15 LET'S ROCKIlkka J Väänänen *Lahti University of Applied Sciences, Lahti, Finland*

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The purpose of this presentation is to introduce the scientific background of registered rocking chair training programme. A three-step study was carried out. In the first part, the muscle activity (EMG) level of rectus abdominis was quantified while rocking in a rocking chair. After this, the training effect of the 6-week rocking compared with the traditional resistance training was clarified. In the third part, the changes of the volume of the lower extremity after rocking were compared. Eight subjects participated in the first and second part of the study. The EMG data were collected while the subjects were rocking in a rocking chair. The mean EMG activity recorded during rocking was compared with the maximum EMG level during maximal voluntary isometric contraction. After this, five men rock daily 30 min in a rocking chair and three had resistance abdominal muscle strength training session twice a week. Sit-up test was used to evaluate the training effect. In the third part of this study, nine subjects rocked 30 min and sat 30 min in an upright chair separate days in random order. The volume measurement of one leg was done before and after both sitting session using the water displacement volumetry method. The results are presented as means (SE). Statistical analysis was performed using the Statistical Package for Social Sciences. The differences between the measurements were assessed using a paired and between groups non-paired t test. A priori p value <0.05 was chosen to indicate statistical significance.