

## Physical and Strength Characteristics of College Lacrosse Players in Relation to Player Role

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Although lacrosse continues to grow in popularity and participation, there is little research on the physical and physiological characteristics of these athletes. Understanding these characteristics with reference to the athletes' roles in the sport can help guide the design of specific training regimens. **PURPOSE:** To measure body size, adiposity, and strength in a collegiate lacrosse team engaged in a pre-season training regimen in order to help define these characteristics, especially with respect to the on-field role of the athletes. **METHODS:** Twenty male lacrosse players on a Division III varsity team participated in this study. Ten played a principally offensive role (O) and ten primarily a defensive role (D). Upper and lower body strength were assessed by measuring the 1-repetition maximum during bench press and squat exercise, prior to and following a 12-week conditioning program designed and supervised by an experienced strength and conditioning coach. Body mass, height, and adiposity were measured at the conclusion of the training program. Comparison of measures between O and D athletes used the t-statistic. **RESULTS:** No significant differences between O and D athletes were found ( $p$  values  $> 0.15$ .) In this small sample, defensive players as a group were heavier (D=86.7 Kg; O = 83.5 Kg), taller (D = 178.5 cm; O = 177.3 cm), had greater adiposity (D = 18.1 % fat; O = 17.5% fat) and greater lean mass (D = 70.7 Kg; O = 68.3 Kg) than their offensive counterparts. Defensive players were stronger both before (D squat = 321 lb; O squat = 296 lb. D bench = 231 lb; O bench = 213 lb) and after (D squat = 354 lb; O squat = 318 lb. D bench = 242 lb; O bench = 221 lb) the training regimen. **CONCLUSION:** There were consistent but statistically insignificant differences in physical and strength characteristics between O and D player roles among varsity collegiate lacrosse players in this study. Additional research with a larger sample size, players from other divisions, and measurement of physiological characteristics would further define these athletes and their training needs.