

Can Between-the-Legs Front Throw Distance be Predicted from Overhead Back Throw Distance?

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Purpose: The overhead back throw (OHB) and between-the-legs front throw (BLF) are commonly used in physical fitness assessments. Due to the similarity between the two techniques, we hypothesize that a strong relationship exists between measured distances in the two activities. The purpose of this study is to assess the strength of the relationship between distances in OHB and BLF activities. **Methods:** Seven male and eighteen female undergraduate students participated in the study. Participants performed three OHB and three BLF trials, with the goal of achieving maximum distance. Males threw a 7.26 kg indoor shot, and females threw a 4.0 kg indoor shot for the OHB and BLF trials. For each participant, the best performance (based on largest measured distance) was used for further analysis. In order to determine the extent of the relationship between the two measures, the Pearson product moment correlation coefficient “r” was computed. **Results:** For males, OHB distances ranged from 7.3 m to 9.6 m, while BLF distances ranged from 6.5 m to 10.3 m. For females, OHB distances ranged from 4.4 m to 11.1 m, and BLF distances ranged from 5.0 m to 11.2 m. The coefficient of determination between OHB distance and BLF distance was $R^2 = 0.73$ for males and $R^2 = 0.65$ for females. Strong correlations were found between the measures in the study; for males, Pearson's $r = 0.86$ and for females Pearson's $r = 0.80$. **Conclusion:** Due to the strong relationship between the OHB and BLF measures, the authors recommend that if practitioners do not have enough time to perform both OHB and BLF activities during a testing session, using either technique should provide a good measure of athletic power.