

Abstract: The aim of this study is to evaluate the effect of dynamic stabilizing strategy on handgrip and pinchgrip strength. Exercise utilized in this study was based on rehabilitative approach called Dynamic Neuromuscular Stabilization (DNS) – a developmental kinesiology approach. The exercise program consisted of four primal developmental positions (3½ month supine position, oblique sitting position with support on forearm, position on all fours, and the “bear” position). A study file consisted of ten females who were instructed in basic scheme of DNS exercise. They were instructed to exercise at home five times weekly for a 6-weeks period. One exercise lesson took about thirty minutes. Both handgrip and pinchgrip strength was measured using the digital dynamometer CITEC CT 3001 recording maximum voluntary isometric contraction (MVIC). Three-pinch grip strength and fist grip strength was measured for both upper extremities. Fist grip strength was measured in three positions of forearm (pronation, supination and neutral position). Overall eight variables (for each extremity, grip form and position of the forearm) measured before and after exercise program were compared using the paired t-test. Significant increase in muscle strength ($p < 0,05$) was identified for all eight variables after a 6 weeks exercise period. No influence of forearm position on „fist grip“ strength was observed.