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CHANGES IN POSTURE, BALANCE AND STRENGTH PARAMETERS FOLLOWING TRAINING WITH HUBER® DEVICE IN HEALTHY SUBJECTS

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PURPOSE The aim of this study was to analyse the effects of training performed on a Huber® device by LPG Systems. This device is designed to improve posture, postural control and muscular function but until now no evaluation of these parameters following a training program has been performed

MATERIAL AND METHODS Twelve healthy adults took part in a two-month training program, three times a week on a rehabilitation device involving the whole body. Instrumental assessment of posture (Spinal Mouse®), postural control (Satel platform®) and muscular function (Cybex Norm®) was performed before and after training. The Bouchard questionnaire allowed us to split the population into a sedentary and active groups.

RESULTS For postural control, a diminution of the length of CP displacement in eyes closed on foam condition and in the maximal forward inclination condition were observed, so that a trend to more forward CP position for the maximal backward inclination condition (p<0.01) and the reference position (ns).

For the muscular function, we observed an improved knee extension in the sedentary group (p<0.05) and a functional improvement of muscle fatigability for all the subjects.

For posture, no change was observed in thoracic and lumbar curvations.

CONCLUSION These results suggested that postural control and muscular function were sensitive to training on such a rehabilitation device. It seems likely that training on this device would better suit a population with an initial low physical activity level. For healthy active or trained subjects, greater effects could be obtained by increasing exercise intensity.