

# The Health Impact of Over-Exercising

## Before Getting Started...

Take a few minutes to discuss the following questions with your nutritionist:

- How do our bodies respond when we don't get enough energy from food for daily activities and exercise?
- What do you think the term "energy deficiency" means?
- When might exercise become harmful to someone's health?

## Over-Exercising and Eating Disorders

Often, teens start playing sports or doing specific exercise routines because it's fun, social, and way to burn off steam from school or other stressful times. Moving your body in some way (whether it's dancing, running, or playing soccer) can be great for your health- it can boost your mood and confidence and improve your sleep and heart health.



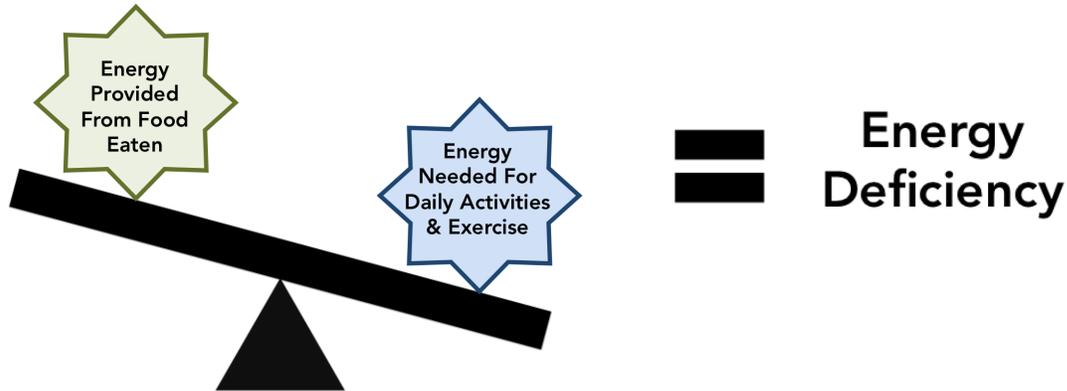
However, exercise can become less enjoyable and more compulsive, obsessive, and punishing when it's taken to the extreme (often called over-exercising). Over-exercising can cause an energy deficiency when teens do not allow their bodies to rest, recover, and refuel with enough energy from food. This can negatively impact teens' physical and mental health in many ways, as shown on the next page.

Disordered eating and eating disorders can be common in teens who over-exercise. Playing sports that focus on physical appearance or weight such as gymnastics, dance, swimming, wrestling, rowing, and running can also increase the risk of developing an eating disorder. Generally speaking, an eating disorder can cause someone to have extreme emotions, attitudes, and behaviors around food, exercise, and/or body image. Research shows people with eating disorders actually have chemical changes in their brain that impact the way they think about food, nutrition, exercise, and their bodies.<sup>1</sup>



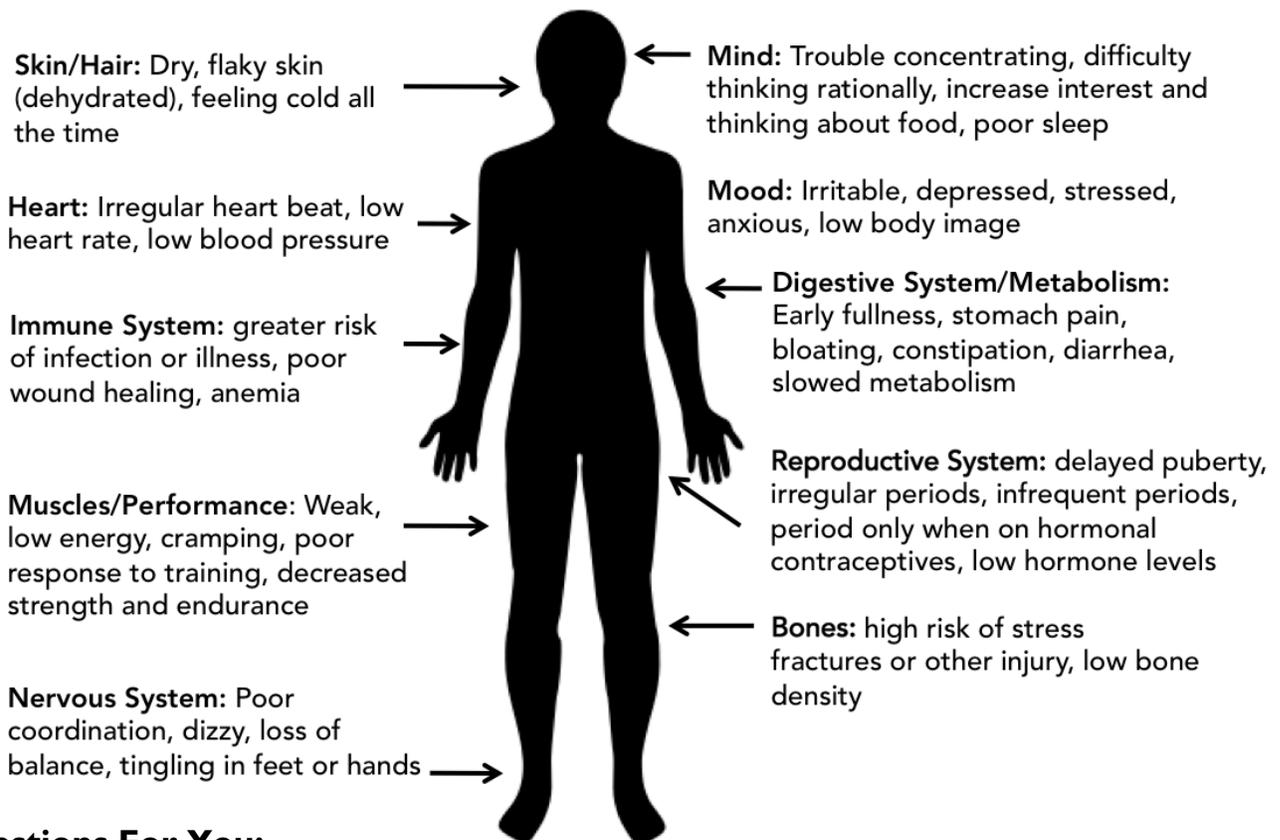
## The Facts on Energy Deficiency

“Low energy availability” and “relative energy deficiency in sport” are terms used to describe a condition where someone is not getting enough energy from food to support the energy needed for daily activities (such as walking to class or brushing your teeth) and exercise. While people of all ages and sizes can have an energy deficiency, it’s common in teens and adults who participate in competitive sports or have intense exercise routines.



Energy deficiency can impact many systems in the body and can have short-term and long-term effects on strength, endurance, sports performance, and overall health.

### Common Signs of Relative Energy Deficiency



#### Questions For You:

- Which of these symptoms have you experienced?
- Why do you think they could be signs of malnutrition?

Since we live in a culture where dieting, fitness, and weight loss are common topics of conversation, it can be hard to know whether eating and exercise habits are healthy or disordered. Below is an overview of some behaviors that could indicate that a teen's eating and exercise habits may be problematic.

## **Signs and Symptoms of Disordered Eating and Over-Exercising:** (Adapted from the National Eating Disorder Association)

- Exercising despite weather, muscle weakness, illness, or injury
- Avoiding social gatherings with friends and family to exercise or exercising in secret
- Following a rigid and intense exercise routine and difficulty being flexible with exercise
- Feeling the need to “burn off” calories by exercising
- Difficulty sitting still for a long time, not allowing self to take rest days from exercise
- Avoiding eating when hungry, skipping meals, or not eating at certain times of the day
- Restricting calories or specific nutrients, cutting out certain foods or entire food groups
- Using gum, “diet” foods, water or other drinks to suppress appetite and hunger
- Using food behaviors to help avoid or restrict eating (ex. excessive chewing, taking small bites, rearranging food on plate, using condiments excessively or in an unusual way)
- Making excuses to avoid mealtimes or situations involving food, cooking meals for others without eating, feeling uncomfortable eating around others
- Being unable to maintain a weight appropriate for age, height, and body frame
- Being preoccupied with thoughts about food, fear of being “fat” or gaining weight
- Checking ingredient lists and nutrition labels compulsively, spending a lot of time reading about nutrition or looking at food or recipes on social media
- Inflexible thinking, need for control over food/exercise, trouble expressing emotions

In contrast, normal eating and healthy exercise are on the other end of the spectrum. While this can look different for everyone, some principles are outlined below:

## **Signs of Normal Eating and Healthy Exercise Habits:**

- Responding to hunger cues and fueling for exercise with enough energy and nutrition
- Being flexible with eating and exercise based on your schedule, mood, and social events
- Exercising in a way that is enjoyable and makes you feel strong and energized
- Trusting your body's ability to regulate your energy needs and weight without rigid exercise routines; taking rest days to recover from exercise or a sports injury
- Spending some time thinking about food and exercise but not being so focused that these thoughts distract you from your other interests and relationships

Disordered eating and compulsive exercise are in the gray area between healthy eating and eating disorders, where someone may identify with some but not all symptoms of an eating disorder. Since disordered eating and compulsive exercise can increase someone's risk of developing an eating disorder, teens who suspect they may have disordered eating or compulsive exercise should share this with their health care provider or a dietitian.

## How Do You Treat an Eating Disorder?

Guidance on eating, exercise, and self-care to support full recovery.

Comprehensive care with support from a medical, mental health, and nutrition specialists.

Restoring metabolism and hunger and fullness cues. Returning to normal eating.

Positive support from friends and family. Boundaries around social media and negative influences.

Fortunately, many of the signs and symptoms of an energy deficiency can be reversed when someone participates in treatment for disordered eating and exercise behaviors to build a healthy relationship with food and their body. The sooner teens start working with a comprehensive care team to address their eating disorder behaviors, the easier it is to treat and fully recover.

### What Does This Mean For Me?

1. Do you think you have any signs of energy deficiency?
2. Where do you think you fall on the spectrum of eating and exercise behaviors?
3. What are some ways you would be comfortable making changes to your eating or exercise?

### To Learn More:

National Eating Disorders Association: [www.nationaleatingdisorders.org](http://www.nationaleatingdisorders.org)

Center For Young Women's Health: [youngwomenshealth.org/nutrition-fitness-index/](http://youngwomenshealth.org/nutrition-fitness-index/)

Center For Young Men's Health: [youngmenshealthsite.org/nutrition-fitness-index/](http://youngmenshealthsite.org/nutrition-fitness-index/)

Thomas J. *Almost Anorexic* (2013).

Lock J, Le Grange D. *Helping Your Teenager Beat an Eating Disorder*. (2015).

### References:

1. Avena, Nicole M., and Miriam E. Bocarsly. "Dysregulation of brain reward systems in eating disorders: neurochemical information from animal models of binge eating, bulimia nervosa, and anorexia nervosa." *Neuropharmacology* 63.1 (2012): 87-96.
2. "Compulsive Exercise" National Eating Disorders Association, 2018, <https://www.nationaleatingdisorders.org/learn/general-information/compulsive-exercise>
3. Statuta, Siobhan M., Irfan M. Asif, and Jonathan A. Drezner. "Relative energy deficiency in sport (RED-S)." *Br J Sports Med* 51.21 (2017): 1570-1571.