Conclusion.– This study is the first to show an age effect on upper limb kinematics in healthy children. These data are used to establish reference standards in children.

Référence


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P147-e

ROBO-K project: A methodology based on users to define the functional and technical specifications


Keywords: Gait; Rehabilitation; Mechatronic; System; Active

Normal gait ability means independence, personal and social cost-efficiency, and a good quality of life. Our interdisciplinary team proposes a new mechatronic system for gait rehabilitation. The new system, developed in a national research development partnership project, covers many of the requirements of complete rehabilitation programs, by applying in practice the concept of rehabilitation through repetitively–variability–intensity–reality. The new mechatronic system assists the user while walking, by means of a dedicated body weight supporting system, and provides independence in a controlled space, due to a special system of suspended beams and sensitive engines. The system allows its user to train self-awareness, distributive attention, active self-decision making, along with gait, in real-like environment, enriched in stimuli. The system can control the trajectory and the movements of the patient, or it can follow the patient, giving the precise degree of assistance needed, in real time. The system is designed to stimulate the user’s motivation and active involvement in the rehabilitation process, and to prepare the patient for real life situations, reducing the time necessary for a complete rehabilitation and for the optimal reinsertion into community, with all the personal and social benefits.

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A new approach to gait rehabilitation

M. Berteau∗∗, L.L. Seiciu∗∗, A. Iliescu∗∗, I. Ciobanu∗∗

∗∗ Elias University Hospital, Bucharest

Keywords: Gait; Rehabilitation; Mechatronic; System; Active

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