

## **Association of Athletic Testing Results from NBA Draft Combine to Future Performance of Players**

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The National Basketball Association (NBA) Draft Combine is held each year before the NBA draft to measure athletic abilities and basketball skills of pre-draft basketball players. Although the combine provides the NBA teams with the opportunities to evaluate pre-draft players for the upcoming NBA draft, it is not known whether the athletic abilities measured in the combine are associated with future performance of players in the NBA. **PURPOSE:** To examine the relationships of athletic testing results from the NBA Draft Combine to future performance of players in the NBA. **METHODS:** Data were collected for pre-draft basketball players who participated in the 2013 NBA Draft Combine. The athletic testing results analyzed in this study included: percent body fat (%), three-quarter sprint time (sec), lane agility time (sec), and maximal vertical jump (in.). Performance of the players in the 2013-14 NBA season (i.e., their first NBA season) was assessed based on offensive win shares (OWS) and defensive win shares (DWS), estimates of the numbers of wins contributed by a player due to his offense and defense, respectively, along with other performance measures. We compared the athletic testing results with the first-year performance in the NBA, using correlation analysis. **RESULTS:** There was a significant, negative relationship between percent body fat and DWS ( $r = -0.468$ ,  $p < 0.05$ ). Lane agility time was negatively correlated with steal percentage ( $r = -0.589$ ,  $p < 0.05$ ). Despite not being statistically significant, maximal vertical jump ( $r = 0.434$ ,  $p = 0.093$ ) had a medium-effect relationship with DWS. Interestingly, maximum vertical jump was inversely related to offensive rebound percentage ( $r = -0.511$ ,  $p < 0.05$ ) and block shot percentage ( $r = -0.593$ ,  $p < 0.05$ ). None of the athletic testing variables were significantly associated with the first-year performance in the NBA. **CONCLUSION:** Our study indicates that percent body fat and jumping ability may be important to look at when evaluating a player's potential to be a good defensive player. Lateral quickness appears to be a key measurement for a player's ability to steal the ball. In terms of grabbing offensive rebounds and blocking shots, not jumping ability but other factors, such as timing and positioning, may be more crucial.