

Human movement is essential for many daily-life activities. In rehabilitation medicine, objective and accurate assessment of motor disorders and movement performance is important to support clinical-decision making. However, in clinical practice, applications of laboratory-based movement analysis systems are often limited due to complexity and the lack of equipment and gait laboratories. Recently, ambulatory movement analysis systems have become available that can measure movement free of laboratory restrictions. This thesis aims to evaluate the feasibility and quality of an inertial and magnetic measurement system (IMMS) and an instrumented force shoe (IFS) in spasticity tests and gait analysis in children with cerebral palsy and adults with osteoarthritis of the knee.

Ambulatory movement analysis systems in clinical motor function assessment

Applications of inertial sensors and an instrumented force shoe

Ambulatory movement analysis systems in clinical motor function assessment

Josien van den Noort



IMPROVE TO MOVE
VU University Research Institute MOVE is a collaboration between researchers of the Faculty of Human Movement Sciences, VU University Medical Center and the Academic Centre for Dentistry Amsterdam. The research of MOVE is related to human movement and health, with an emphasis on prevention and recovery of injury and disorders of the (neuro-)musculoskeletal system, on optimal recovery of tissue and function, and on motor control and coordination. MOVE aims at fundamental, multidisciplinary and translational research, especially in the fields of (oral) regenerative medicine, rehabilitation and sports.
www.move.vu.nl

ISBN: 978-90-8659-565-5



Josien van den Noort