

ABSTRACT

Thesis name: The evaluating of the change of walking quality in dancers in comparison with the normal population

Thesis goal: This thesis deals with effect of long-term ballet dance on kinematic parameters of gait.

The theoretical part includes basic characteristics of gait cycle and kinesiological and biomechanical findings of ballet movement and its compensatory mechanisms in musculoskeletal system.

There is analyzed angular parameters of gait cycle in ballet dancers in performance of walking in the experimental part. The results will show if the many-years intensive training of dance affects the alignment of particular joints of the body during human walk.

Method: Kinematic analysis by Qualisys system allowing automatic processing of record obtained with infrared cameras. Qualisys uses its own high-frequency cameras for precise movement tracking of the measured object using active or passive markers.

Gathered data from device were processed and statically evaluated with Microsoft Office Excel.

Keywords: gait, bipedal locomotion, dance, gait analysis, gait of dancers, ballet, kinematics analysis