

EFFECT OF TEST (BODY) POSITIONS ON ELBOW FLEXOR MUSCLE STRENGTH AMONG HEALTHY SUBJECTS

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ABSTRACT

Background: Strength is a muscle's capacity to exert maximal effort or resist maximal opposing force. Muscle strength has been a subject of measurement for many investigators including physiotherapists with diverse techniques employed. The primary aim of this study was to find the relationship between test positions (trunk position) and the elbow flexor muscle strength. *Methods:* A total of 300 subjects (males=195, females=105) voluntarily participated in the study. The elbow flexor muscle strength was measured using cable tensiometre while the comfort level perceived in each position was evaluated using the modified Borg scale. *Results:* The result revealed that subjects had a significantly greater ($p < 0.001$) elbow flexor strength when the trunk-hip angle position was 120° in both adult male and female subjects. Significantly positive association ($r = 0.87$, $p = 0.01$) was found between the muscle strength produced and the comfort intensity level perceived at different body position. *Conclusion:* The major finding of the study indicated relationship exists between elbow flexor muscle strength and different test (body) positions. It also exists between elbow flexor muscle strength and the perceived comfort level at different test positions. The findings are valuable in evaluation and rehabilitation training of arm/fore-arm injured athletes or patients. It is recommended that during muscle strength testing or strengthening programme, significant consideration should be given to the test (body) position and the degree of comfort derived by the subject or patient.

Keywords: Muscle strength, elbow flexor, comfort intensity level, test positions, rehabilitation.