Posters

P333-e
Changes in gait pattern during dual task using smartphones
C. Kim*, J. Song, S. Jeon, G. Lee*
Kyungnam University, Changwon-si
*Corresponding author.

Keywords: Gait; Dual task; Attention; Smartphone
Introduction.– Smartphones have been deeply involved in lives, and various tasks are performed simultaneously on smartphones. We investigated gait pattern changes in performing tasks simultaneously using smartphones.
Material and methods.– Three tasks were performed by 26 healthy adults. In the first, participants were directed to walk without using smartphones. In the second, they were required to walk while finding applications. Lastly, in addition to performing the second task, they were asked to listen to questions and answer them on their smartphone. Spatiotemporal variables of gait and degree of lateral deviation during walking were measured.
Results.– The results showed that there was a significant difference between the first and second tasks, as well as between the first and third in all variables (P<0.05). In particular, gait velocity decreased by 33.49% in the second and 41.69% in the third compared to the first, the degree of deviation increased by 119.18% in the second and 122.67% in the third in comparison to the first.
Discussion.– It was determined that changes in gait, appear when walking while using smartphones in comparison to walking without smartphones. These changes in the gait pattern may contribute to an increase in the risk of accidents.
http://dx.doi.org/10.1016/j.rehab.2014.03.608

P334-e
Interest of postural control evaluation after ACL hamstring tendon reconstruction: A prospective monocentric study
G. Tondeur*, L. Havel*, A. Bertani*, L. Mathieu*, P. Chaudier*, F. Rongiers*, R. Goldet*
* HIA Desgenettes, Service de Médecine Physique et de Réadaptation, Lyon, France
* Corresponding author.

Keywords: Anterior cruciate ligament reconstruction; Knee; Postural control; Posturography
Objective.– The patients’ monitoring seems to be inadequate with regard to the rehabilitation goals after an anterior cruciate ligament (ACL) reconstruction. We assessed the interest in postural balance evaluation after such a surgery.
Methods.– A preliminary prospective matched study allowed us evaluating the movements of the centre of pressure and the Romberg’s coefficients during static and dynamic stances using a SATTEL™ stabilometric platform in 16 patients at a mean 11 months after hamstring tendon ACL reconstruction.
Results.– We found the distances covered by the centre of pressure to be significantly increased in the operated group during unilateral stance on the healthy knee with eyes closed (P=0.04) and a significantly decreased Romberg’s coefficient in dynamic stance in the frontal plane (P<0.01).
Discussion.– The posturographic evaluation showed an alteration in postural control during some stances including when it comes to the healthy knee. Thus, this device would be interesting in association with the muscular isokinetic strength and anterior laxity knee follow-up to improve rehabilitation after an ACL reconstruction.
http://dx.doi.org/10.1016/j.rehab.2014.03.609

P335-e
Presenting Helios Fitness Index (Hel.F.I.) for evaluating Greek women’s performance compared to German Esslinger Fitness Index (E.F.I.)
Y. Dionysioutis*, G. Skarantavos*, G. Lyritis*, P. Papageopoulos*
* 1st Department of Orthopaedics, General University Hospital “ATTIKON”, Athens, Greece
* Rehabilitation Center “Aghios Loukas”, Trikala, Greece, Chaidari, Athens, Greece
* Hellenic Osteoporosis Foundation (HELIOS), Greece
* Corresponding author.

Keywords: Jumping mechanography; Osteoporosis; Power; Force
Introduction.– In the study of muscle performance, movement has to be described in terms of velocity and acceleration. The purpose of this study was to analyze parameters of locomotor system and to compare Greek Helios Fitness Index (Hel.F.I) with German Esslinger Fitness Index (E.F.I).
Methods.– Healthy Greek women aged 20–79 years (n=176) divided into 6 groups performed jumping mechanography (Leonardo platform, Novotec, Ger-