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Eating Disorders, Disordered Eating Behaviors, and Body Image in Athletes

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Course Objectives

- Recognize signs of poor body image, unhealthy eating- and body-related thoughts and attitudes, relative energy deficiency in sport (RED-S), and symptoms of disordered eating or eating disorders in athletes
- Identify sport-specific factors that may lead to increased risk of eating disorder onset in athletes
- Describe considerations related to exercise and training for athletes recovering from an eating disorder
- Support and educate athletes in developing healthier body image and better self- and body-esteem

Outline

- Diagnostic Overview and Screening Considerations
- Risk Factors
- Treatment Considerations
- Support Strategies

Diagnostic Overview and Screening Considerations

Anorexia Nervosa

- Restriction of energy intake -> significantly low weight or failure to gain weight as one grows;
- Intense fear of weight gain or persistent behaviors that interfere with weight gain;
- One or more of the following:
 - Seeing oneself as fat when in reality very thin
 - Basing one's self-worth on body shape or weight
 - Inability to recognize how the seriousness of the low weight.

Bulimia Nervosa

- Recurrent binge eating at least once a week for 3 months;
- Recurrent compensatory behaviors at least once a week for 3 months to undo the effects of the binge and/or to prevent weight gain;
 - Compensatory behaviors include vomiting, laxatives, diuretics, fasting, excessive exercise
- Basing one's self-worth on body shape or weight.

Binge Eating Disorder

- Recurrent episodes of binge eating but in the absence of recurrent compensatory behaviors. Binges are typically associated with three of the following features:
 - Eating rapidly
 - Eating until feeling uncomfortably full
 - Eating large amounts when not physically hungry
 - Eating alone because of embarrassment
 - Feeling disgusted, depressed, or guilty afterwards
- Distress regarding binge eating

Considerations for Disordered Eating Behaviors in Athletes

- Seasonality pertaining to competitive events
- Objective binge episodes (OBEs)
 - Quantity of OBE may differ across sports and training loads
 - Assess for total calorie consumption + training time and intensity to gauge for subjective vs objective binge episodes
- Use of unapproved or unreported laxatives, diuretics, diet pills during required drug testing periods, particularly for elite athletes

Maladaptive Exercise Behaviors

- Differing descriptions of maladaptive exercise: excessive/compulsive/obligatory exercise, exercise dependence/addiction
- Generally conceptualized as feeling driven to exercise, which helps to alleviate distress
- Most individuals use exercise to modulate affect, control weight and shape, and/or purge themselves of calories
- Primary vs secondary features to an eating disorder (de Coverley Veale, 1987)
 - Primary exercise dependence: without eating disorder pathology
 - Secondary exercise dependence: primary concern is eating disorder pathology

Maladaptive Exercise Screening Tools

- Athletes' Relationships to Training Scale (ART; Chapa et al., 2018)
- Compulsive Exercise Test (CET; Plateau et al., 2014)
- Exercise Dependence Scale (EDS; Hausenblas & Downs, 2010)
- Obligatory Exercise Questionnaire (OEQ; Pasman & Thompson, 1988)

What should we look for?

Quantitative:

- Total number of hours
- Time spent outside of training exercise
- Cardio vs weightlifting (losing weight vs toning/increasing muscularity)

Qualitative:

- Feelings of guilt or anxiety if unable to exercise
- Obsessive/intrusive thoughts
- Training and competing through injury and illness
- Impact on quality of life

Orthorexia

- Not official DSM-5 diagnosis
- Obsession with healthy eating
- Typical signs:
 - Only a small group of foods are allowed (“safe” foods)
 - Spends large amounts of time thinking about food and meals
 - Compulsive checking of nutrition labels or ingredient lists
 - Distress when safe foods aren’t available
 - Weight and shape concerns may or may not be present
- Similar to anorexia, malnutrition is common due to restrictive eating
- Very common in athletes due to focus on healthy eating

Relative Energy Deficiency in Sport (RED-S)

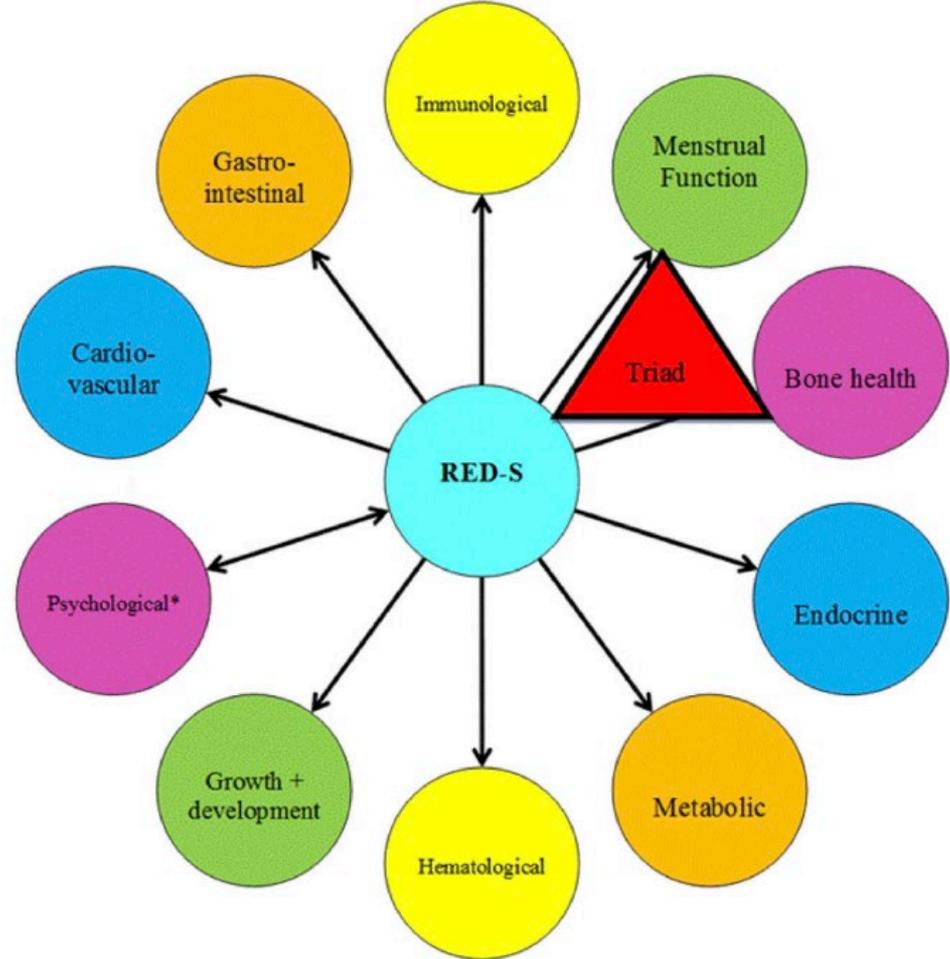


Figure 1 Health consequences of Relative Energy Deficiency in Sport (RED-S) showing an expanded concept of the Female Athlete Triad to acknowledge a wider range of outcomes and the application to male athletes (*Psychological consequences can either precede RED-S or be the result of RED-S).¹⁴

From Mountjoy et al., 2014, 2018

Athlete-Specific Eating Disorder Screening Tools

- Brief Eating Disorder Screen for Athletes (BEDA; Martinsen et al., 2014)*
- Athlete Milieu Direct Questionnaire (AMDQ; Nagel et al., 2000)
- Female Athlete Screening Tool (FAST; McNulty et al., 2001)
- RED-S Clinical Assessment Tool (RED-S CAT; Mountjoy et al., 2015)

Prevalence of Eating Disorders in Athletes

- Most research suggests that athletes demonstrate a higher prevalence of eating disorders (EDs) compared to non-athletes.
- **0-9%** in male athletes & **6-33%** in female athletes (Bratland-Sanda & Sundgot-Borgen, 2013)
 - Compare with 1-5% in general population (Smink et al., 2012)
- High prevalence may extend into the first 5 years of retirement (Thompson et al., 2020)

Why might athletes be at
greater risk of developing an
eating disorder?

General Eating Disorder Risk Factors

Genetic/Biological Risk Factors

Height
Weight/Shape/Body fat
Family history of eating disorders
Gender
Age

Psychological Risk Factors

Personality traits (e.g., perfectionism)
Weight and shape concerns
Poor body image
Internalizing thin body ideal
Social comparison

Environmental and Behavioral Risk Factors

Peer/family/coach/teammate pressures
Social media and general media exposure
“Fat Talk”
Dieting
Media literacy
Other mental disorder
Adverse life events

Sport-Specific Risk Factors

Participation in sports that emphasize leanness

Early sport specialization

Personality traits commonly found in elite athletes and those with EDs (i.e., perfectionism)

Traumatic injuries

Being required to wear revealing attire/uniforms/sports gear

Athlete identity

Negative coaching comments and behaviors

Pervasive body shaming & diet culture messages

Sexualization and objectification of athlete bodies

Body Image

- Body image is the collection of thoughts, feelings, and behaviors related to how individuals view their bodies.
- **Poor body image** refers to a negative and unrealistic viewpoint, which often manifests as negative and self-disparaging thoughts and feelings.

Signs of Poor Body Image in Athletes

Body checking/self-scrutiny over appearance (e.g., constantly analyzing how one looks, frequent weight checks)

Avoiding mirrors and/or photographs altogether or spending large amounts of time in front of mirrors scrutinizing one's body

Frequent self-criticism about shape, weight, or appearance

Belief that something is wrong with appearance

Frequent comparison to others (fellow athletes, celebrities, friends, social media, etc.)

Feeling self-conscious and/or down about appearance



Treatment Considerations

Sport-Specific Barriers to Treatment

- Lack of time
 - Rigorous training schedules
 - Frequent travel for events
- Elevated stigma surrounding mental health compared to non-athletes
- Negative interactions with health care providers
- Fear of the perception that seeking treatment demonstrates weakness
- Athletes are less likely to seek treatment for mental health disorders than non-athletes
- Few providers with combined eating disorder and sports specialties
- Possible career consequences

Increasing Buy-In from Athlete

Mental Health Model in Sports:

Better Mental Health

Better Performance

Short-Term Impacts

- Electrolyte imbalance
- Breakdown of muscle
- Slow heart rate
- Low metabolic rate and blood pressure
- Stomach pain and bloating
- Constipation
- Difficulties concentrating
- Muscle cramps
- Fainting/dizziness

Immediate negative impacts on performance in training and competition.

Long-Term Consequences

- Heart failure (body breaks down muscle when not getting enough nutrients)
- Higher risk of injury
- Osteoporosis, brittle bones, fractures
- Bacterial infections
- Stomach and esophageal ruptures
- Pancreatitis
- Sleep apnea
- Anemia (which results in fatigue, weakness, and shortness of breath)
- Possible mortality

Long-term negative impacts on career longevity and achievement

Impacts of RED-S

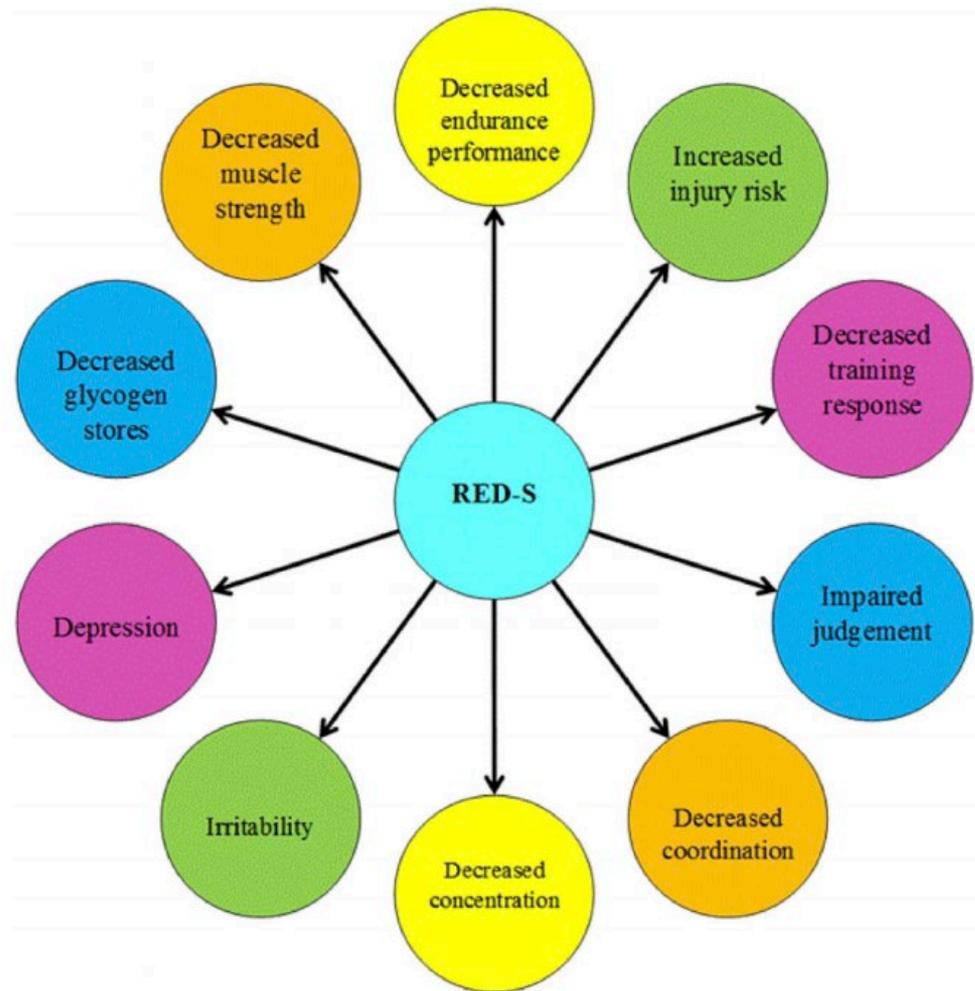


Figure 2 Potential Performance consequences of Relative Energy Deficiency in Sport (*Aerobic and anerobic performance).¹⁴

Multidisciplinary Team Approach

- Work directly with sports medicine staff (ATCs, PTs, MDs), sport dieticians
- Keep coaches and trainers informed as needed with athlete's consent
- Create specific exercise plan and ED Return to Play (RTP) plan
 - Consider transition out of treatment back into sport, especially for team sports & team members

Support Strategies

Speaking with your Athletes

Table 2 Eating behaviour questions⁵⁰

Topic	Questions
Questions to start the conversation	<ul style="list-style-type: none">▶ How have you been feeling in general? How do you feel about yourself?▶ Do you mind if we talk about your eating habits?
Initial critical questions	<ul style="list-style-type: none">▶ Are there foods or food groups that you avoid eating? How do you feel about dieting in general?▶ How do you feel about your body size?▶ In what ways does your weight affect the way you think about yourself?▶ What percentage of your waking hours do you spend thinking about weight, food and body image?

From Joy, Kussman, & Nattiv, 2016

- Understand that eating disorders are complex psychological-medical problems. **Avoid simplistic comments that are rooted in misunderstandings of the illnesses.**
- Express your concern and **be clear** about the observations you have made. Do so in a neutral and caring way by using “I” statements.
- Give clear guidance on how to schedule a professional evaluation with an experienced provider who has eating disorder expertise.
- Don’t let the subject drop! **Follow-up.**

Creating a Healthy Training Environment

- Encourage intuitive eating, mindful movement, and body positivity
- Do your best to eat healthfully if/when eating with your athletes
- Emphasize strength, ability, and overall health and wellness rather than thinness
- Avoid “fat talk”
- Maintain a positive attitude toward your own body shape and weight
- Do not discuss other athletes’ weight or shape with your athletes or in front of them.
 - Encourages social comparison
 - Makes your athletes wonder what kinds of things you say about them to others.

Highlights

- Eating disorders and disordered eating behaviors may be more prevalent in athletes who participate in certain sports that emphasize leanness, aesthetics, endurance, or have weight constraints than in athletes who do not participate in these sports and in the general population.
- Sport-specific risk factors for eating disorders may include participating in sport categories listed above; early sport specialization; negative comments on weight or shape from coaches, peers, or officials; being required to wear revealing attire; and athletic identity, among others.
- Although research often focuses on the *quantity* of exercise to determine if an individual meets criteria for excessive exercise, it is also important to screen for the *quality* of excessive exercise in athletes, such as an obsessive or compulsive nature or exercising outside of and in addition to typical training times to control weight and shape, despite sickness and injury, or to the point where it impacts daily functions.

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Thank you! Any questions?