

RED-S



WHAT IS RED-S?

RED-S stands for **Relative Energy Deficiency in Sport**. It means the body has a **shortage of energy** available to keep up with the **demands of exercise** on top of **essential functions** like growth, respiration and digestion, resulting in impaired immunity, cardiovascular health, bone health amongst other things.

WHAT CAUSES RED-S?

RED-S is the result of **consistently not taking in enough energy** (from food and drinks) **for the amount of energy used by the body**, either intentionally or unintentionally.

WHAT CAN CONTRIBUTE TO A PERSON DEVELOPING RED-S?

RED-S can happen in **any active person**; they don't have to look very thin, nor appear to be restricting their eating.

A lot of the time **RED-S** can be **unintentional**:

- **Underestimating** the **energy requirements** of exercise
- **Increasing training** frequency/duration/intensity **without increasing the amount** (or right type) **of food eaten**
- **Suppressed appetite** or **upset stomach** surrounding training, leading to less food being eaten
- **Life changes** such as moving somewhere new, starting university, increasing active travel on foot/by bike, having to cook own meals, focusing on being 'healthier'

Sometimes **RED-S** can occur because of **intentional restriction** of energy intake:

- Intentional **food restriction** in an attempt to **lose weight** or **alter body composition**
- As a result of **disordered eating** behaviour or a **clinical eating disorder**

IDENTIFYING RED-S

PHYSICAL SYMPTOMS

- Unexplained **fatigue** or **low energy** levels
- Feeling **cold**
- Delayed/disordered **growth** or **development** (in children and teenagers)
- Recurrent or persistent **injury** or **illness** (eg colds and flu)
- **Missing or irregular periods**, and then heavier **periods** with worse symptoms
- Decreased **coordination**
- Low **bone mineral density**

PSYCHOLOGICAL SYMPTOMS

- Increased **irritability**, poor **concentration**, **depression**
- **Body dissatisfaction** or **dysmorphia**
- **Anxiety** around food
- **Anxiety** around exercise and **avoidance of rest days**

WHERE TO GET HELP

Often, athletes, coaches and doctors are unaware of **RED-S** and its serious implications. **Project RED-S** is an excellent resource providing **information** for athletes, coaches and supporters. If you think you may be affected by **RED-S** the **Project RED-S website** includes information on **identification/diagnosis** and an **example letter to take to your GP** who should be your **first port of call** when seeking help. Go to www.red-s.com to find out more.