Universitat Autònoma de Barcelona

INTAKE OF PROTEIN NUTRITIONAL SUPPLEMENTS COMBINED WITH A BALANCED DIET AND ITS INFLUENCE ON SKELETAL MUSCLE RECOVERY

BACKGROUND

Endurance sport is booming

More and more athletes decide to take care of their diet and nutritional supplementation

The athlete wants a quick recovery to be able to compete with the muscles in their optimal functioning

AIMS

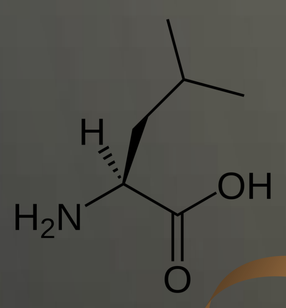
- Know about muscle regeneration, especially after resistance training.

- Ingestion of nutritional supplements accelerates or not the recovery process and if it will always be just as effective.

- Compare the influence of a balanced diet on skeletal muscle with supplementation. How do they affect both? Can they always be combined? Increase performance?

Skeletal muscle mass is regulated by daily fluctuation in rates of muscle protein synthesis (MPS) and degradation (MPB).

Objective: Maximum stimulation of MPS to promote protein synthesis and repair



Leucine as a key factor

Endurance exercise and food intake promote MPS

Long periods of fasting; sleep

Whey protein supplementation

High quality protein: Abundant in Leucine

Reduces muscle damage from resistance training.

CONCLUSION

Recommendation to distribute meals to optimize MPS function

Whey protein not proven to fast muscle recovery

Growing field of study

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FINAL DEGREE PROJECT

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