

A dark silhouette of a person in a running pose, centered in the background against a blue gradient. The person is captured mid-stride, with one leg forward and arms pumping. The background is a solid blue color with a subtle gradient, and there is a vertical crease or shadow on the left side.

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Does maturation influence functional performance in youth males?

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Introduction Understanding the role biological maturity has on athletic motor skills may have implications for athlete development programmes. The purpose of this study was to identify the influence maturation has on functional performance in youth males. **Methods** A cross sectional sample of 97 youth males (Age range 13.2 to 15.7 years old with a maturity offset of -1.0 to 2.6 years) were allocated into either pre, circa, or post PHV maturation groups. Participants performed 20m sprint, unilateral horizontal jump, and 10s bilateral tuck jump (TJ) assessments. **Results** Significant group differences ($p < 0.01$) revealed increased maturation status positively influenced speed performances (ES = 0.64 to 1.03) but not jump performances. Associations between speed performances and horizontal jump performances were large to very large ($r = -0.67$ to -0.74). **Discussion** Maturation status appears to influence speed especially over 10m and 20m but not initial acceleration or jump capability, despite the strong associations between speed and horizontal jump performances. **Take home message** It appears there is a need to consider biological maturity when determining speed characteristics in male youth.

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Preliminary data on interoceptive sensibility in exercising, overweight and obese subjects.

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Interoception (IC) is mostly self-awareness. IC is a little sense constantly monitoring how we feel inside. It can go awry, potentially distorting our body image. During time IC has been associated to a number of behaviours varying from eating disorders, chronic fatigue syndrome and, in exercising subjects, pacing. To reach preliminary insights on this elusive aspect, a data collection was carried out using the Heartbeat Perception Task (HPT) on three subsamples: sports practicing subjects (SP, or 17 sportsmen and 16 sportswomen aged 23,6±8.5 years); 10 overweight (OV, 25,029,9) males and 15 females (aged 44.8±3,3 years); 13 obese (OB, BMI>30,0) males and 12 females, aged 30.4±6,5. For HBT test significant differences emerged among sub-groups. SP and OV did not show gender differences, while high scores (0.85±0.11) and moderate scores (0.67±0.79) were obtained by SP and OV, respectively. In OB significant gender differences and low scores (0.44±0.10) were found and the latter in 96% of the subjects, mostly males. Results confirm relevant literature as high BMI values correspond to low HBT scores, with the lowest scores reserved solely for OB. SP show a better interoceptive capacity. To reprogram IC contemplative practices, yoga, thai chi, mindfulness training, and graded exercise therapy are suggested.

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