

September 13, 2018

This week's topic takes on a more serious tone, but it is one that is often overlooked and/or avoided. The discussion surrounding eating disorders is one that deserves to be brought to light, for they are more common than most realize, especially in the world of competitive sports. Eating disorders are not gender specific and are not limited to whose lives they may impact. Anyone can be susceptible to disordered eating and develop an eating disorder, especially with all the misinformation regarding food and nutrition out there, it is important to be educated on the warning signs and relationships with food that you and your loved ones may have.

What is an eating disorder?

An eating disorder is any range of psychological disorders characterized by abnormal or disturbed eating habits ([Merriam-Webster](#)). The three most common eating disorders are anorexia nervosa, bulimia nervosa, and binge eating disorder ([WebMD](#)). While these tend to be the most common types, these are not the only ones. The National Eating Disorder Association (NEDA) recognizes a multitude of eating disorders and their website provides information regarding [each](#). Typically, individuals with eating disorders tend to focus heavily on body image, body weight, and food. Other, less obvious examples of eating disorders are laxative abuse and compulsive exercise.

[Eating Disorders: What are they?](#)

How to identify an eating disorder?

There can be many warning signs for a person developing an eating disorder, but the biggest one to look for is change; change in attitude and behavior towards food and towards themselves/their body image. This video by NEDA describes the warning signs and symptoms of eating disorders.

[Warning signs and symptoms of an eating disorder](#)

Health implications

At first, the physiological changes due to eating disorders may bring about desired (or undesired) changes, but over time the physical consequences will become more severe. The images on the following pages are from the National Eating Disorders Association's website and explain the long-term implications eating disorders can have on one's health.

Athletes and eating disorders

While anyone of any demographic can develop disordered eating, [athletes in particular are at high risk](#), especially those involved in aesthetic sports and sports where weight is a common focus for achieving peak performance. According to the National Eating Disorders Association's website, over one-third of female athletes in the NCAA reported having attitudes and symptoms towards food and body size/shape that put them at risk for anorexia nervosa ([NEDA](#)). While eating disorders are commonly associated with females, males are also at risk, especially male athletes.

In females, one particularly serious implication of restrictive eating behavior can lead to a condition known as the [female athlete triad](#). The video below goes into detail regarding what the triad entails and what should be done if an athlete begins to show symptoms.

[Female Athlete Triad](#)

Preventing eating disorders in all people begins with education. Most people don't realize the long-term implications disordered eating behaviors can have, thus making the effort towards being proactive can help individuals to remain healthy in multiple ways throughout their lives. The website I have been referencing throughout this post—the National Eating Disorders Association (NEDA)—has another great resource for coaches that identifies the various components of identification/prevention, early intervention, treatment, and additional information to help better equip themselves to keep their athletes healthy and safe.

[NEDA Coach & Athletic Trainer Toolkit](#)

Where/how to seek help

If you or a loved one experience disordered eating behavior, it's important to know you are not alone and help is readily available. Even if you don't know where to go or who to talk to, discussing your feelings with a coach or peer can be a great starting place. The NEDA website has a [screening tool](#) for eating behaviors as well as an entire [page](#) dedicated to providing resources and helping you or your loved one get help. As a former teammate, competitor, and current friend/peer, I would be happy to answer any questions or assist anyone with finding more information or help, please don't hesitate to reach out!

CARDIOVASCULAR SYSTEM

- Consuming fewer calories than you need means that the body breaks down its own tissue to use for fuel. Muscles are some of the first organs broken down, and the most important muscle in the body is the heart. Pulse and blood pressure begin to drop as the heart has less fuel to pump blood and fewer cells to pump with. The risk for heart failure rises as the heart rate and blood pressure levels sink lower and lower.
 - Some physicians confuse the slow pulse of an athlete (which is due to a strong, healthy heart) with the slow pulse of an eating disorder (which is due to a malnourished heart). If there is concern about an eating disorder, consider low heart rate to be a symptom.
- Purging by vomiting or laxatives depletes your body of important chemicals called electrolytes. The electrolyte potassium plays an important role in helping the heart beat and muscles contract, but is often depleted by purging. Other electrolytes, such as sodium and chloride, can also become imbalanced by purging or by drinking excessive amounts of water. Electrolyte imbalances can lead to irregular heartbeats and possibly heart failure and death.
- Reduced resting metabolic rate, a result of the body's attempts to conserve energy.

GASTROINTESTINAL SYSTEM

- Slowed digestion known as gastroparesis. Food restriction and/or purging by vomiting interferes with normal stomach emptying and the digestion of nutrients, which can lead to:
 - Stomach pain and bloating
 - Nausea and vomiting
 - Blood sugar fluctuations
 - Blocked intestines from solid masses of undigested food
 - Bacterial infections
 - Feeling full after eating only small amounts of food
 - Constipation, which can have several causes:
 - Inadequate nutritional intake, which means there's not enough in the intestines for the body to try and eliminate
 - Long-term inadequate nutrition can weaken the muscles of the intestines and leave them without the strength to propel digested food out of the body
 - Laxative abuse can damage nerve endings and leave the body dependent on them to have a bowel movement
 - Binge eating can cause the stomach to rupture, creating a life-threatening emergency.
 - Vomiting can wear down the esophagus and cause it to rupture, creating a life-threatening emergency.
 - Frequent vomiting can also cause sore throats and a hoarse voice.
 - When someone makes themselves vomit over a long period of time, their salivary (parotid) glands under the jaw and in front of the ears can get swollen. This can also happen when a person stops vomiting.
 - Both malnutrition and purging can cause pancreatitis, an inflammation of the pancreas. Symptoms include pain, nausea, and vomiting.
- Intestinal obstruction, perforation, or infections, such as:
 - Mechanical bowel problems, like physical obstruction of the intestine, caused by ingested items.
 - Intestinal obstruction or a blockage that prevents food and water from passing through the intestines.
 - Bezoar, a mass of indigestible material found trapped in the gastrointestinal tract (esophagus, stomach, or intestines).
 - Intestinal perforation, caused by the ingestion of a nonfood item that creates a hole in the wall of the stomach, intestines or bowels.
 - Infections such as toxoplasmosis and toxocariasis may occur because of ingesting feces or dirt.
 - Poisoning, such as heavy metal poisoning caused by the ingestion of lead-based paint.

NEUROLOGICAL

- Although the brain weighs only three pounds, it consumes up to one-fifth of the body's calories. Dieting, fasting, self-starvation, and/or erratic eating means the brain isn't getting the energy it needs, which can lead to obsessing about food and difficulties concentrating.
- Extreme hunger or fullness at bedtime can create difficulties falling or staying asleep.
- The body's neurons require an insulating, protective layer of lipids to be able to conduct electricity. Inadequate fat intake can damage this protective layer, causing numbness and tingling in hands, feet, and other extremities.
- Neurons use electrolytes (potassium, sodium, chloride, and calcium) to send electrical and chemical signals in the brain and body. Severe dehydration and electrolyte imbalances can lead to seizures and muscle cramps.
- If the brain and blood vessels can't push enough blood to the brain, it can cause fainting or dizziness, especially upon standing.
- Individuals of higher body weights are at increased risk of sleep apnea, a disorder in which a person regularly stops breathing while asleep.

ENDOCRINE

- The body makes many of its needed hormones with the fat and cholesterol we eat. Without enough fat and calories in the diet, levels of hormones can fall, including:
 - Sex hormones estrogen and testosterone
 - Thyroid hormones
- Lowered sex hormones can cause menstruation to fail to begin, to become irregular, or to stop completely.
- Lowered sex hormones can significantly increase bone loss (known as osteopenia and osteoporosis) and the risk of broken bones and fractures.
- Reduced resting metabolic rate, a result of the body's attempts to conserve energy.
- Over time, binge eating can potentially increase the chances that a person's body will become resistant to insulin, a hormone that lets the body get energy from carbohydrates. This can lead to Type 2 Diabetes.
- Without enough energy to fuel its metabolic fire, core body temperature will drop and hypothermia may develop.
- Starvation can cause high cholesterol levels, although this is NOT an indication to restrict dietary fats, lipids, and/or cholesterol.

[Inside the eating disordered mind](#)

[Risk Factors](#)

[Check out the National Eating Disorders Association's website for more information and resources](#)

As a former competitive athlete, I understand the mental, physical, and emotional stresses of sport and want to reiterate that I am happy to answer any questions or help in any way I can regarding the topic of eating disorders. I know a lot of this post was mainly information from NEDA's website, but this is because I think the association does a great job with providing educational and practical resources. As a former nutrition major, the area of eating disorders was of great interest to me and a lot of the projects and papers I did were on this topic. I am not an expert by any means, but I can help connect anyone to valuable resources, and help answer any questions to the best of my ability. Again, please feel free to reach out, my contact information is:

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