

## Eating Disorders Among Student Athletes

About eight million youth participated in high school sports in 2018-2019. Of these, it is estimated that about one-third manifested disordered eating with a prevalence as high as 45% in female and 19% in male athletes (Holm-Denoma et al., 2008; Sundgot-Borgen & Torstveit, 2004; Xanthopoulos et al., 2020).

Other Center resources discuss eating disorders in general (e.g., see *Eating Disorders in Schools* – <http://smhp.psych.ucla.edu/pdfdocs/eatingdis.pdf>). This brief resource highlights (1) risk factors and indicators for athletes and (2) implications for schools.

### Risk Factors and Indicators for Athletes

There is not one cause of eating disorders – a "complex combination of genetic susceptibility, personality, sociocultural, and interpersonal factors" have been identified (Xanthopoulos et al., 2020). Athletes are an especially high risk group.

#### Risk Factors for Athletes

- Sports that emphasize appearance, weight requirements, or muscularity (gymnastics, diving, bodybuilding, or wrestling)
- Sports that focus on the individual rather than the entire team (gymnastics, running, figure skating, dance, or diving vs team sports such as soccer or basketball)
- Endurance sports such as track and field, running, or swimming
- Overvalued belief that lower body weight will improve performance
- High-performance expectations from self, parents, or coaches
- Training for a sport since childhood or being an elite athlete
- Struggling to find time for help amidst busy schedule
- Injury/Time away from sport
- A perfectionist attitude regarding sports
- Performing well at a low weight and slipping into destructive behaviors
- Coaches who focus primarily on success and performance rather than on the athlete as a whole person.

Three risk factors are thought to particularly contribute to a female athlete's vulnerability to developing an eating disorder: social influences emphasizing thinness, performance anxiety, and negative self-appraisal of athletic achievement. A fourth factor is an identity solely based on participation in athletics.

National Eating Disorders Association (NEDA)  
<https://www.nationaleatingdisorders.org/eating-disorders-athletes>

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\*The material in this document builds on work done by Ashley Johnson as a participant with the national Center for MH in Schools & Student/Learning Supports at UCLA in 2021.

The center is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA. Website: <http://smhp.psych.ucla.edu>

## **About the Female and Male Athlete Triad**

From: <https://www.femaleandmaleathletetriad.org/about/>

The Female and Male Athlete Triad is a syndrome of three interrelated conditions that exist on a continuum of severity, including:

### **1. ENERGY DEFICIENCY – Low Energy Availability with or without Disordered Eating**

Energy deficiency is the main cause of the Triad. An energy deficiency is an imbalance between the amount of energy consumed and the amount of energy expended during exercise. The primary cause of the Female and Male Athlete Triad is energy deficiency. Often, this can involve a conscious restriction of food intake, problems with body image and a high drive for thinness. Sometimes, these conditions can lead to disordered eating, or more serious eating problems, like anorexia or bulimia.

### **2. REPRODUCTIVE SUPPRESSION – Menstrual Disturbances & Amenorrhea in Women**

The most serious menstrual problem associated with the Triad is amenorrhea, defined as no menstrual period for 3 months or more. However, athletes who have irregular menstrual cycles are also susceptible to the effects of the Triad.

#### **Altered Hypothalamic-Pituitary-Gonadal Axis & Hypogonadotropic Hypogonadism in Men**

The reproductive problems associated with the Triad in men include reduced/low testosterone, oligospermia, and decreased libido.

### **3. IMPAIRED BONE HEALTH – Bone Loss, Osteoporosis & Bone Stress Injuries**

Individuals with the Triad are at higher risk for low bone mass leading to weakened bones, called osteoporosis in its severe form. This type of bone loss can cause an increased risk of fractures, including stress fractures.

Because many indicators of eating disorders are normal, expected, or desired behaviors in sports, the problem can be difficult to identify in athletes.

### **Some Behaviors that May Indicate an Eating Disorder in an Athlete**

- Overtraining
- Restrictive dieting/food avoidance
- Binge eating
- Comparing eating habits/athletic abilities to teammates
- Critical of body weight/composition
- Pushing through extreme illness/injury
- Bone injuries/stress fractures
- Low heart rate
- Going to the bathroom after meals
- Loss of menstruation
- Social withdrawal

## Implications for Schools

Schools have a role to play in preventing and identifying students with eating disorders. Coaches, trainers, and others working with student athletes are especially important in fulfilling this role (Bonci et al., 2008; Coelho et al., 2014). The National Athletic Trainer's Association provides a major set of guidelines for preventing, detecting, and managing eating disorders (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2231403/>). The association states:

The individual biological, psychological, sociocultural, and familial factors for each athlete with DE [disordered eating] result in widely different responses to intervention strategies, challenging the best that athletics programs have to offer in terms of resources and expertise. The complexity, time intensiveness, and expense of managing DE necessitate an interdisciplinary approach representing medicine, nutrition, mental health, athletic training, and athletics administration in order to facilitate early detection and treatment, make it easier for symptomatic athletes to ask for help, enhance the potential for full recovery, and satisfy medicolegal requirements. Of equal importance is establishing educational initiatives for preventing DE.

School programs focusing specifically on risk factors for athletes are rare. In a recent study, 71% of the 169 participants reported they had not received any education regarding eating disorders; only 7.1% stated that their high school sports team discussed eating disorder topics (Green & Venta, 2018).

In general, school programs related to preventing eating disorders tend to emphasize interventions focused on

- >reducing bullying
- >improving healthy eating
- >enhancing self-acceptance

Recommendations for improving how schools address eating disorders among athletes emphasize a wider range of preventative and corrective measures. These include:

- creating healthy coach-athlete relationships
- shifting coaching style from a performance related/body weight preoccupied style to a more holistic coaching style (celebrating athlete's strengths, developing not only physical, but mental/emotional strength)
- teaching all staff to recognize early stages of an eating disorder and what to do about it
- use of sports physical exams to identify problems related to nutrition, menstruation, bone mineral loss, body image, and other indicators of eating disorders
- administering self-report instruments and having an eating disorder professional analyze them (e.g., see <https://pubmed.ncbi.nlm.nih.gov/26311621/>)
- teaching team members to recognize an eating disorder in a teammate and what to do about it
- demystifying myths surrounding body weight and performance in sports
- teaching about the medical and performance consequences of developing an eating disorder
- teaching staff how to respond to the physical and mental needs of at-risk and symptomatic athletes and advocate for them to receive help
- ensuring staff knows how to report concerns about an athlete and about referral processes
- making information highly visible about how an affected individual can self-access treatment/mental health support

Where significant concerns are raised about a student, (1) clinical interviews can be conducted by a professional with eating disorders expertise (preferably one with experience with athletes) and (2) referrals for intervention can be made as necessary. It is recognized that intervention efforts may vary with the nature and demands of a particular sport.

## Ashley Johnson Reports Her Personal Experience

Growing up as an athlete, I never received formal education about eating disorders until I began competing at the collegiate level. My high school had a competitive and well-known track and field program, which meant I was surrounded by incredible, competitive athletes at all times. I did not know much about eating disorders going into high school, because I was never taught about them. With this lack of education, I failed to notice how badly some of my best teammates were struggling with severe eating disorders when I got to high school. When topics were brought up concerning how skinny girls looked, or them worrying about others not eating enough, the subject immediately got brushed off. Stigma and shame surrounded these types of conversations, with worries never turning into anything more than whispers. My coach never made nutrition a huge topic of conversation, and there were no efforts at my high school to educate athletes on mental or physical health topics. It was normal for girls to talk about how they hadn't gotten their period in months, or how they were losing weight as they started running more. There was no education or support in helping the athletes at my school realize that those are not normal things for athletes to go through- those things are detrimental to an athlete's health and are signs of under-fueling or overexercising. There was little to no nutrition and eating disorder prevention and recognition education in both my middle and high schools, as a student or as an athlete, which is alarming as eating disorders are becoming more and more of an issue in nonathletes, and especially athlete's lives.

## Concluding Comment

Schools, athletic departments, coaches, and other athletic personnel must always be sensitive to students problems and work to enhance supports that effectively prevent and respond.

At the same time, our Center emphasizes that advocacy for a *special initiative* focused on eating disorders will simply add to the fragmentation and marginalization of efforts to support all students. Rather than adding another problem-specific initiative, we detail how the focus on concerns such as eating disorders can be readily embedded into a unified, comprehensive, and equitable system of student/learning supports (see <http://smhp.psych.ucla.edu/pdfdocs/mh20a.pdf>).

## Eating Disorders Helpline

Call (800) 931-2237 – Monday—Thursday 11am—9pm ET Friday 11am—5pm ET  
Translation services are available on the phone.

Online Chat – Monday—Thursday 9am—9pm ET Friday 9am—5pm ET  
<https://www.nationaleatingdisorders.org/helplinechat>

Text – (800) 931-2237 Monday—Thursday 3pm—6pm ET Friday 1pm—5pm ET  
Standard text messaging rates may apply.

## Some Organizations Focusing on Eating Disorders with a Focus on Athletes

- >Association for Applied Sport Psychology -  
<https://appliedsportpsych.org/about-the-association-for-applied-sport-psychology/special-interest-groups/eating-disorders/>
- >National Eating Disorder Association -  
<https://www.nationaleatingdisorders.org/eating-disorders-athletes>
- >National Association of Anorexia Nervosa and Associated Disorders -  
<https://anad.org/get-informed/athletes-and-eating-disorders/>
- >Eating Disorder Hope -  
<https://www.eatingdisorderhope.com/risk-groups/eating-disorder-athletes>

## A Few Additional Resources

- >Helping an Athlete with Bulimia -  
<https://www.eatingdisorderhope.com/information/bulimia/bulimia-in-athletes>
- >Tackling Eating Disorders in Athletes -  
<https://patient.info/news-and-features/eating-disorders-in-sport-why-are-they-so-common-and-how-can-we-tackle-them>
- >Resources for Athletic Directors, Coaches, & Trainers -  
<https://eatingdisorders.ucsd.edu/resources/athletics-resources.html>
- >Resources for Athletes with Eating Disorders -  
<https://eatingdisorder.care/athlete-edge/resources/>
- >Specialized Treatment for Athletes with Eating Disorders -  
<https://anad.org/get-informed/specialized-treatment-athletes/>
- >Example Educational Website for School Districts  
<https://www.livermoreschools.org/site/Default.aspx?PageID=8064>

For more, see our Center's Online Quick Find on Eating Disorders:  
[http://smhp.psych.ucla.edu/qf/p3006\\_01.htm](http://smhp.psych.ucla.edu/qf/p3006_01.htm)

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