

A dark silhouette of a person in a running pose, centered against a blue background. The person is captured mid-stride, with one leg forward and arms pumping. The background is a gradient of blue, with a lighter area on the left side that looks like a draped fabric.

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The Relationship Between Maturation and Athletic Motor Skills in Youth Males

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Introduction. The influence of maturation on talent identification and development is often overlooked. The purpose of this study was to examine the relationship between maturity offset and athletic motor skills and differences between pre-PHV, circa-PHV and post-PHV males.

Methods. One hundred boys age 12.9 to 14.9 with a maturity offset of -1.96 to 2.27 performed a 10 meter sprint (10m), an isometric mid-thigh pull (IMTP), a bilateral (BHJ), right leg (RHJ) and left leg (LHJ) horizontal jump and a countermovement jump (CMJ). Relative values for horizontal jumps and IMTP were obtained by dividing by leg length and weight, respectively. **Results.**

Maturity had a significant but small relationship with 10m, BHJ, RHJ, LHJ and CMJ ($r \approx 0.30$) and a large relationship with IMTP ($r = 0.70$). Correlations between relative BHJ, RHJ, LHJ and IMTP were trivial ($r < 0.10$). When comparing between groups, effect sizes ranged from 0.11 to 1.99 for absolute measures but only 0.24 to 0.37 for relative measures. **Discussion** Lower body neuromuscular strength has a stronger relationship to maturity status than measures of lower body power while maturational differences are reduced with relative scores. **Take home message** Relative scores will reduce the influence of maturation on performance.

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