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A marker-less monitoring system for Movement Analysis of Infants using
Video Sequences
Video observation of changes in voluntary movement of a baby with
cerebral palsy

Koji Shimatani, RPT, PhD

Prefectural University of Hiroshima - Faculty of Health and Welfare
Department of Physical Therapy

ABSTRACT OF THE TALK

A marker-less motion measurement and analysis system for infants is presented. This system uses a normal camera and does not require markers. It calculates eight types of evaluation indices related to the movement of an infant such as “amount of body motion” and “activity of body” from binary images that are extracted from video images after subtracting the background. Thus, medical doctors can intuitively understand the movements of infants without long-term observations, and this may be helpful in supporting their diagnoses and detecting disabilities and diseases in the early stages. The distinctive feature of this system is that the movements of infants can be measured without using any markers for motion capture and thus it is expected that the natural and inherent tendencies of infants can be analyzed and evaluated.