

## NUTRITIONAL NEEDS OF INDIVIDUALS AND FAMILIES ACROSS THE LIFESPAN

### Nutrition Issues and Adolescents

Grade Levels: 9-12

**Concept:** Eating Disorders

**Comprehensive Standard:** 6.2 Evaluate the nutritional needs of individual and families in relation to health and wellness across the lifespan

**Technical Standard:** 6.2.3 Assess the impact of food and fad diets, eating habits, and eating disorders on wellness

#### LESSON COMPETENCIES:

- Define eating disorders
- Identify the warning signs of eating disorders
- Demonstrate strategies for communicating with those suffering from an eating disorder
- Explore the impact of eating disorders on health

#### Anticipated Behavioral Outcomes:

- Students choose foods from *MyPyramid* as a part of healthy weight management.
- Students recognize the warning signs eating disorders and take action when they suspect a peer has an eating disorder.

#### Resources Needed:

- Copies of all handouts for students
- Copy of transparency master
- Internet Access for all students

#### References for teachers and students:

A wealth of information related to eating disorders and body image is available at the following website: [http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=337](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=337)

Another excellent website with information on eating disorders and treatment is ANRED: *Anorexia Nervosa and Related Eating Disorders, Inc.* at [www.anred.com](http://www.anred.com)

An *Eating Disorders Awareness* Website is an excellent site developed by adolescents for adolescents. It has a wealth of well-researched and documented information on body image, healthy eating and eating disorders. It is available at <http://library.thinkquest.org/27755/>.

The *Something Fishy Website on Eating Disorders* at [www.something-fishy.org](http://www.something-fishy.org) provides information on eating disorders to support individuals and their families.

A lesson plan, "Dying to Be Thin", that corresponds with a *New York Times* article on bone damage and anorexia can be found at the following website: [www.nytimes.com/learning/teachers/lessons/20001121tuesday.html](http://www.nytimes.com/learning/teachers/lessons/20001121tuesday.html)

You can view several segments of a Public Broadcasting System series on eating disorders called *Dying to Be Thin* at [www.pbs.org/wgbh/nova/thin](http://www.pbs.org/wgbh/nova/thin). This site also includes lesson ideas to accompany the video segments. You must have either *Quick Time* or *Real Player* software to view these videos.

A booklet on Eating Disorders (2001) is available from the *National Institute of Health*. It is available online at <http://www.nimh.nih.gov/publicat/eatingdisorders.cfm>

The *Dairy Council of California* ([www.dairycouncilofca.org/](http://www.dairycouncilofca.org/)) also has a lesson plan, handouts and resources on body image at [www.dairycouncilofca.org/edu/edu\\_prog\\_body2.htm](http://www.dairycouncilofca.org/edu/edu_prog_body2.htm)

A WebQuest on Eating Disorders developed by a family and consumer sciences teacher can be found at <http://coe.west.asu.edu/students/jklein/eatingdisorderwq.html>. Be sure to check all Internet links before using.

**NEW** Download a copy of the *BodyWise Handbook*. The BodyWise packet is customized for school personnel and contains fact sheets designed for teachers, nurses, coaches, and other educators, as well as resource lists. The fact sheets include suggestions for integrating eating disorders prevention into existing curricula and for initiating school-wide activities to promote prevention of unhealthy eating and preoccupation with body weight. <http://www.4women.gov/bodyimage/kids/bodywise/>. The site also has a download called "Eating Disorders and Obesity: How Are They Related?"

**NEW** The *National Institute of Mental Health* (<http://www.nimh.nih.gov/health/publications/eating-disorders/summary.shtml>) website has information on eating disorders, especially regarding the area of treatment.

**NEW** *Medline Plus*, a service of the *National Library of Medicine* and the *National Institutes of Health*, website has links to several articles and resources on the topic of eating disorders. <http://www.nlm.nih.gov/medlineplus/eatingdisorders.html>

**NEW** There are several WebQuests available online on the topic of eating disorders. One that is well done and linked to standards can be accessed at [http://jabiddle.iweb.bsu.edu/old\\_portfolio/Portfolio/Technology/edwebquest/intro.html](http://jabiddle.iweb.bsu.edu/old_portfolio/Portfolio/Technology/edwebquest/intro.html). Be sure to contact the author before using.

**NEW NOTE TO TEACHER:** Be sure to use caution when asking allowing teens to conduct research on this topic using the World Wide Web.

Web sites that promote anorexia and bulimia are used by a significant number of adolescents with eating disorders, according to a study from Stanford and Lucile Packard Children's Hospital (LPCCH) researchers, presented at the Pediatrics Academic Societies 2005 annual meeting.

Teenagers use the sites to chat about weight loss and find tips on how to hide their food-avoidance behavior from friends and family, the study found. It also found that teenagers who use the sites spend less time on homework and more time in the hospital than peers who do not use these sites.

(<http://www.contemporarypediatrics.com/contpeds/article/articleDetail.jsp?id=161971> )

## Background Information:

### Definitions:

Eating Disorder – a psychiatric illness with specific criteria

Disordered Eating – refers to troublesome eating behaviors, such as restrictive dieting, bingeing or purging, which occur less frequently or are less severe than those required to meet the full criteria diagnosis for an eating disorder.

According to the *American Psychiatric Association*, a person diagnosed as bulimic or anorectic must have all of the disorder's specific symptoms:

#### Anorexia Nervosa

- refusal to maintain weight that's over the lowest weight considered normal for age and height
- intense fear of gaining weight or becoming fat, even though underweight
- distorted body image
- in women, three consecutive missed menstrual periods without pregnancy

#### Bulimia Nervosa

- recurrent episodes of binge eating (minimum average of 2 binge-eating episodes a week for at least three months)
- a feeling of lack of control over eating during the binges
- regular use of one or more of the following to prevent weight gain: self-induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorous exercise
- persistent over-concern with body shape and weight

Eating is influenced by many factors, including appetite, food availability, family, peer and cultural practices and attempts at voluntary control. Eating disorders involve serious disturbances in eating behavior, such as extreme and unhealthy reduction of food intake or severe overeating, as well as feelings of distress or extreme concern about body shape or weight. (National Institute of Health)

Eating disorders are **not** due to a failure of will or behavior, they are treatable medical illnesses in which certain maladaptive patterns of eating take on a will of their own. (National Institute of Health)

According to the *American Dietetic Association* (1998), more than 5 million Americans suffer from eating disorders. Five percent of females and 1% of males have anorexia nervosa, bulimia nervosa or binge eating disorder. It is estimated that 85% of eating disorders have their onset during the adolescence.

## Learning Activities:

### Middle School Level

- KWL Chart – Ask students to complete a KWL chart on Eating Disorder to determine what students already know what misinformation is found on their charts and what they would like to know about eating disorders. Discuss the charts with students after they have been completed. Students should complete only the “K” and “W” columns at the beginning of this area of study. After completing all class activities, ask the students to complete the “L” column.
- Complete [\*The Eating Disorders Subject Sampler\*](#)

**NOTE TO TEACHER:** You may want to divide the class into groups with each group completing the questions for one issue. Each group could then report back to the class with their answers. Discuss findings with students.

- Invite a health professional as a guest speaker to discuss eating disorders and answer students' questions.

### **High School Level**

- Using the overhead transparency, [\*Truth or Myth\*](#), ask students to identify each statement about eating disorders as a truth or myth. Discuss misconceptions related to eating disorders by providing information to dispute the myths. This information is found on the answer key for this activity.
- Students complete a [\*research project\*](#) on an eating disorder topic of their choice; guidelines for this project are included. Students present their reports as illustrated talks following guidelines for the FCCLA Illustrated Talk STAR event.
- Ask students to complete the assignment, [\*A Friend in Need\*](#) to assist them in communicating with friends/peers who may suffer from an eating disorder
- The WebQuest on Eating Disorders (see references) could be used as an alternative to the above activities.

### **Extended Activities:**

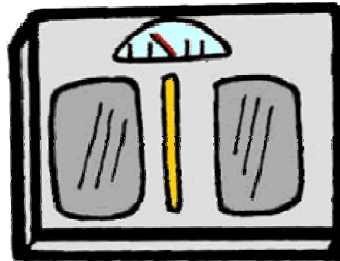
**\* Debate the topic “Should Insurance Companies Cover the Cost of Treatment for Eating Disorders” OR Develop a position paper/op ed article** presenting a case as to why insurance companies should fund treatment for eating disorders. Publish your papers in the school and/or local community newspaper.

- **Eating Healthy Awareness Day** – Host a school-wide event with speakers, booths and activities on healthy weight management, eating disorders, nutritious snacking, body image and healthy weight loss.

### **Academic Connections - NEW**

- ✓ **Economics** - Costs to Society – Research the economic costs of treating eating disorders; consider costs of treatments, lost time at work, etc.
- ✓ **English/Communication** – As a part of a persuasive writing lesson, ask students to write letters to the editor addressing the question of - Should insurance companies cover the cost of treatment of eating disorders?

# Subject Sampler: Eating Disorders



## Introduction

The following links come from all over the World Wide Web and include information about a variety of issues related to Eating Disorders. You may complete the following Internet activities alone or working in a group as directed by your teacher. You may complete all or only some of the activities related to your goals related for the study of Eating Disorders.

The purpose is to give you a sampling of some of the issues related to Eating Disorders. Each of the activities asks you to explore Eating Disorders. Good luck and see what you learn about eating disorders!

## Activities

### Defining Eating Disorders and Warning Signs

Anorexia Nervosa and Related Eating Disorders, Inc.

[www.anred.com](http://www.anred.com)

1. What is an eating disorder?
2. What are the 3 most common eating disorders and what are the characteristics of each?
3. The warning signs for these eating disorders fall under several categories: food behaviors, appearance and body image behaviors, exercise behaviors, thoughts and beliefs, feelings and social behaviors. Identify 3 warning signs in each category.

### Health Risks Related to Eating Disorders

National Eating Disorders Organization

[www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=294](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=294)

4. What are the health risks associated with anorexia?
5. What are the health risks associated with bulimia?
6. What are the health risks associated with binge eating disorder?

## **Treatment of Eating Disorders**

Something Fishy Website on Eating Disorders      [www.something-fishy.org](http://www.something-fishy.org)

7. Identify 5 health professionals who might be involved in the treatment of an eating disorder and list what areas they are trained in.
8. When is hospital-based care necessary?

## **“TRUTH OR MYTH?”**

- 1. The causes of eating disorders are complex and involve social, psychological and genetic factors.**
- 2. Eating disorders are most common among teens and young adults.**
- 3. The three most common eating disorders are anorexia nervosa, bulimia nervosa and binge eating.**
- 4. People with anorexia or bulimia may over exercise.**
- 5. There are no cases of males with eating disorders.**
- 6. Treatments of eating disorders involve several different health professionals.**
- 7. Eating disorders can result in serious health consequences including death.**
- 8. Some athletes are susceptible to eating disorders due to their training regimens.**
- 9. Men are more likely than women to seek help for eating disorders.**
- 10. The pressures of a culture that promotes “thinness” and the “perfect body” contribute to causing eating disorders.**

### **"TRUTH OR MYTH?" ANSWER KEY**

1. The causes of eating disorders are complex and involve social, psychological and genetic factors.  
**True:** Eating disorders are complex conditions that arise from a combination of long-standing behavioral, emotional, psychological, interpersonal and social factors. These include but are not limited to low self esteem, feelings of inadequacy, troubled family relationships, history of abuse, cultural pressures, biological causes and others. ("Causes of Eating Disorders" Fact sheet from the *National Eating Disorders Association*, [http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=337](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=337))
2. Eating disorders are most common among teens and young adults.  
**True:** Nine out of every 10 cases are found among girls and young women. ("Eating Disorders Information for Middle School Personnel" from the *Office on Women's Health*, 2000)
3. The three most common eating disorders are anorexia nervosa, bulimia nervosa and binge eating.  
**True:** The term "eating disorders" has come to mean anorexia nervosa, bulimia nervosa, and binge eating. However, there are many lesser known eating disorders such as anorexia athletica (compulsive exercising), night-eating syndrome, Prader-Willi syndrome, Pica and others. (ANRED: *Anorexia Nervosa and Related Eating Disorders, Inc.* [www.anred.com](http://www.anred.com))
4. People with anorexia or bulimia may over exercise.  
**True:** Over exercising is when someone feels driven to exercise as a way to burn calories from food that he or she has just eaten. People with anorexia or bulimia may over exercise. ("Eating Disorders Information Sheet" from the *Office on Women's Health*, 2000)
5. There are no cases of males with eating disorders.  
**False:** Males account for 5 to 10 percent of bulimia and anorexia cases ("One the Teen Scene: Eating Disorders Require Medical Attention", [www.fda.gov](http://www.fda.gov)). Approximately 10% of eating disordered individuals coming to the attention of health care professionals is male ("Research on Males and Eating Disorders" fact sheet from the *National Eating Disorders Association*, [http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=285](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=285))
6. Treatments of eating disorders involve several different health professionals.  
**True:** Typically care is coordinated by a licensed health care professional including but not limited to a psychologist, psychiatrist, social worker, nutritionist/dietitian and/or medical doctor. Treatment may include individual, group or family therapy and medical management. Support groups, nutritional counseling and psychiatric medications under careful medical supervision have also proven helpful for some. ("Treatment of eating



disorders” fact sheet from the *National Eating Disorders Association*,  
[http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=320&Profile\\_ID=41139](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=320&Profile_ID=41139) )

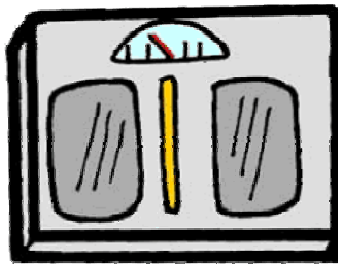
7. Eating disorders can result in serious health consequences including death.  
**True: If untreated, eating disorders may become chronic and lead to severe health problems, even death. About 1,000 people die of anorexia each year according to the *American Anorexia/Bulimia Association*. Other health consequences include: slowed growth and development, wasting of muscle tissue, drop in blood pressure and pulse rate, body organs shrivel, bone density decreases and symptoms of osteoporosis may occur, and others. (*Nutrition and Fitness*, 2000)**
8. Some athletes are susceptible to eating disorders due to the demands of their sport.  
**True: Specific population groups who focus on food or thinness such as athletes, models, culinary professionals as well as young people are at risk for developing an eating disorder (*American Dietetic Association’s* position paper on eating disorders) Gymnastics, cheerleading, dancing, figure skating, diving, swimming, track, wrestling and equestrian sports exert the most risk due to the weight and appearance demands placed on the athletes. (*Position of Eating Disorders Awareness and Prevention, Inc.* and the *American Anorexia/Bulimia Association*, adapted in 1994)**
9. Men are more likely than women to seek help for eating disorders.  
**False: Many men deny they have a problem or are too embarrassed to get help. (“Not for Women Only, Men Too Can Fall Victim to Eating Disorders” Article by Felicity Stone, *HealthScoutNews* Reporter, 2001)**
10. The pressures of a culture that promotes “thinness” and the “perfect body” contribute to causing eating disorders.  
**True: Cultural values that glorify “thinness” and place value on the “perfect body” have been identified as contributing to eating disorders. (“Causes of Eating Disorders” Fact sheet from the *National Eating Disorders Association*, [http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=337](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=337)**

# Eating Disorders Research Project

Name(s) \_\_\_\_\_

**Directions:** Follow the steps below to find out more about a variety of topics related to eating disorders. Be prepared to present an illustrated talk to share the results of your research with your classmates. A scoring rubric for the illustrated talk will be provided by your teacher.

1. Choose one of the following topics for your project:
  - a. Males and eating disorders
  - b. Treatment of eating disorders
  - c. Causes of eating disorders
  - d. Health consequences of eating disorders
  - e. Athletes and eating disorders (wrestlers, figure skaters, gymnasts, dancers)
  - f. Female Athlete Triad
  - g. Less well known eating disorders
  - h. Helping a friend or family member with an eating disorder
  - i. Elderly and eating disorders
  - j. Influence of media
  - k. Related topic of your choice (must be approved by your teacher)
2. Explore all aspects of the issue you choose for your project. Develop an outline for your report and share it with your teacher for approval before proceeding with your research.
3. Follow the criteria for an illustrated talk provided by your teacher.
4. Create at least one poster to accompany your illustrated talk.



## A Friend in Need

Name (s) \_\_\_\_\_

**Directions:** Visit the websites below and use as resources by reading the articles and suggestions listed. Then, read the case study and answer the questions. Develop a plan for Shelly to help Megan.

**Resources:**

- Read the article “I Think My Friend May Have an Eating Disorder. What Should I Do?” [http://www.kidshealth.org/teen/exercise/problems/friend\\_eating\\_disorder.html](http://www.kidshealth.org/teen/exercise/problems/friend_eating_disorder.html)
- Visit the following website: [http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=294](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=294). Click on “Eating Disorders Info” and review the following articles: “How to Help a Friend with Eating and Body Image Issues” ([http://www.nationaleatingdisorders.org/p.asp?WebPage\\_ID=286&Profile\\_ID=41175](http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=286&Profile_ID=41175))

### Shelly and Megan

Shelly is concerned about her friend Megan. Whenever they are talking, the conversation eventually turns to a discussion of food and weight. Megan seems to know the calorie count and number of fat grams of every food she eats and that Shelly eats.

Shelly and Megan always went to the gym for their workouts three-four times a week. Now, Megan is working out every day and often two times a day. Yet, Megan always talks about how fat she is even though she seems to have lost a lot weight. It is hard to tell because she is usually wearing a baggy sweat suit; she says she is always cold.

Shelly has also noticed a bottle of laxatives in Megan’s locker; Megan tried to hide it but Shelly knew what it was. Yesterday, Megan fainted in chemistry class.

1. What do you think is happening with Megan? Identify five things that indicate there is a problem
2. What should Shelly do? Identify three things she could do to help Megan
3. Following the guidelines for what to say to a friend struggling with an eating disorder, write 2 statements that Shelly could use to start a conversation with Megan.
4. On the back of this page, develop a step-by-step plan for Shelly to follow in helping Megan.