

UNDERSTANDING LOW ENERGY AVAILABILITY (LEA)

Are you fueling your body enough to support your performance?

WHAT IS LEA?

Low Energy Availability (LEA) happens when the energy (calories) you eat isn't enough to cover both your training and the basic needs of your body—things like hormone regulation, recovery, digestion, and brain function. This isn't just about under-eating—it's about *under-fueling* for the demands of your sport.

WHY LEA MATTERS

Not eating enough over time can affect nearly every part of your body. Some common effects of LEA include:

Increased injury risk

Hormonal disruptions (like missed or irregular periods)

Weakened bones (higher risk for stress fractures)

Slower metabolism and fatigue

Mood changes and trouble focusing

Digestive issues

Poor sports performance (slower recovery, loss of strength, and endurance)

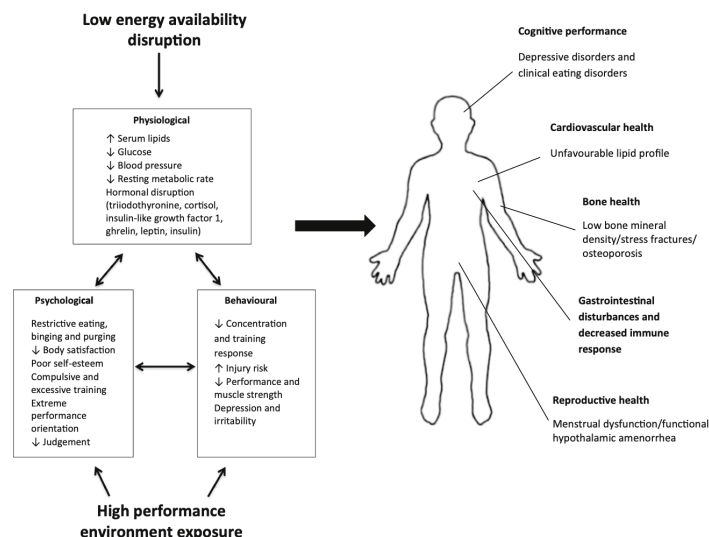
WHAT IS RED-S?

If LEA becomes chronic, it can lead to Relative Energy Deficiency in Sport (RED-S)—a more serious condition where your body simply doesn't have enough energy to keep up with the demands of training and everyday life.

This can lead to long-term health issues, poor recovery, and a noticeable decline in athletic performance.

WHAT TO WATCH FOR

- Frequent injuries or stress fractures
- Irregular or missing periods (for female athletes)
- Constant fatigue or burnout
- Trouble focusing, low motivation
- Not hitting performance goals despite hard training
- Feeling overly restricted or stressed around food



FUEL = PERFORMANCE + HEALTH

Getting enough calories—and the right balance of carbs, protein, fats, and micronutrients—is **essential** for:

Strong muscles and bones

Energy during workouts

Hormone balance

Focus, recovery, and growth

Long-term health

HOW TO STAY ON TRACK

- **Eat consistently throughout the day** (meals + snacks)
- **Don't skip carbs!** They're your body's preferred energy source
- **Include protein** at each meal to support recovery and muscle maintenance
- **Stay hydrated** and don't forget about micronutrients like iron, calcium, and B12
- **Work with a sports dietitian** to create a fueling plan that matches your training

Remember: Under-fueling doesn't make you tougher—it holds you back. Prioritize nutrition to perform your best and stay strong for the long run.

Sources:

- <https://www.gssiweb.org/sports-science-exchange/article/the-female-athlete-energy-and-nutrition-issues>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC7483688/>
- https://www.sportsrd.org/wp-content/uploads/2019/04/Low_Energy_Availability_in_Athletes-_A_Review_of_Prevalence_Dietary_Patterns_Physiological_Health_and_Sports_Performance.pdf
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC9724109/>

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