AASP, Eating Disorders Special Interest Group, 2018

Eating Disorders Among Athletes

Detection & Referral Guidelines

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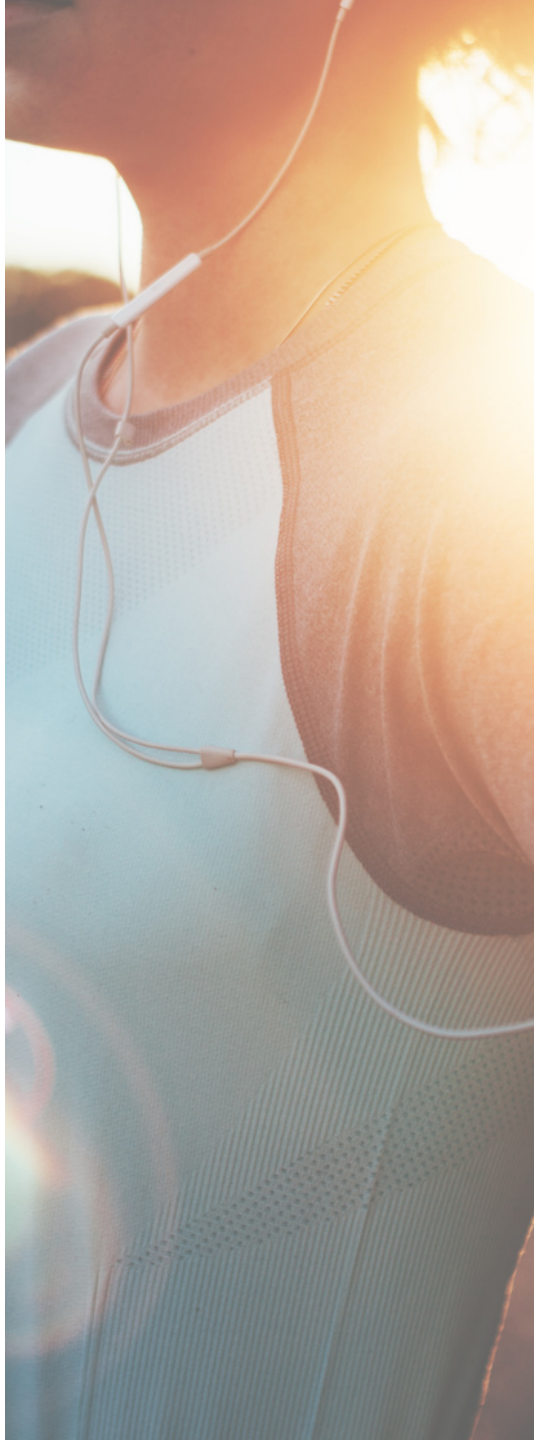


EATING DISORDERS AMONG ATHLETES

DETECTION & REFERRAL GUIDELINES

I. **Definition, Prevalence, Etiology**
II. Health Risks, Signs, Symptoms & Early Detection
III. Multidisciplinary Assessment
IV. Managing Resistance & Motivating Recovery

Eating Disorders:
Detection & Referral Guidelines

Part I :
Definition, Prevalence, Etiology

Purpose

Eating disorders (EDs) are serious mental illnesses posing substantial threat to mental and physical health.

Rates of EDs and subclinical disordered eating behaviors (DEBs) continue to increase across the nation and in particular among athletes.

The purpose of this presentation is to provide an overview of approaches used for the detection of EDs in athletes and referral for evaluation and/or treatment.

Vital components of effective care for athletes are summarized. It is hoped that this summary will facilitate effective ED-related assessment and referral for athletes and thereby reduce risk and improve athlete well-being.

What is an Eating Disorder?

An ED is a mental illness often characterized by disturbance in thoughts, emotions and behaviors which may be associated with body image, weight, food, eating, exercise, and/or appearance.

EDs are substantially different from more common eating and body related frustrations. ED conditions have obsessive and compulsive features but EDs markedly differ from Obsessive Compulsive Disorders, Body Dysmorphic Disorders and Addictions.

What is an Eating Disorder?

Eating disorders are powerful illnesses that resist change.

Once established, eating disorders are best treated by professionals having expertise in EDs.

EDs are best treated in longer term, comprehensive and multi-disciplinary professional care.

Eating Disorder Diagnoses

Six Different Eating Disorder Diagnoses

1) Anorexia Nervosa (AN)
2) Bulimia Nervosa (BN)
3) Binge Eating Disorder (BED)
4) Avoidant/Restrictive Food Intake Disorder (ARFED)
5) Other Specified Feeding & Eating Disorder (OSFED)
6) Unspecified Feeding & Eating Disorder (UFED)

Anorexia Nervosa (AN)

AN is characterized by restricted energy intake relative to an individual's energy requirements, leading to low body weight in the context of age, sex, developmental trajectory and health status.

AN is also characterized by disturbance of body image, intense fear of weight gain, lack of awareness of the seriousness of the illness and behaviors that interfere with weight maintenance or weight restoration.

(Diagnostic and Statistics Manual V, 2013)

Bulimia Nervosa (BN)

BN is characterized by episodes of eating large amounts of food with a concomitant sense of loss of control of while eating and a sense of loss of control of the amount that one is eating.

Eating episodes are followed by purging or compensatory behavior such as self-induced vomiting, laxative or diuretic abuse, insulin misuse, excessive exercise, or diet pills, etc. occurring once a week or more for at least 3 months.

Disturbance of body image, an intense fear of gaining weight or change in body shape and lack of recognition of the seriousness of the illness may also be present.

(Diagnostic and Statistics Manual V, 2013)

Binge Eating Disorder (BED)

BEDs occur at least one day per week for three months and are characterized by eating a large amount of food in a short period of time with a concomitant sense of loss of control regarding the kind and quantity of food eaten.

Binge eating episodes are associated with three or more of the following; rapid eating, feeling uncomfortably full, eating when not hungry, eating alone because of embarrassment, and feeling disgusted, depressed or embarrassed after overeating.

Disturbance of body image, intense fear of gaining weight and lack of recognition of the seriousness of the illness may also be present.

(Diagnostic and Statistics Manual V, 2013)

Avoidant/Restrictive Food Intake Disorder

(ARFID)

ARFID is associated with significant weight loss, nutritional deficiency, dependence on nutritional supplement or marked interference with psychosocial functioning due to caloric or dietary restriction, but without weight or shape concerns.

(Diagnostic and Statistics Manual V, 2013)

Other Specified Feeding & Eating Disorder

(OSFED)

OSFED is an ED that does not meet full criteria for one of the above categories, but has specific disordered eating behaviors such as restricting intake, purging and/or binge eating as key features.

(Diagnostic and Statistics Manual V, 2013

Unspecified Feeding or Eating Disorder

(UFED)

The diagnosis of UFED may be assigned when ED behaviors are present and cause distress, but do not fully meet criteria for another ED and/or are not further specified in detail by the care provider.

(Diagnostic and Statistics Manual V, 2013)

DEBs

“Disordered Eating Behaviors” (DEBs)
are conditions having subclinical characteristics or characteristics not fully meeting formal DSM-V Diagnostic Criteria. BEDs are more prevalent than EDs.

Disordered Eating Behaviors

Disordered eating behaviors (DEB) may include features such as binge eating, purging, laxative abuse, excessive exercise and fasting for weight loss, but are not sufficiently severe or frequent to meet full ED diagnostic criteria.

Seventy percent (70%) of athletes who participate in sports having weight classes, are engaging in one or more DEBs in order to meet weight requirements.

(Sundgot-Borgen & Torstveit, 2010)

Prevalence

EDs are difficult to detect and likely under reported.

It is estimated that 10 million women in the United States and 1 million men of diverse gender, ethnicity, socio-cultural origin, socioeconomic status and age, will have EDs during their lifetime

(Eddy et al., 2016; Stice, Marti, Shaw, & Jaconis, 2010; Wade, Keski-Rahkonen, & Hudson, 2011)

Prevalence

EDs occur across diverse gender, ethnic, socio-cultural, economic and age groups.

EDs vary from 0-19% in male athletes and 6-45% in female athletes.

Among high level athletes, ED’s are highly common among women in racing sports where there is a focus on body size as it relates to performance (14%), and among men in sports having weight classes such as combat sports (7%).

Prevalence

It is estimated that EDs are more prevalent among athletes than non-athletes.

Among elite high school students, ED prevalence has been found to be higher among athletes than among non-athletes (7.0 vs. 2.3%) and prevalence is higher for females than males (14.0% vs. 5.1%).

(Glazer, 2008; Martinsen & Sundgot-Borgen, 2013; SundgotBorgen & Torstveit, 2004

Prevalence

Among college students, 30% of college female athletes and 10% of males meet criteria for eating disorders.

(Mental Health Best Practices, NCAA Sport Sciences Institute, 2016)

Earlier reports showed higher rates of EDs in weight sensitive sport environments such as wrestling, crew, cycling, diving, and running, etc. Recent studies have shown no difference.

(Martinsen & Sundgot-Borgen, 2013)

Factors Associated with Increased ED Risk

Belonging to a subset of the total population (i.e., gender minority, sexual minority, athlete, etc.) does not cause EDs, but is associated with greater ED risk.

(Feldman & Meyer, 2007; Pernick et al., 2006)

However, a significant number of elite athletes (94%) in weight sensitive sports report dieting and use of extreme weight control measures to achieve or maintain a desired weight.

(Chatterton & Petrie, 2013; Sundgot-Borgen et al., 2013)

What Causes Eating Disorders?

Eating disorders are multifactorial and uniquely determined for each individual. Factors such as genetics, environment, personality and culture may predispose ED development.

Brewerton, 2017;
Trace, Baker, Penas-Lledo, & Bulik, 2013

Other contributing factors can include; early dieting or weight loss experience, childhood illnesses with dietary treatment and trauma history.

Conviser, Fisher & McColley, 2018;
Neumark - Sztainer, Wall, Larson, Eisenberg, & Loth, 2011

GENETICS

ENVIORNMENT

PERSONALITY

EARLY CHILD DEVELOPMENT

CULTURE

GENETIC PREDISPOSITION

Numerous Etiological Theories

Early negative introject shapes separation. Klein, 1946

Developmental deficits and sexual conflicts disrupt identity development. Bruch, 1960

Deficits in attachment impair separation. Winnicott, 1965

Deficits of self regulation. Dwyer, 1969

Dysfunctional family patterns. Minuchin, 1978

Impaired healthy boundaries arrests development & prevents fusion with parental objects. Palazzoli, 1978

Deficits in autonomy. Crisp, 1980

Numerous Etiological Theories

Eating disorders have vital functions.
Most consider eating disorders to be maladaptive coping.

- Insufficient self-regulation.
  Rosen & Lietenberg, 1982
- External family structure changes internal psychological structure
  Schwartz, 1995
- Cultural influences such as a thin ideal pose unrealistic expectations.
  Brownell, 1996
- Brain-related neurochemical abnormalities change factors such as appetite, interest in eating, mood and anxiety.
  Johnson, Strober, Bemudez, 2012
- Brain structure abnormalities aggravating obsessive compulsive focus on eating, body and appearance.
  Bemudez, 2015

What Factors Contribute to Eating Disorders?

Personality characteristics may play a role in the development of EDs:

- Perfectionism
- History of mood disorder
- History of anxiety
- Addictions
- Obsessive compulsive disorders
- Family history of EDs

(Culbert, Racine & Klump, 2015; Striegel-Moore & Bulik, 2007)

Factors Contributing to ED Risk

Family history of:

- Family discord
- Financial pressure
- Genetic history of addictions
- Genetic history of obsessive compulsive disorder
- Mood and anxiety disorders
- Eating disorders

Cultural or community exposure to:

- Dieting or weight loss focus
- History of physical or sexual abuse
- Pressures to be thin
- Traumatic life experience
- Chronic stress
- Food scarcity or insecurity

The Risks of Advising Weight Loss are Well Documented

Early exposure to putative behaviors, such as caloric restriction and exercise for the purpose of caloric expenditure and weight loss, are associated with later higher rates of obesity, EDs, DEBs and greater severity of obese conditions.

Neumark- Sztainer, Wall, Larson, Eisenberg, & Loth, 2011

Factors Associated with Increased ED Risk Among Athletes

- Early sport specialization
- Early participation in competition
- Being an elite athlete
- Hours of weekly training
- Hours weekly of extra conditioning
- Available recovery time
- Low self-esteem
- History of trauma
- Training environment focused on weight
- Sport emphasizes appearance

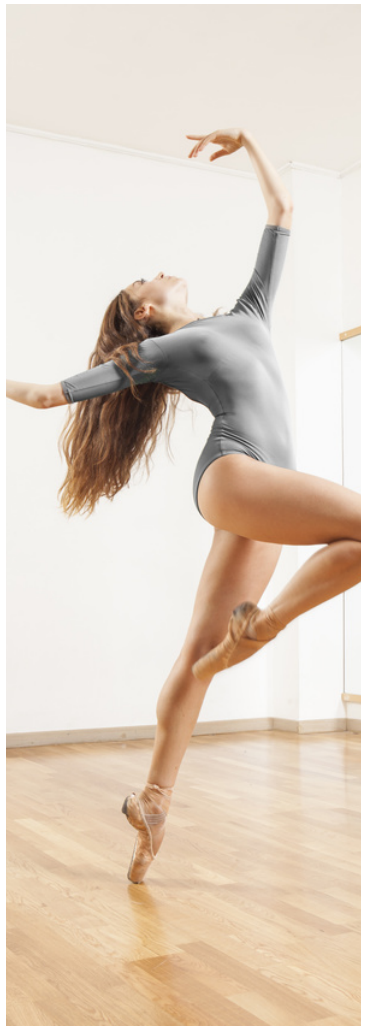
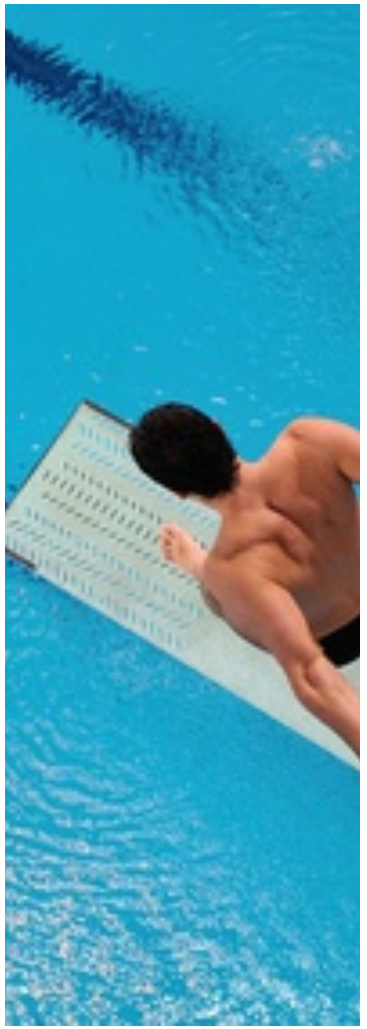
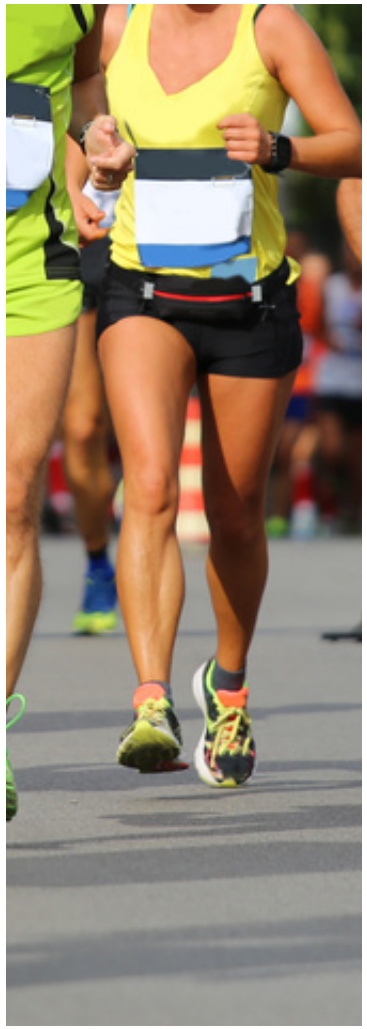
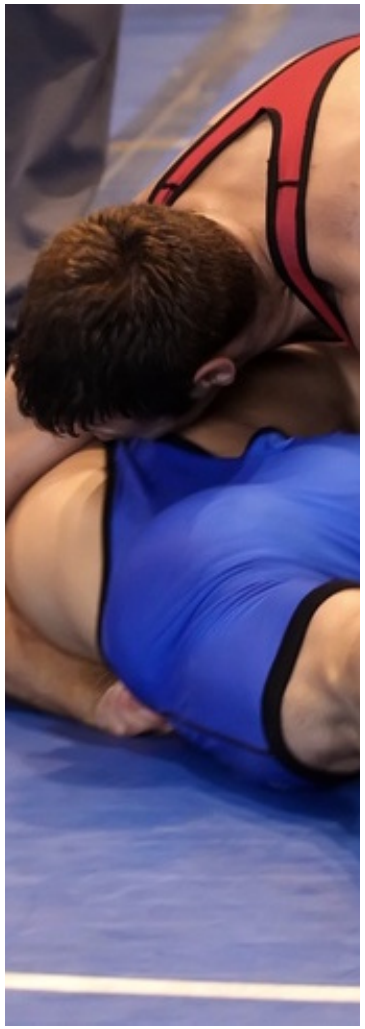
Factors Contributing to ED Risk Among Athletes

Sports that emphasize appearance, weight requirements, weight classes, muscularity or thin physique, ie, gymnastics, diving, body building & wrestling.

Individual sport participants, ie, gymnastics, running, figure skating, dance & diving.

Endurance sport participants, ie, track, cross country, marathon racing & swimming.

Athletes who overvalue weight loss as a means of improving performance.

A study of Division I NCAA Athletes (2013) found:

Over one-third of female athletes reported beliefs and symptoms placing them at risk for AN.

Most athletes with EDs are female.

Male athletes are also at ED risk and especially those competing in sports that tend to place an emphasis on the athlete's diet, appearance or size:

Appearance
-Diving, gymnastics, figure skating, etc.

Size
-Running, cross country skiing, football, etc.

Weight Requirements
-Wrestling, boxing, crew, jockey, etc.

Factors Associated with Increased ED Risk Among Male Athletes

Preoccupation with masculinity and muscularity

History of anabolic steroid use

History of weight cycling

Preoccupation with power-to-weight ratio

Pressure to achieve ideal athletic appearance

Previous history of obesity

Risk Among Male Athletes

Sport related pressures may exist among male athletes to change weight.

Binge eating may occur in an effort to gain weight for sport related expectations.

Binge eating may occur in response to dietary restriction and/or attempts to control or lose weight.

Risk Among Male Athletes

Male athletes may delay seeking ED assessment and beginning treatment because of related stigma.

Male athletes may have greater compromised health prior to seeking treatment due in part, to delay in seeking treatment.

Considerations for Male Athletes

Male athletes who are diagnosed with an ED and especially Anorexia Nervosa, may have greater suicide risk.

Careful monitoring and comprehensive treatment are indicated.

ED Risk Factors for Female Athletes

Contributing factors are unique for each individual and may vary widely from person to person.

Four Factors Commonly Contribute to the Development of Eating Disorders Among Female Athletes:

SOCIAL

The social or sport context emphasizes thinness

NEGATIVE SELF - APPRAISAL

Negative self-appraisal of athletic achievement

ENVIORNMENTAL

An environment that perpetuates extreme performance anxiety

IDENTITY

Identity development solely based on athletic participation

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References

- Brewerton, T., D. (2017). Food addiction as a proxy for eating disorder and obesity severity, trauma, history, PTSD symptoms, and comorbidity. Eating and Weight Disorders- Studies on Anorexia, Bulimia and Obesity, 22, 241-247.
- Chatterton, J. M., & Petrie, T. A. (2013). Prevalence of disordered eating and pathogenic weight control behaviors among male collegiate athletes. Eating Disorders, 21, 328-341.
- Culbert, K. M., Racine, S. E., & Klump, K. L. (2015). Research review: What we have learned about the causes of eating disorders – a synthesis of sociocultural, psychological, and biological research. Journal of Child Psychology and Psychiatry, 56, 1141-1164.
- DiPasquale, L. D., & Petrie, T. A. (2013). Prevalence of disordered eating: a comparison of male and female collegiate athletes and nonathletes. Journal of Clinical Sport Psychology, 7, 186-197.
- Eddy, K. T., Tabri, N., Thomas, J. J., Murray, H. B., Keshaviah, A., Hastings, E., ... & Franko, D. L. (2016). Recovery From anorexia nervosa and bulimia nervosa at 22-year follow-up. The Journal of Clinical Psychiatry. 78, 184-189.
- Favaro, A., Caregaro, L., Tenconi, E., Bosello, R., and Santonastaso, P. (2009). Time trends in age at onset of anorexia nervosa and bulimia nervosa. Journal of Clinical Psychiatry, 70, 1715-1721. doi: 10.4088/JCP.09m05176blu.

References

- Feldman, M., & Meyer, I. (2007). Eating disorders in diverse, lesbian, gay, and bisexual populations. International Journal of Eating Disorders, 40, 218-226.
- Glazer J. (2008). Eating disorders among male athletes. Current Sports Medicine Reports, 27, 332-337.
- Hoek, H. W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. International Journal of Eating Disorders, 34, 383-396.
- Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the national comorbidity survey replication. Biological Psychiatry, 61, 348–358.
- Linville, D., Benton, A., O'Neil, M., & Strum, K. (2010). Medical Providers' screening, training and intervention practices for eating disorders. Eating Disorders, 18, 110-131.
- Martinsen, M., & Sundgot-Borgen, J. (2013). Higher prevalence of eating disorders among adolescent elite athletes than controls. Medicine Science Sports and Exercise, 45, 1188-1197.

References

- NCAA (2016). Mental health best practices. Retrieved from www.ncaa.org/mentalhealth.
- Neumark-Sztainer, D., Wall., M., Larson, N., I., Eisenberg, M., E., & Loth, K. (2011). Dieting and disordered eating behaviors from adolescence to young adulthood: Findings from a 10-year longitudinal study. Journal of the American Dietetic Association, 111, 1004-1011.
- Sundgot-Borgen, J, Meyer, N, L., Lohman, T., G., Ackland, T., R., Maughan, R., J., Stewart, A,... Muller, W. (2013). How to minimise the health risks to athletes who compete in weight-sensitive sports. British Journal of Sports Medicine, 47, 1012-1022.
- Sundgot-Borgen, J., & Torstveit, M. K. (2004). Prevalence of eating disorders in elite athletes is higher than in the general population. Clinical Journal of Sport Medicine, 14, 25-32.
- Sundgot-Borgen, J., & Torstveit, M. K. (2010). Aspects of disordered eating continuum in elite high-intensity sports. Scandinavian Journal of Medicine Science and Sports, 20, 112-121.

References

- Pernick, Y., Nichols, J. F., Rauh, M. J., Kern, M., Ming, J., Lawson, M. J.,...Wilfley, D. (2006). Disordered eating among a multiracial, ethnic sample of female high school athletes. Journal of Adolescent Health, 38, 689-95.
- Stice, E., Marti, C.N., Shaw, H., & Jaconis, M. (2010). An 8-year longitudinal study of the natural history of threshold, subthreshold, and partial eating disorders from a community sample of adolescents. Journal of Abnormal Psychology, 118, 587-597. doi: 10.1037/a0016481.
- Striegel, R. H., & Bulik, C. M. (2007). Risk factors for eating disorders. American Psychologist, 62, 181.
- Trace, S. E., Baker, J. H., Peñas-Lledó, E., & Bulik, C. M. (2013). The genetics of eating disorders. Annual Review of Clinical Psychology, 9, 589-620.
- Wade, T. D., Keski-Rahkonen A., & Hudson J. (2011). Epidemiology of eating disorders. In M. Tsuang and M. Tohen (Eds.), Textbook in Psychiatric Epidemiology (3rd ed.) (343-360). New York: Wiley.

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