

A Case Study on The effects of Whey Protein Supplement on Strength Increase

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Purpose

The purpose of this study is to measure the effect of whey protein supplementation on muscular strength, in order to evaluate the usefulness of whey protein supplements in strength development.

History

Clinicians and athletes are always looking for newer ways to improve athletic performances. Researchers in the past have linked muscular strength with overall performance. This phenomenon has led to different training programs, diets, and supplementations to achieve greater increases in strength.

Products



Methodology

Twenty full-time Manchester University students volunteered for participation in this study. Prior to their participation in the study, each individual had to complete and sign an informed consent form that was provided. Participants were chosen by the following conditions: must be in the age range of 18-25 years old, good health, a moderate activity and resistance training level. The selected students were evenly distributed with 10 subjects in two groups by using a random number generator. Group A took a protein supplement without the knowledge of being in the actual test group post resistance training. Group B took a Vitamin C supplement without the knowledge of being in the placebo group post resistance training. The supplements were ingested in the form of a shake with the supplement powder being mixed with water. Both supplements were safe and found on the shelf of a healthcare store as Emergen-C and Muscle Tech Premium Whey Protein.

Groups A and B underwent a simplified, identical upper body workout that was to be completed three times a week on nonconsecutive days in the presence of an examiner for four weeks. The supplementation was administered in a shake form within fifteen minutes of cessation of the resistance training. The shake was pre-mixed and not labeled to mask what group the subject was participating in. The first workout was conducted before starting the four week exercise plan to take a baseline of one rep max, bicep girth, and to familiarize the participants on what exercises were going to be used in the current study. On the last workout day, the same measurements were taken and compared to the participant's baseline. A final measurement workout was completed after termination of the four week resistance training regimen to collect data in comparison to the baseline previously recorded.

Results

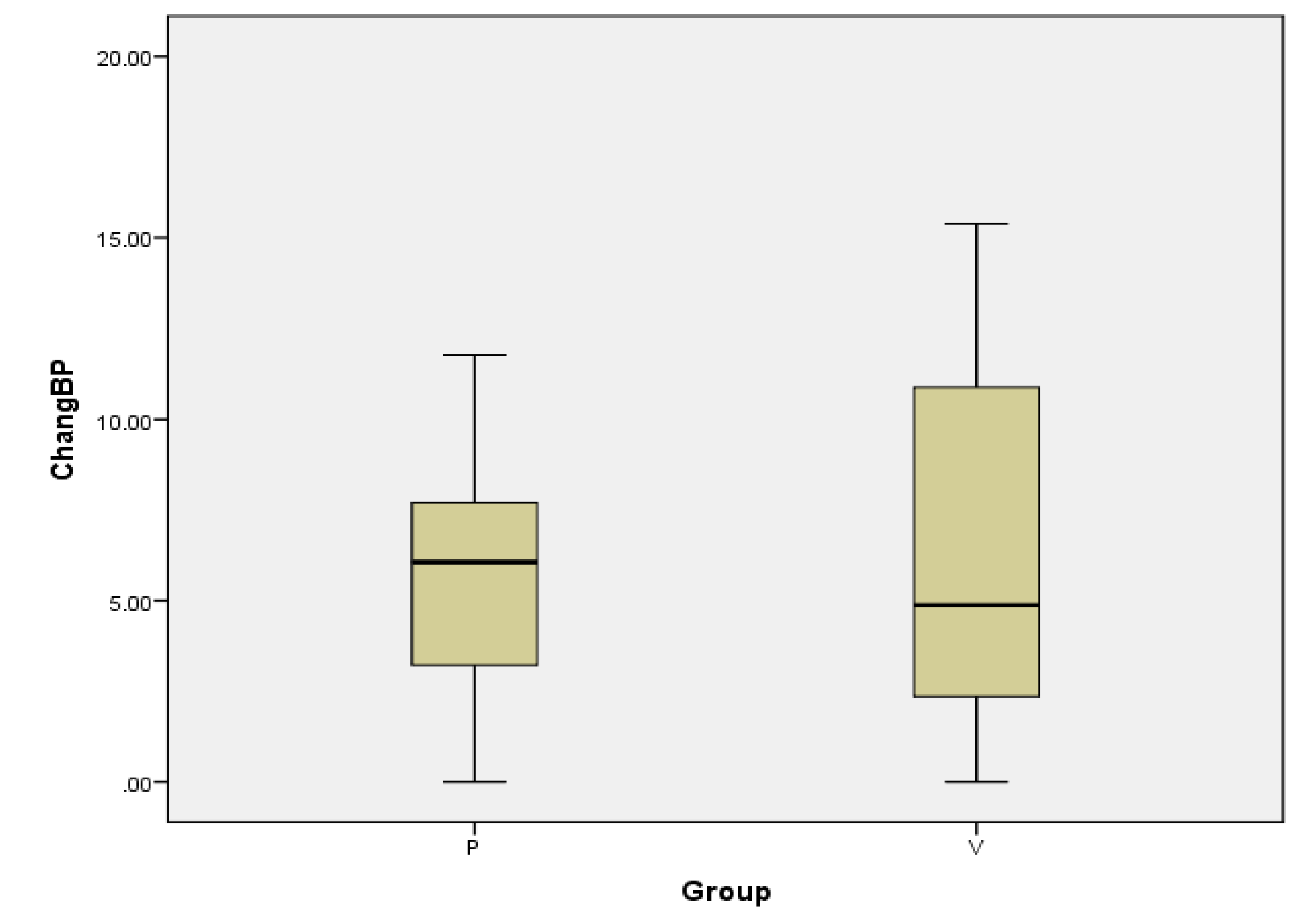


Figure 1. Box Plot representation of the change in bench press according to specific group.

Conclusion

According to the results, participants who take a whey protein supplement post workout will not have a significant effect on their strength gains over a four week time frame. Evidence from this study suggest that four weeks is a substantial amount of time to see effects on strength gains. However, the strength gains were seen in eighty percent of the participants regardless of which group they were in.