

CLEMSON UNIVERSITY ATHLETIC DEPARTMENT

EATING DISORDER MANAGEMENT

EDUCATION
PREVENTION
RECOGNITION
TREATMENT

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CLEMSON UNIVERSITY ATHLETIC DEPARTMENT

EATING DISORDER MANAGEMENT

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Eating Disorders: Guidelines for Management

I INTRODUCTION AND DEFINITION OF THE ISSUE

a. Disordered Eating Vs Eating Disorder in Athletes

- Disordered eating occurs on a spectrum ranging from caloric or nutrient restriction to pathogenic caloric control behaviors (laxative use, purging, etc.).
- Disordered eating does not necessarily indicate anorexia nervosa or bulimia nervosa – two well-defined eating disorders. Disordered eating indicates that the athlete is not obtaining sufficient calories and adequate nutrients to support daily and athletic activities.
- Many athletes have ritualistic dietary practices to support their training regimes and to maintain optimal body composition for their sport, however, often what starts as simply monitoring the amount and timing of food intake progresses into restricting foods such as fats from their diet; to restricting performance foods; and eventually evolve into an eating disorder.
- Eating disorders such as anorexia nervosa and bulimia nervosa are psychiatric disorders with distortion of body image, significant health complications, and in the case of untreated anorexia nervosa, a 12-18% mortality rate. There is a 25% suicide rate for those with eating disorders.
- The prevalence of disordered eating is 16-72% in female athletes. (The widely reported range is due to inaccurate self-reporting; and variance by sport).
- Many athletes do not feel that disordered eating practices are harmful, and will therefore, not self-report.
- One of an athlete's greatest fears is to be withheld from competition, and this may impact their willingness to seek help.
- Athletes most susceptible to disordered eating, and potentially an eating disorder are those in the following sports:
 - a. Those where performance is subjectively scored (e.g. gymnastics, diving, dance)
 - b. Endurance sports emphasizing a low body weight (e.g. distance running, cross-country running)
 - c. Sports requiring body contour-revealing clothing for competition (e.g. volleyball, swimming and diving, running, track and field, cheering)
 - d. Sports using weight classifications for participation (e.g. wrestling, rowing)
 - e. Sports emphasizing a pre-pubertal body type for performance success (e.g. diving, gymnastics).

b. Female Vs Male Athletes

- The female athlete is at higher risk for developing an eating disorder than the general population.
- The female collegiate athlete, as a woman is already under considerable societal pressure to be thin and to fit a certain (often unrealistic) body image. Add to this the demands of her sport; the pressure of adjusting to being a collegiate student-athlete; and often the requirement to wear a revealing uniform, result in this segment of the population being particularly vulnerable to disordered eating practices.
- While 90-95% of eating disorders occur in female athletes, 5-10% do so in males.
- The male sports with the highest number of participants with eating disorders are: wrestling and cross-country.
- The female sports with the highest number of eating disorders (in descending order) are: cross country, gymnastics, swimming, track and field events.
- It is thought that the athlete's desire to be more appealing to their peers; fans; coaches, and their fear of being cut from the team if desirable body weight is not achieved, are two significant causes for the development of eating disorders in athletes.

c. The Female Athlete Triad

This is a serious syndrome consisting of disordered eating, amenorrhea and osteoporosis.

Disordered eating.

This is a continuum of practices ranging from poor nutrition to pathological eating behaviors.

Amenorrhea.

Although menstrual irregularities can occur in the absence of eating disorders, amenorrhea is a common symptom of eating disorders. In the college-aged female student-athlete characteristics of amenorrhea is the absence of three or more consecutive menstrual cycles after menarche.

Osteoporosis.

A disease characterized by low bone mass and structural loss of bone tissue leading to a frail skeleton and increased fracture risk.

These three components are interrelated in etiology, pathogenesis and consequences. The Triad can result in declining physical performance as well as significant physical and psychological health problems.

The Athletic Department needs to create a non-judgmental /non-punitive environment so that athletes with eating disorders come forward to seek help and do not fear reprisals once they do so.

II. CHARACTERISTICS OF THE EATING DISORDERS

Anorexia Nervosa

- Intense fear of being overweight or being “fat”.
- Feeling “fat” or “overweight” despite normal or low body weight.
- Refusal to maintain normal body weight for height, age, body type and activity level.
- In females, loss of menstruation post-menarche.
- Exercising in excess of normal workouts.

Bulimia Nervosa

- Eating large quantities of food in a short period of time, often secretly, without regard to feelings of fullness or hunger.
- Feeling “out of control” while eating large quantities of food.
- Binges are followed with some form of compensatory behavior such as purging (vomiting, use of laxatives/diuretics) or excessive and obsessive exercising.
- Extreme concern with body weight or shape.
- Individual is often of normal, or slightly overweight.

Binge Eating Disorder

- Similar to bulimia nervosa, with the exception that the individual *does not purge*.

*Purging Disorder**

- Similar to bulimia nervosa, with the exception that the individual does not overeat.
- Individual feels compelled to purge, usually by spitting or vomiting, often after eating even small amounts of food.
- Individual is usually of normal weight.

* NOTE: Not yet diagnosed by the American Psychiatric Association as an Eating Disorder

III. HEALTH RISKS ASSOCIATED WITH EATING DISORDERS and Potential Impact on Performance

Anorexia Nervosa

- Abnormally slow heart rate and low blood pressure (indicates that the smooth muscle of the cardiovascular system is being affected). The risk for heart failure increases as the heart rate and blood pressure sink lower and the condition remains undetected / untreated.
 - Loss of endurance; slower times.
- Muscle loss and weakness.
 - Increased incidence of muscle tears; slow recovery.
- Fainting, fatigue and overall weakness.
 - Inability to practice / compete at expected levels. Poor recovery.
- Bone loss that will eventually result in osteoporosis.
 - Increased incidence of fractures.
- Severe dehydration that will eventually lead to kidney failure.
 - Increased cardiovascular stress; increased susceptibility to heat illness; overall deterioration of performance.
- Dry skin and hair; hair loss.
- Growth of a downy layer of hair over the body, including the face. This is a protective mechanism of the body to maintain warmth.
 - Increased susceptibility to environmental changes; inability to warm-up.
- Psychological problems.

Bulimia Nervosa

- Dehydration and sodium/potassium loss as a result of vomiting.
 - Electrolyte imbalances that can lead to irregular heartbeats; cardiovascular stress; possibly heart / kidney failure and death.
 - Muscle cramping.
- Potential of gastric rupture during periods of bingeing.
- Inflammation and possible rupture of the esophagus from frequent vomiting.
 - Inability to obtain adequate calories at right time to support athletic activity.
- Tooth decay and staining from stomach acids released during frequent vomiting.
- Chronic irregular bowel movements and constipation as a result of laxative abuse.
- Peptic ulcers and pancreatitis.
- Psychological problems.

Purging Disorder

The dangers of purging disorder are similar to bulimia:

- Dehydration
- Electrolyte imbalances
- Erosion of tooth enamel
- Psychological problems

Binge Eating Disorder

This disorder is less frequently observed in athletes who are more likely to purge their excessive eating to maintain their athletic body image. The health risks of this disorder are typically associated with obesity.

- High blood pressure.
- High cholesterol levels.
- Elevated risk for heart disease due to atherogenic lipid profile,
- Secondary diabetes and gall bladder disease.

IV. PREVENTION AND TREATMENT PROTOCOL

a. Primary Prevention

Efforts should be made to prevent the occurrence of eating disorders before they begin. The following steps should be taken by the Athletic Department, coaches, medical staffs and all others interacting with student-athletes.

	Steps Towards Primary Prevention
Athletic Department	<ul style="list-style-type: none"> • Provide educational materials on the <i>Performance</i> webpage including information to dispel myths on body weight, body composition and athletic performance. • Create a caring, confidential, supportive environment where the student-athlete is encouraged to seek help and does not risk reprisal once they do so. • Educate coaches, administrators, academic advisors, student-athletes and others on disordered eating and eating disorders. • Provide accurate and practical information on nutrition. • Do not support the provision or ingestion of non-approved nutritional supplements.
Coaches	<ul style="list-style-type: none"> • Become educated in the signs, symptoms and dangers of disordered eating and eating disorders, particularly if you are the coach of an at-risk sport. • Report concerns to your athletic trainer or the Director of Performance. • Do not preach that thinness=winning. • Do not do group weigh-ins, or post body weight or composition. • Do not identify individuals as having weight “problems” in front of a group. • Recognize individual personality differences and the impact your comments may have on certain individuals. Making unspecified weight control comments may lead to an athlete losing the weight at all costs. • Do not assume that weight loss will enhance performance. Emphasize performance over body weight. • Be realistic in expectations of your athletes – expect excellence, not perfection. • Encourage athletes to discuss nutritional and / or menstrual concerns with the physician, athletic trainer or Director of Performance – with whomever they are most comfortable. • Understand why weight is such a sensitive and personal issue for many, particularly women. • Be a healthy role model.
Medical / Training Staff	<ul style="list-style-type: none"> • Coordinate a screening process to identify athletes at-risk. • Identify risk factors during the pre-participation physical (to include menstrual H_x, nutritional practices and a routine psychological and social H_x). • Openly speak with student-athlete on apparent risk factors. • Physician shares concerns with sports-specific athletic trainer and Director of Performance to initiate targeted, yet unobtrusive monitoring for visible signs or possible progression of disorder. • Do not immediately curtail athletic participation, unless warranted by a medical condition. • Be watchful of athletes held out of activity for a period of time due to an injury. Guilt at not being able to help the team may lead to unhealthy behaviors in an effort to quickly return to play. • A student-athlete who self-declares, or who obviously has an eating disorder will be referred to Redfern Health Center by the physician.
Others (Strength training, academic advisors, administrators, teammates, etc.)	<ul style="list-style-type: none"> • Become educated on the signs and symptoms and dangers of disordered eating and eating disorders. • Be alert to risk factors for disordered eating / eating disorder behaviors. • Discuss concerns with the Director of Performance or athletic trainer.

b. Targeted Prevention through Recognition of Signs and Symptoms

Efforts should be made to identify symptoms of disordered eating before they become serious problems. Many athletes with serious eating problems can perform well for a period of time before the disorder becomes manifest. Because of this, the coach and medical staff may not be aware of a problem. Eventually however, the disorder will affect the athlete physically and psychologically. A failure to recognize the warning signs of an eating disorder results in delayed treatment, thereby putting the athlete at greater health risk.

It is **important** that the medical staff recognizes risk factors for the spectrum of disordered eating.

It is **desirable** that the coach / academic advisor / others involved with the student-athlete on a daily basis recognize risk factors for the spectrum of disordered eating.

Risk Factors and Symptoms of Eating Disorders

The fact that the athlete displays some of the characteristics / symptoms listed below does not confirm that they have an eating disorder. However, the likelihood increases as more signs and symptoms are observed.

Predisposing Risk Factors

- Chronic dieting
- Low self-esteem
- Family dysfunction
- Perfectionism
- Lack of nutrition knowledge, OR obsession with nutrition

Predisposing Risk Factors Related to Sports Participation

- Emphasis on body weight for performance and/or appearance
- Pressure to lose weight from parents, coaches, judges, roommates, teammates and significant others
- Drive to win at any cost
- Self-identity as an athlete only
- Sudden increase in training
- Exercises through injury (does not report severity)
- Over-trained and undernourished
- Traumatic event (e.g. loss of coach, teammate)
- Vulnerable times (e.g. adjustment to college)

Common Signs and Symptoms of Eating Disorders

Physical / Medical

- Amenorrhea
- Dehydration
- Gastrointestinal problems
- Hypothermia
- Stress fractures (and overuse injuries)
- Significant weight loss
- Muscle cramps, weakness or fatigue
- Dental and gum problems

Psychological/Behavioral

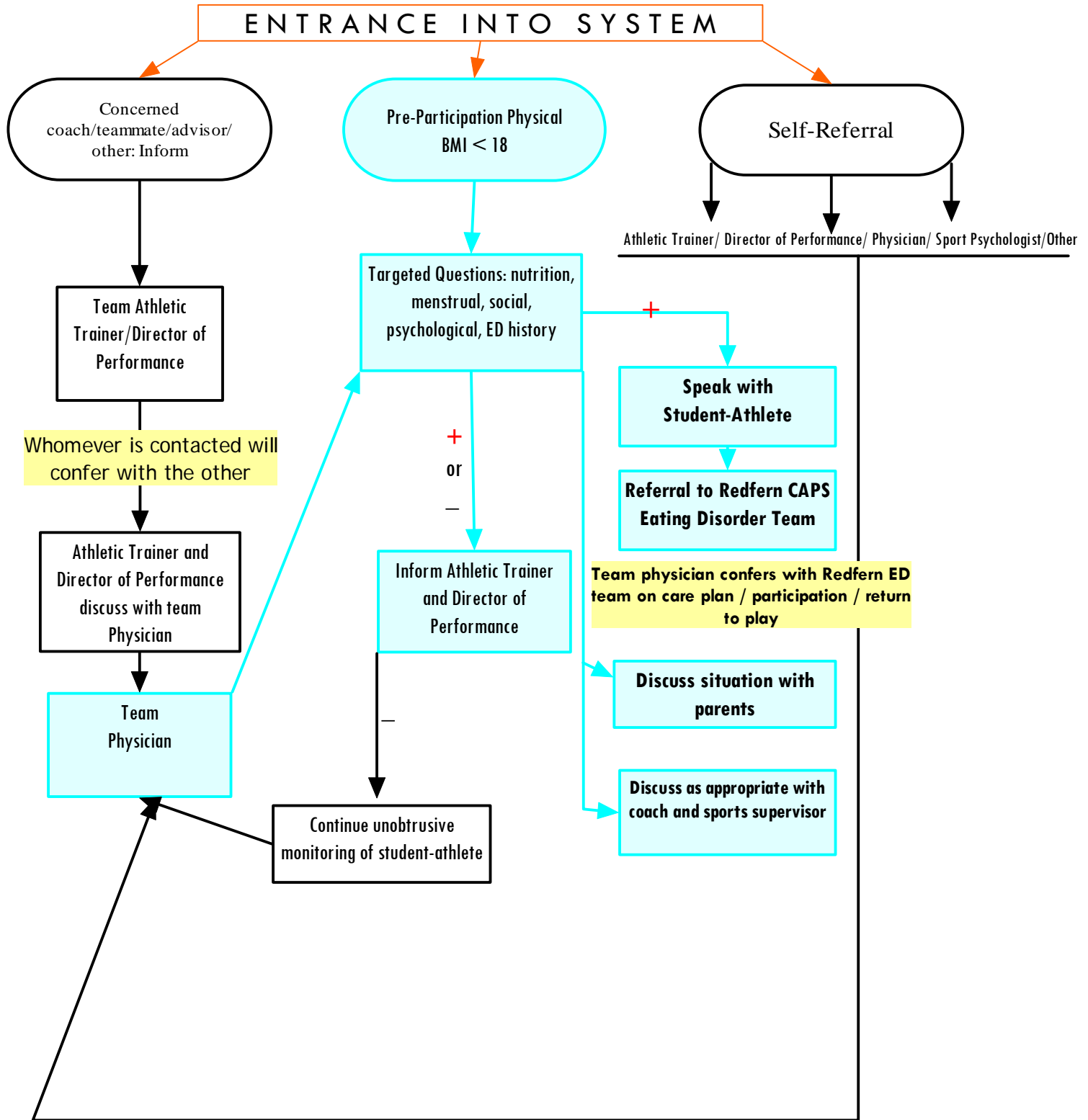
- Anxiety and/or depression
- Claims of “feeling fat” despite being thin
- Excessive exercise (beyond that required for practice and competition)
- Excessive use of bathroom (particularly after eating, although not exclusively)
- Unfocused, difficulty concentrating
- Preoccupation with weight and eating
- Avoidance of eating and eating situations (e.g. not wanting to eat with team)
- Use of laxatives, diet pills, weight loss supplements etc.

Behaviors Related to Specific Eating Disorders Common in Athletes

Anorexia Nervosa	Bulimia Nervosa	Purging Disorder
<ul style="list-style-type: none"> • Dramatic weight loss • Preoccupation with weight, food, calories, fat grams and dieting • Refusal to eat certain foods • Frequent comments about being fat • Anxiety about gaining weight • Denial of hunger • Claims of “already eaten” to avoid eating e.g. with team • Development of food rituals e.g. extended chewing, cutting food into small pieces, moving food around plate, etc. • Excessive, rigid exercise routine despite weather, fatigue, illness, etc. • Withdrawal from usual friends/activities 	<ul style="list-style-type: none"> • Binge eating • Purging behaviors-laxatives, diuretics, vomiting • Smell of vomit • Frequent trips to bathroom • Excessive rigid exercise to “burn off” calories • Unusual swelling of cheeks or jaw area • Calluses on backs of hands (self-induced vomiting) • Discoloration or staining of teeth • Complex lifestyle patterns to accommodate binge-purge sessions • Withdrawal from usual friends/activities • Feelings of disgust, self-loathing 	<ul style="list-style-type: none"> • Purging behaviors – usually spitting or vomiting after eating only a small or normal amount of food • Feeling of fullness even after small amounts of food • Strict rules about what can be eaten and when

The steps outlined in the Primary Prevention table carry over into this secondary prevention phase – once an eating disorder is suspected – these steps are valuable in limiting its progression, but added to these will be the need to refer for treatment.

REFERRAL AND TREATMENT PROTOCOL



Legend

- = Team Physician Actions
- = ED not confirmed/immediately evident / admitted
- + = ED confirmed / apparent / admitted

WHAT TO DO IF YOU SUSPECT A TEAMMATE HAS AN EATING DISORDER

Why might you suspect?

As a teammate / roommate you might be the first to suspect that a fellow student-athlete has the risks for, or actually has an eating disorder. You might notice, or hear them comment on some of the following:

- Repeated comments about being fat or feeling fat, and questions such as “do you think I look fat” when weight is below average.
- Weight loss below ideal competitive weight that continues out of season.
- Secretive eating, perhaps noted by food wrappers in bedroom, locker, or stuffed down the sofa; or sneaking food from the dining hall.
- Spreading food around the plate; “playing” with food.
- Repeated disappearing immediately after eating, whether or not a substantial amount of food was eaten.
- Apparent nervousness or agitation if something prevents their ability to be alone after eating.
- Claiming to have already eaten to avoid eating with the team.
- Bloodshot eyes, especially after being in the bathroom or any other place where vomiting could have occurred.
- Vomitous odor or vomit in toilet, sink, shower, or wastebasket (when there is no apparent illness or overindulgence in alcohol).
- Extreme weight fluctuations.
- Complaints or evidence of bloating / water retention not explained by PMS or other known medical conditions.
- Frequent complaints of constipation.
- Lightheadedness, loss of balance, mood swings not accounted for by other causes (medical; relationship break-up).
- Exercising in excess of that involved in practice and competition.

What to do?

- If you are not that close to your teammate, but are concerned: share your concerns with your team Athletic Trainer, the Director of Performance, or the Team Physician – whomever you are more comfortable in approaching (each of these individuals will confer with each other eventually).
- If you *are* close to your teammate, you can set aside time, alone to speak with them. Be respectful and discuss your concerns openly and honestly in a caring and supportive way.
- Do not attempt to diagnose or offer counsel on how your teammate should handle their apparent problem.
- Do not discuss body weight or eating habits.

- Communicate your concerns – relate to specific incidents where because of behaviors you became concerned about your teammate’s health and wellbeing. Explain that you think these things might indicate your teammate has a problem for which they need to seek professional help.
- Ask your teammate to explore these concerns with the athletic trainer, director of performance, team physician, sports psychologist, coach, or other individual in the Athletic Department with whom they are comfortable sharing. If you feel comfortable, you could offer to keep your teammate company on that first visit.
- Avoid conflict and anger with your teammate. If they refuse to acknowledge that there is a problem, or assure you that you do not need to be concerned, restate your concern and support, let them know that you are available to talk/listen.
- Avoid placing shame, blame or guilt on your teammate for their actions or attitudes. Do not accuse them of acting irrationally or improperly.
- Express continued support.
- Do not expect your teammate to confide in you right away (if at all).
- If you continue to be concerned about the health and safety of your teammate speak with the athletic trainer, director of performance or physician of your concerns. You can indicate that you are speaking in confidence. You can be assured that none of these individuals will openly confront the student-athlete or coach. The student-athlete will eventually meet with the team physician who will perform an assessment, and together your teammate and the physician will discuss further actions – if necessary.

REFERENCES

Segments from the following sources are included in this paper:

American College of Sports Medicine Position Stand on the Female Athlete Triad.

American College of Sports Medicine Special Communication on Female Issues for the Team Physician: A Consensus Statement

NCAA Manual on Managing the Female Athlete Triad

<http://www.nationaleatingdisorders.org>

http://multimedia.olympic.org/pdf/en_report_517.pdf

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