

# Good similarities and differences article review example



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## Summary

### Introduction

The two articles focus on researches that were conducted so as to get some viable findings that involved analyzing the effects of amino acids and carbohydrates of muscular adaptations under different circumstances.

### Summary

In the research by Ferreira et al. (2014), the most beneficial strategy of improving the performance of muscles is through the intake of nutrients, especially carbohydrates and protein during peri-exercise. Several methods and materials were used before coming to this conclusion. The methods used were supplementation protocol, experimentation approach and pretesting analysis. Resistance exercise protocol, muscle biopsies and blood sampling were highly employed in the experiments. Other methods applied included statistical analysis, cell extraction and total protein content, mammalian target of rapamycin and 4E-BP1 analysis and insulin receptor substrate 1, Akt, and p70S6K analysis. The results obtained from the experiments were descriptive statistics, Insulin and serum glucose, skeletal muscle phosphoproteins. This investigation was conducted in order to determine the effects that 'peri-exercise co-ingestion' of CHO and BCAA has on the phosphorylation status of intermediates. The findings demonstrated an effect of CHO supplementation on Akt phosphorylation that was significant.

Bird et al. (2006) analyzes the combined and independent effects of liquid carbohydrates on muscular and hormonal adaptations. This is due to resistances training in men who are not trained. The resistance exercise stimulates changes in the rate of muscle protein turnover, which leads to an

increase in protein degradation and protein synthesis. The methods used in this case were dietary control, subjects, experimental design, body composition, muscular strength measures, nutritive intervention, biochemical analysis and blood collection, resistance training protocol, 3-methylhistidine analysis and urine collection, statistical analysis and histochemical analysis and muscle biopsy. The results obtained related to body composition, Muscle fiber CSA, biochemical responses, muscular strength. In conclusion, the results indicated that the ingestion of CHO+EAA enhances hormonal and muscular adaptation. This was after 12 weeks progressive resistance training. They provide a connection between the acute changes in the path of adaptation to the adaptations of resistance training that are chronic.

According to Ferreira et al. (2014), experiments were conducted on twenty-seven males while in the examination of chronic alteration of the acute hormonal response thirty-two untrained young men performed the training. In Bird et al. (2006), BCAA and Carbohydrates were ingested in the skeleton muscles. In the article on effects of carbohydrates on hormonal adaptations a combination of essential amino acids (EAA) and carbohydrates (CHO) were used (Bird et al., 2006). In the article by Ferreira et al. (2014), the combination of CHO+BCAA as supplements led to an increase in IRS-1 while in the research by Bird et al. (2006), the intake of carbohydrates plus essential amino acids increases the response of anabolic.

The similarity from both research articles is that blood samples were used as part of the experiment during the investigation. However in the Ferreira et al. (2014) research, the blood samples were obtained before ingestion of the

supplement. In the research by Bird et al. (2006) the blood samples were taken before and after training.

In the article by Bird et al. (2006) on combined and independent effects of essential amino acids on muscular adaptations, most of the experiments took into account the participants condition before and after ingestion of the supplements while in Ferreira et al. (2014) research the results before the ingestion were more crucial.

## **Conclusion**

The two articles vary to a great extent though they both focus on issues concerning nutrition. They involve the use of different methods and materials of conducting the research and different ways of analyzing the findings. However, the information obtained as a result of the experiments is crucial in clinical practice and behavioral change to facilitate health promotion.

## **References**

Bird, S. P., Tarpinning, K. M., & Marino, F. E. (2006). Independent and combined effects of liquid carbohydrate/essential amino acid ingestion on hormonal and muscular adaptations following resistance training in untrained men. *European journal of applied physiology*, 97(2), 225-238.

Ferreira, M. P., Kreider, R. B., Cooke, M., & Willoughby, D. S. (2014). Periexercise coingestion of branched-chain amino acids and carbohydrate in men does not preferentially augment resistance exercise-induced increases in phosphatidylinositol 3 kinase/protein kinase B-mammalian target of rapamycin pathway markers indicative of muscle protein synthesis. *NUTRITION RESEARCH*, 34, 191-98.