

Necessidades Energéticas e Vias Fisiológicas no Jiu-Jitsu

Caloric Needs of Jiu-Jitsu Practitioners

1. High Caloric Demand:

- Intense training sessions require high energy intake to support performance, recovery, and muscle maintenance.

2. Suggested Macronutrient Distribution:

- Carbohydrates (55-65%): primary fuel for training and competitions
- Proteins (20-25%): muscle maintenance and growth
- Fats (15-25%): hormonal support and sustained energy

3. Pre- and Post-Workout Meals:

- Pre: carbs + light protein (e.g., rice and eggs)
- Post: carbs + fast-absorbing protein (e.g., fruit and supplement)

4. Hydration:

- Constant fluid and electrolyte replacement is crucial to maintain physical and mental performance.

Main Energy Systems Used in Jiu-Jitsu

1. Anaerobic Alactic System (ATP-CP):

- Duration: up to 10 seconds
- Use: explosive movements like takedowns and sweeps

2. Anaerobic Lactic System:

- Duration: 30 seconds to 2 minutes
- Use: intense guard passing and stand-up exchanges
- Produces lactate

3. Aerobic System:

- Duration: predominant after 2-3 minutes
- Use: recovery between efforts, grip control, pacing

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- Importance: supports overall endurance and energy regeneration

Practical Summary

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- Ensure adequate glycogen stores through proper carbohydrate intake
- Maintain sufficient protein intake for muscle preservation and development
- Train strength, power, muscular endurance, and aerobic capacity
- Test nutritional and supplement strategies before competitions