

What is **RED-S**?

Relative Energy Deficiency in Sport

This stems from **Low Energy Availability (LEA)**. This is an imbalance between your dietary energy intake and energy output.



Overtime this can **impair**:

- menstrual function
- bone health
- immunity
- cardiovascular health
- metabolic rate
- protein synthesis



Why is it important?

Menstrual cycle disturbances

RED-S can cause hormonal and menstrual cycle disturbances which can lead to **amenorrhea** (loss of menstruation) and result in **negative performance** outcomes. For example, decreased endurance, coordination, concentration and muscle strength.

20% of exercising females are affected by this.



Injury

Those with REDS are more likely to suffer from **stress fractures**. Athletes with Amenorrhea are 4.5 times more likely to have a **bone related injury**. This increases time spent away from training and will negatively impact team performance.

Take care of your body and mind.

RED-S is linked to **poor mental health**

What should I look for?

You need to be aware of the symptoms

- Haven't had first period by 16 years old
- Missed 3 menstrual cycles
- Repeated stress fractures
- Shin splints or persistent hip pain
- Body Mass Index <18.5
- Lack of energy
- Extended recovery
- Mood swings
- Depressive symptoms or anger
- Eating disorder
- Gastrointestinal problems



Treatment

- Seek a professional's advice
- **Increase your energy intake!**
- Improve fuelling with carbohydrates
- Improve recovery with protein
- Improve quantity and timing of meals
- Be flexible around eating and try not to restrict food groups
- **Oral contraceptive** artificially regulates the menstrual cycle and is **NOT** a treatment to solve LEA.