



SPEED PROJECT

Sport & Prevention of Emerging Eating Disorders

Energy needs in youth sport

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Energy needs throughout a young athlete's day

A young athlete's day unfolds between school, travel, study,
and social interactions. Every phase requires energy.

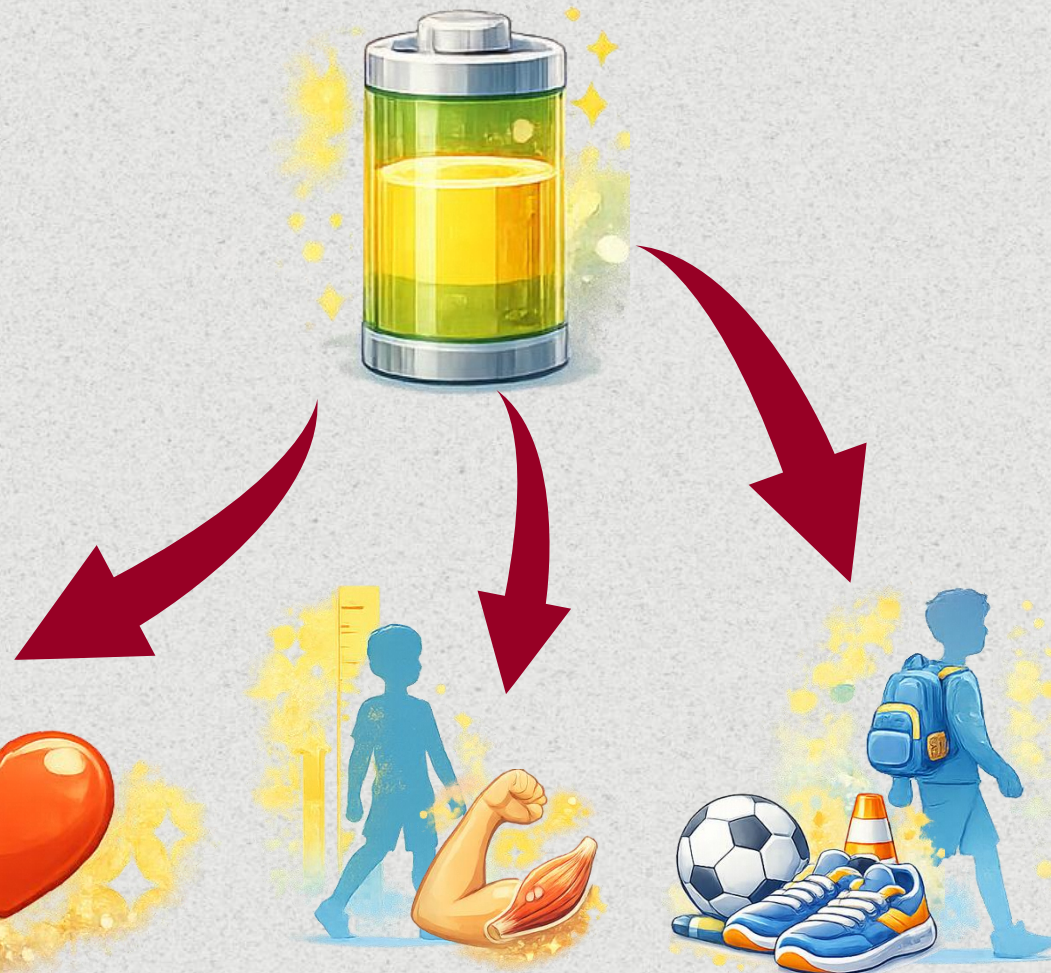
This energy determines not only the quality of training, but
also the ability to learn, focus, recover, and manage growth.



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What energy needs really depend on

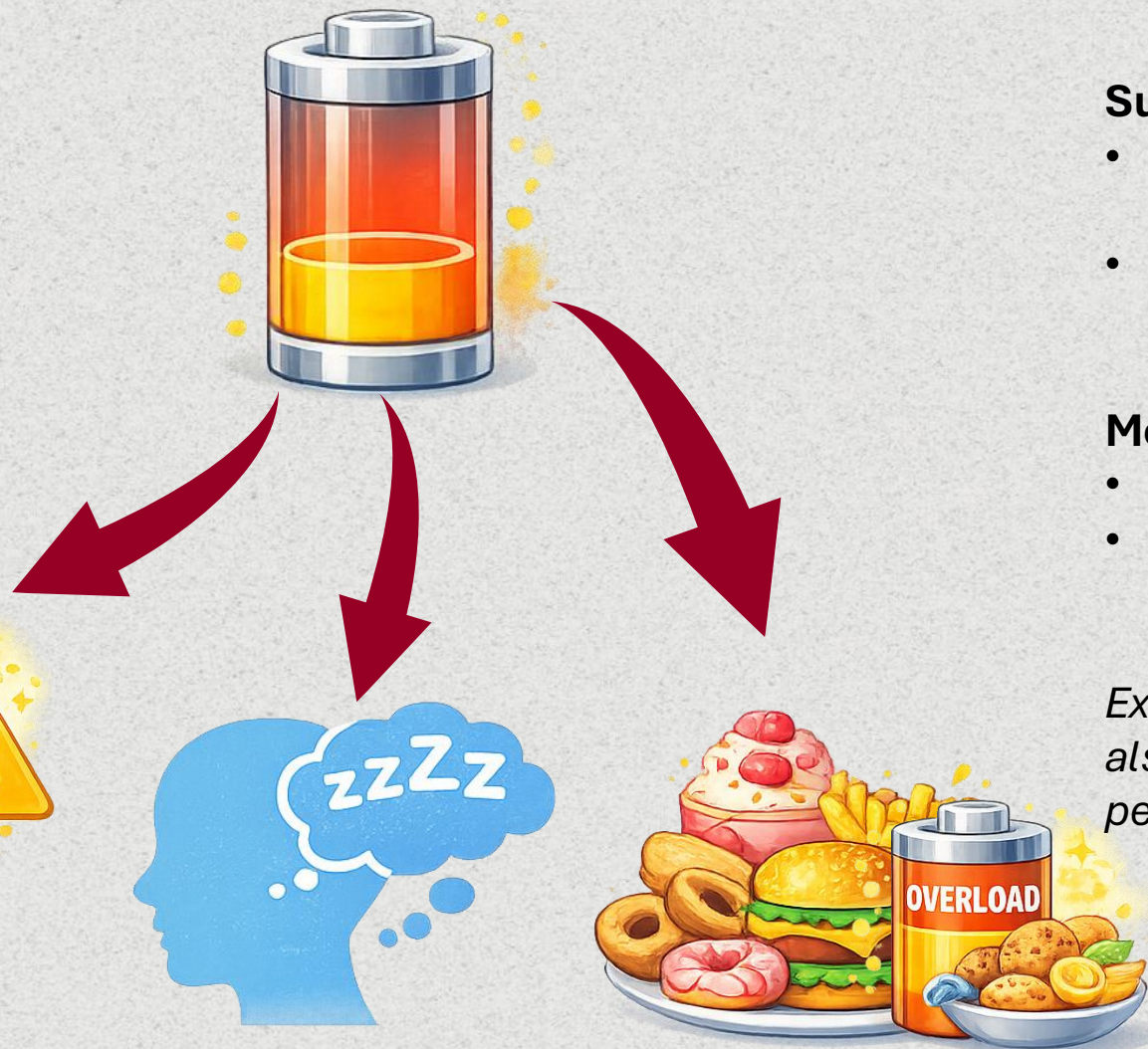


Four key factors:

- Basal metabolism: energy for breathing and vital functions
- Growth: building new tissues and muscle
- Daily movement, school, and social activities
- Training: varies by discipline, intensity, and frequency

Two athletes of the same age and sport may have very different needs. The goal is to learn to recognise the body's signals.

When energy is not enough



Subtle signals:

- Difficulty maintaining intensity at end of training
- Loss of focus at school, irritability, poor sleep

More evident signs:

- Persistent fatigue, increased minor injuries
- Stunted growth or, in girls, irregular menstrual cycles

Excess food concentrated in few moments also causes digestive difficulties and performance drops.



Example: afternoon training (5–7 pm)

- Substantial breakfast → solid base
- Lunch (1:30–2:30 pm) → carbs and nutrients
- Snack 60–90 min before training → quick energy
- Post-training dinner → recovery and replenishment



Solid base for the day; provides lasting energy for school and morning activity.



Pre-training snack 60–90 min before:
replenishes energy without weighing
the athlete down.



Lunch with carbohydrates and nutrients; dinner to complete intake and support recovery.

Adjusting nutrition on training, competition and rest days



Training days:

The body consumes more and must receive more fuel, especially through complex carbohydrates.

Competition days:

Familiar, digestible meals taken with the right lead time. Predictability matters most.

Rest days:

Total intake can be slightly reduced, but quality must stay high. The body still needs nutrients to recover and consolidate training.



What can a coach do?

To remember:

- Remind athletes to eat an adequate snack before training
- Emphasise the importance of breakfast and hydration
- Encourage respect for regular mealtimes



To be a role model:

Make nutrition a natural part of the sporting journey — not an obligation or a source of anxiety. Preparing the body through nutrition means respecting it.