

# PERFORMANCE EFFECTS OF 10 WEEKS SUPPLEMENTATION WITH A PURPORTED TESTOSTERONE-BOOSTING SUPPLEMENT

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## Introduction

Anabolic hormones are recognized as the premier compound to facilitate improvements in exercise performance. As an alternative to hormone use, testosterone-boosting supplements (TB) may be consumed to increase testosterone for performance enhancement. While these supplements may fail to augment testosterone in eugonadal men, they may still exert an ergogenic effect.

## Purpose

Thus, the purpose of this investigation was to examine the effects of a commercially produced TB on maximal strength, power, and anaerobic power in healthy, active individuals within the context of a periodized resistance training program.

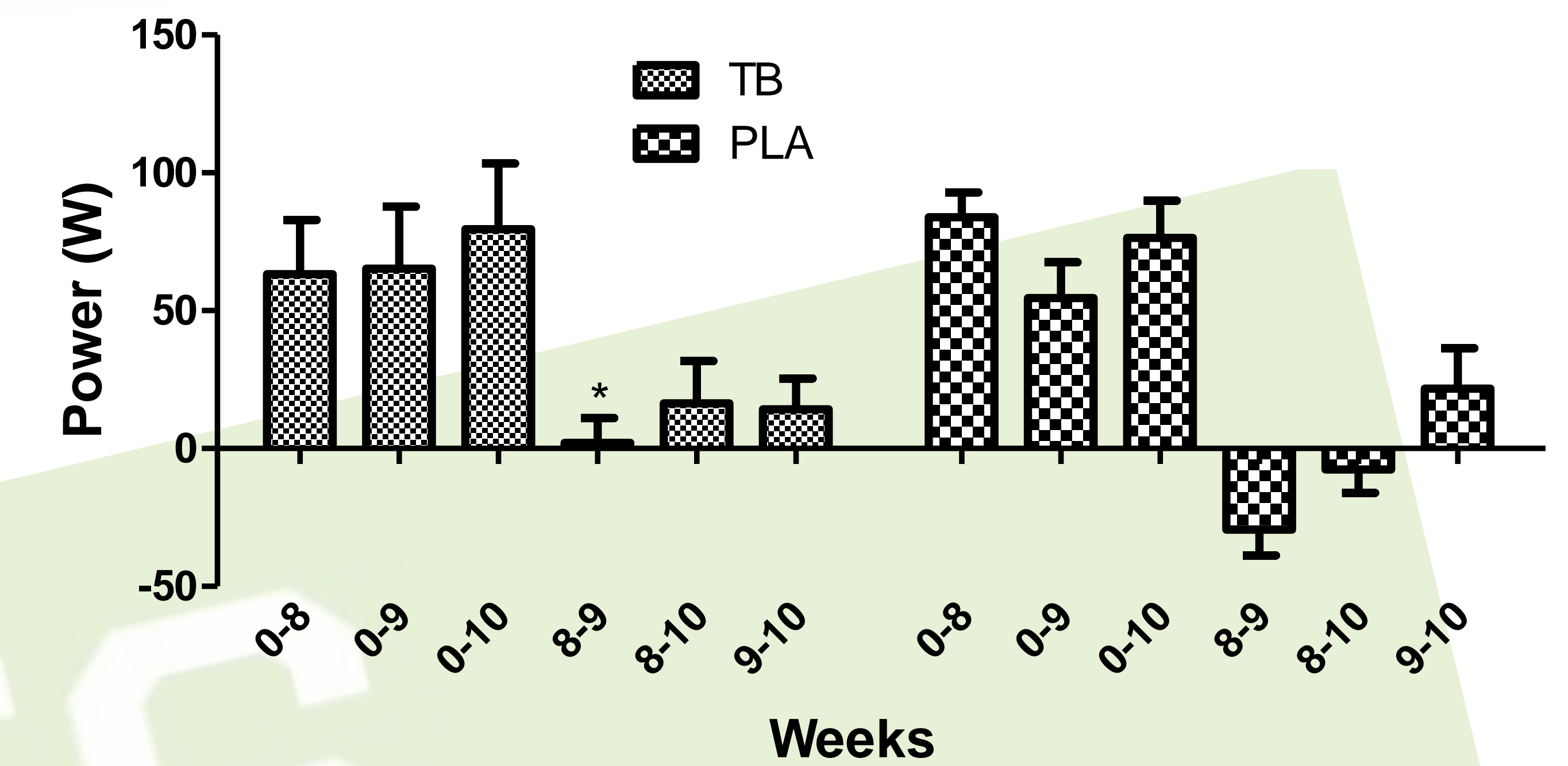
## Methods

Eighteen trained men ( $25.8 \pm 4.3y$ ;  $176.7 \pm 5.0cm$ ;  $80.4 \pm 12.0kg$ ) completed a double-blind, placebo-controlled study consisting of 10 total weeks resistance training. The TB group supplemented daily with 2 doses of a multi-ingredient TB, and the placebo (PLA) group supplemented with an equal volume, visually identical placebo in the same manner. The first 8 weeks consisted of daily undulating periodized resistance training 3 days per week, focusing on either muscular hypertrophy, power, or strength. The final 2 weeks featured an overreach and taper phase. Tests consisted of 1RM strength of the bench press and leg press, a 30s Wingate, bench press peak power and velocity, and vertical jump height, peak power, and peak velocity.

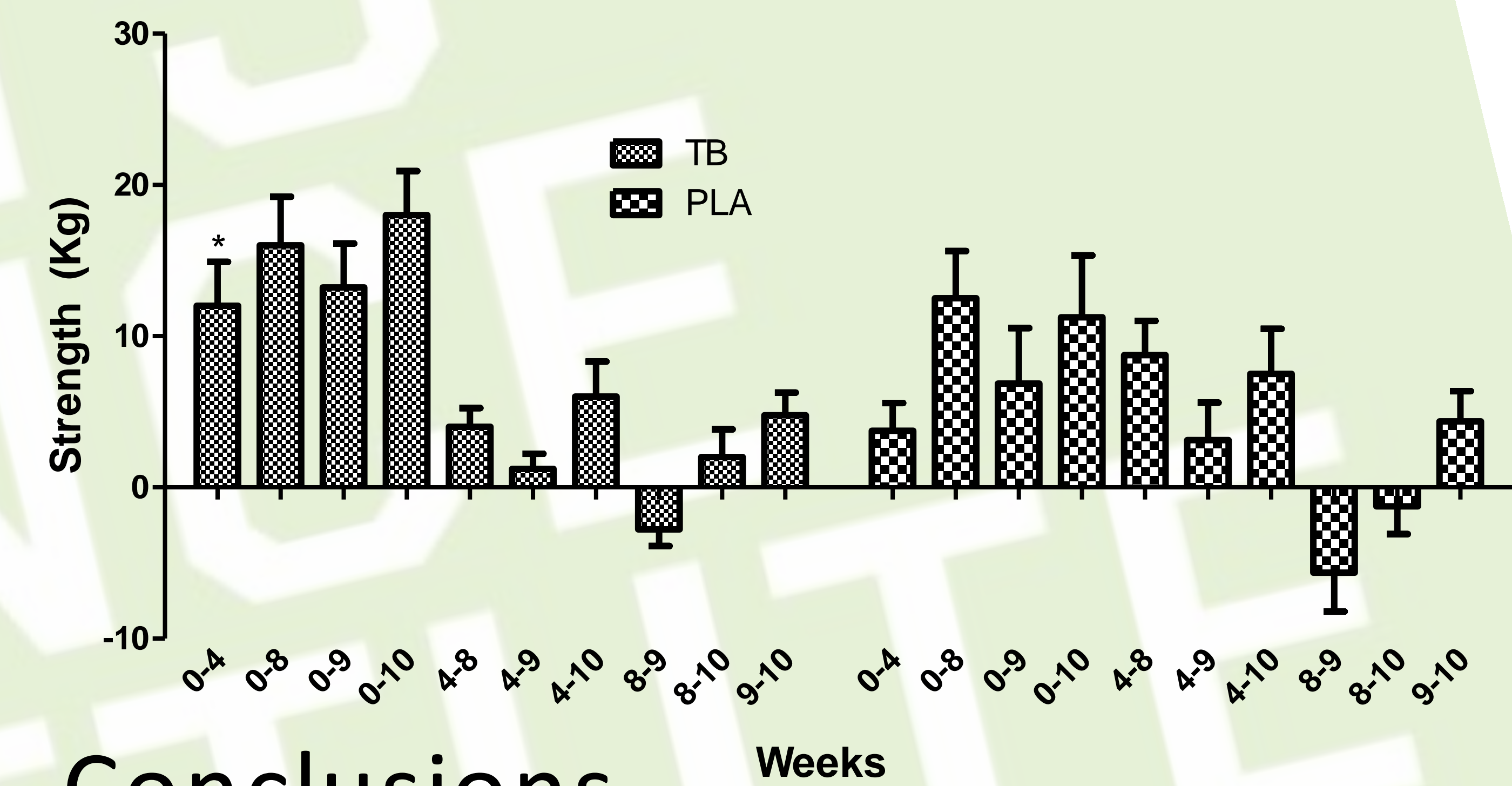
## Results

No differences existed between groups at baseline. Independent T-tests revealed a significant ( $p < 0.05$ ) difference in delta values from week 8 to 9 for bench press peak power. Wherein, PLA decreased (-29.4 W) and TB remained the same (+2.1 W). This corresponded with a significant ( $p < 0.05$ ) difference in bench press peak velocity for the same time period. However, the changes were divergent in this case (TB: +0.06 m/s; PLA: -0.05 m/s). A significant ( $p < 0.05$ ) difference was found for leg press 1RM from week 4 to 9 (TB: +31.7 kg; PLA: +13.1 kg), and trends were observed from week 4 to 10 ( $p = 0.054$ ; TB: +40.2 kg; PLA: +21.9 kg) and from week 8 to 9 ( $p = 0.093$ ; TB: +10.6 kg; PLA: -0.3 kg). A significant ( $p < 0.05$ ) effect was observed for bench press 1RM from week 0 to 4 (TB: +5.5 kg; PLA: +1.7 kg), which seemed to reverse from week 4 to week 8 ( $p = 0.07$ ; TB: +1.8 kg; PLA: +4.0 kg). No other significant interactions were observed.

Changes in Bench Press Power



Changes in Bench Press Strength (Kg)



## Conclusions

A TB supplement may be efficacious for increasing maximal strength and preventing the performance decrements associated with overreaching.

## References

Willoughby DS, Leutholtz B: D-aspartic acid supplementation combined with 28 days of heavy resistance training has no effect on body composition, muscle strength, and serum hormones associated with the hypothalamo-pituitary-gonadal axis in resistance-trained men. *Nutrition research* 2013, 33:803-810.

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Changes in Leg Press Strength

