Biomechanical analysis of abnormal human gait: a review

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Abstract

Pathokinesiological and biomechanical analysis is needed in clinical diagnostics especially in assessing of movement and coordination in walking, standing, during daily activities and so on. Some diseases like stroke, neurological and trauma may cause serious muscle-skeleton dysfunctions or motion control problems during daily activities, movements, walking. Rehabilitation can increase muscle strength, can increase joint movement but it is very important to improve the lost or decreased ability of coordinate and safe movement during ordinary daily activities – balance during standing, balance during walking, posture balance, coordinated walking. It won’t be possible if accurate kinesiological analysis of human gait is not done.

Keywords: Abnormal gait, walking and balance control, rehabilitation, motor control and learning