



Eating disorders and sports nutrition

What is an eating disorder?

Eating disorders, or disordered eating, range from a slightly altered eating pattern up to the five diagnosable eating disorders listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; 2013).

All eating disorders will affect health and performance. Therefore, it is important that health professionals, trainers and coaches identify the early warning signs to help athletes access treatment as early as possible.

The spectrum of disordered eating can include:

- fasting or chronic restricted eating
- skipping meals
- binge eating
- self-induced vomiting
- restrictive dieting
- unbalanced eating (e.g. restriction of a major food group such as fats or carbohydrates)
- laxative, diuretic, enema misuse
- steroid/creatine use – supplements used to enhance performance and alter physical appearance
- using diet pills
- excessive, driven exercise

Prevalence of eating disorders

Eating disorders can affect people of any age, gender or sport, and have been associated with athletes at varying levels of sport. The higher rates of eating disorders and disordered eating in athletes is thought to be due to many reasons. These include weight and shape requirements

of certain sports that may lead the athlete to follow a restrictive diet. There can also be some shared psychological characteristics, such as excessive exercise, perfectionism and overcompliance, as well as high-achievement and obsessive-compulsive tendencies. Some sports are associated with higher risk of eating disorders, for example, sports that focus on appearance, low body fat stores, and meeting specific weight categories, such as gymnastics, triathlons, and combat sports¹. Sports performance will often be reduced because of poor nutrition and decline in mental function associated with disordered eating. This is normally when the eating disorder or disordered eating gets noticed and acted upon. Serious medical complications, including early death and cardiac problems, can arise from an eating disorder. Therefore, it is important the athlete receives timely, appropriate treatment.

Risk factors for eating disorders specific to athletes

Sports Dietitians Australia (SDA) have highlighted traits that are common in athletes that can increase their risk of developing an eating disorder or disordered eating behaviours.

These include¹:

- desire to optimise performance
- involvement in sport that emphasises physical appearance, size or leanness for performance

- increased body awareness, which may increase body image concerns, a leading risk factor for disordered eating
- personality characteristics often desired in athletes (competitive, perfectionist, disciplined)
- high stakes associated with winning (and losing)
- injury as a trigger for the onset of an eating disorder
- influence of parents, coaches and other athletes, for example pressure to perform

For athletes, a big risk arising from disordered eating is a reduction in performance. This can sometimes be used as a driver for eating disorder recovery for an elite athlete.

Disordered eating can affect every aspect of an athlete's life, including:

- athletic ability when malnutrition and dehydration lead to poor energy/glycogen stores and muscle weakness
- academic performance, especially concentration
- psychological changes, especially causing negative moods
- physiological issues (e.g. weight gain, muscle loss, osteoporosis/bone health, constipation and/or diarrhoea, headaches, muscle cramps, dizziness or fainting, fatigue, and poor sleep quality)
- social life when it leads to a withdrawal from others.

The Female Athlete Triad was once the clinical condition most often seen as a result of eating disorders and disordered eating in females. It is when disordered eating and irregular menstrual cycles led to a decrease in bone mineral density (BMD).

With the increasing occurrence of eating disorders in males, the International Olympic Committee updated their consensus statement on the Female Athlete Triad in 2014. The newer term, 'Relative Energy Deficiency in Sport' (RED-S), is now used for both males and females, and also the wide range issues linked to eating disorders, rather than just BMD². These include metabolic rate, menstrual function, bone health, immunity, protein synthesis, cardiovascular health and psychological health².

Nutrition

Nutrition is an important part of the recovery of an athlete with an eating disorder or disordered eating. The support team surrounding the athlete is also essential, and should include the coach/trainer, medical officer, dietitian, psychologist, and family members.

As a part of this support team, a sports dietitian and athlete will work together to ensure appropriate dietary intake, to ensure adequate energy, macro- and micronutrient intake to make sure the athlete is ready to return to training and competition once a return-to-play plan has been prepared by the support team. Working with a dietitian will ensure an individualised approach, as all athletes respond differently and have specific needs and goals. The focus of nutrition intervention is to provide adequate macronutrients to support performance, optimise nutrition intake for overall health and well-being and to support a sustainable and healthy relationship with food.

Often prevention and early identification is a more effective way of reducing rates of eating disorders in athletes. Close monitoring of all athletes is recommended by the coaching and training staff as well as family members. Emphasising the role of nutrition in performance and overall health is essential in the prevention of disordered eating behaviours.

For more information, visit:

- Inside Out Institute for Eating Disorders
www.insideoutinstitute.com.au
- Sports Dietitians Australia
www.sportsdietitians.com.au
- National Eating Disorders Collaboration
www.nedc.com.au

References

1. Sports Dietitians Australia (SDA) (n.d.), Eating Disorders Factsheet, Available from: www.sportsdietitians.com.au/factsheets/diets-intolerances/eating-disorders/
2. The IOC Consensus Statement: beyond the Female Athlete Triad – Relative Energy Deficiency in Sport (RED-S) (March 2014), Available from: <http://bjsm.bmj.com/content/48/7/491.long>