

Repetition Differences between Three Curl-Up Tests for Abdominal Strength

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ABSTRACT

Curl-up tests are common for assessing abdominal strength and endurance, however, little has been explored on the differences in repetition outcomes of different versions of these tests. **PURPOSE:** To identify differences in repetitions between three commonly used curl-up tests for abdominal strength and endurance. **METHODS:** Thirty-six participants (27.5±8.1 yrs, 167.1±9.5 cm, 80.2±23.4 kg, 28.3±10.3% BF) were measured for upper body anthropometrics and repetitions from the FITNESSGRAM curl-up, a military curl-up, and patella curl-ups. Repeated measures ANOVA was used to identify differences in repetitions and the Bonferroni technique was used with pairwise comparisons. Alpha was set at .05 for all tests. **RESULTS:** There was no significant interaction of sex and curl-up, $F_{(2, 33)} = 1.05, p = .58$. There was a significant difference in repetitions between military and patella ($p = .001$) when sex was combined, but not among any of the other comparisons. There was a significant correlation between abdominal circumference and curl-ups for the military and patella tests ($r_{(34)} = -.38, p = .021$ and $r_{(34)} = -.37, p = .024$, respectively) as well as for arm length and the FITNESSGRAM curl up ($r_{(34)} = .40, p = .016$). **CONCLUSION:** Findings indicate a significant difference between the military and patella curl up test, suggesting that these two tests should not be interchanged. Furthermore, it may be that those with longer arms may have an advantage with the FITNESSGRAM curl-ups while greater abdominal circumferences may contribute to fewer repetitions with the military and patella tests.