by the corresponding article is then described further in terms of the design and structure, user outcomes and assessment summaries. According to the study carried out in this paper, it is presented and proved that applying the use of knee braces can reduce the knee adduction moment (KAM), but the amount of reduction afforded varies between designs. All of the studies reported significant pain reduction and functional improvement with the use of a knee brace, although their effect on the knee joint range of motion vary. Knee braces long-term use depends upon high levels of comfort and patient compliance, and further studies need to be conducted on larger numbers of subjects over greater time periods to reflect the long-term outcomes accurately.

کلمات کلیدی:

Osteoarthritis, Knee, Adduction Moment, Gait, Knee Orthoses, Braces

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