## PURDUE VNIVERSITY PURDUE EXTENSION CONSUMER & FAMILY SCIENCES CFS-735-W Healty Body Iwage

## Being an Advocate for Your Child or Grandchild

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There are three companion pieces to this publication:

#### CFS-738-W, Healthy Body Image: Healthy Exercises for Every Body

#### www.ces.purdue.edu/extmedia/CFS/CFS-738-W.pdf

This 17-page publication explains and illustrates various cardiorespiratory, flexibility, and resistance exercises. It also discusses who should get a doctor's advice before beginning an exercise program, lists exercises to avoid, and outlines recommended lifting techniques.

#### CFS-736-W, Healthy Body Image: A Lesson Plan for Middle School Students

#### www.ces.purdue.edu/extmedia/CFS/CFS-736-W.pdf

This 17-page publication provides background information, a lesson plan outline, plus four activities and handouts to teach groups of young teenagers that society often places an unhealthy emphasis on an idealized body image. It teaches that eating nutritious foods and being physically active are the keys to good health.

#### CFS-737-W, Healthy Body Image: A Lesson Plan for High School Students

#### www.ces.purdue.edu/extmedia/CFS/CFS-737-W.pdf

This 17-page publication provides background information, a lesson plan outline, plus four activities and handouts to teach groups of older teenagers that society often places an unhealthy emphasis on an idealized body image. It teaches that eating nutritious foods and being physically active are the keys to good health.



This publication contains four main sections:

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- Part II: Role Modeling a Healthy Body Image, p. 7
- Part III: Providing a Healthy Environment, p. 10
- Part IV: Recognizing Signs of a Possible Eating Disorder, p.14



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## Part I: Understanding Weight-Related Concerns

#### **Objectives**

By the conclusion of Part I, you should be able to:

- List the most healthy and most unhealthy extremes of the five "spectrums" of weight-related behaviors.
- Locate the Web site for the Dietary Guidelines for Americans.
- List and describe several challenges to healthy eating.
- List several common, but unhealthy, weight-control behaviors.
- Briefly describe anorexia nervosa and bulimia nervosa.
- Briefly define "regular eating practices" and give a few examples of how this can be implemented in a youth's daily routine.
- Give some examples of some recommended, healthy physical activities.
- Explain what the term "sedentary" means.
- Briefly explain body mass index (BMI) and give BMI ranges for underweight, normal weight, overweight, and obesity.
- Briefly describe the importance of striving for health regardless of body image.

#### Body image key part of teens' self-esteem

Maintaining a healthy body image is one of the most important drivers of self-esteem among young people. Social pressures (from peers or others) often play a major role in shaping how our children/grandchildren view themselves. Body image dissatisfaction clearly is a problem among children of both genders. Kathy Kater, a body image expert and author, notes that issues involving body image are especially common among women. She cites that as many as 75 percent of adolescent girls feel bad about their bodies and



70 percent say they "feel fat" (Kater, 2005). An estimated 65 percent to 75 percent of American women are dieting to control their weight at any given time.

Helping young people develop a healthy body image, which they may carry with them into adulthood, requires an understanding of a variety of weight-related concerns. Ironically, some of the same root causes that lead some persons into clinical eating disorders and extremely low body weight lead to others becoming overweight or obese. Dianne Neumark-Sztainer, a faculty member and researcher at the University of Minnesota School of Public Health, in her book, *"I'm, Like, So Fat!" Helping Your Teen Make Healthy Choices about Eating and Exercise in a Weight-Obsessed World* (2005), divides weight-related concerns into five categories. These categories, which she refers to as "spectrums," are a range of weight-related behaviors that span from healthy to unhealthy.

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The extremes of the ranges are:

#### MOST HEALTHY

- Healthy eating  $\leftarrow$
- Regular eating practices  $\leftarrow$
- Regular, moderate-intensity exercise  $\leftarrow$ 
  - Healthy weight status  $\leftarrow$

MOST UNHEALTHY

- → Clinical eating disorder(s)
- → Binge eating
- $\rightarrow$  No or excessive exercise
- → Severely over- or underweight
- Satisfied with body image  $\leftarrow \rightarrow$  Dissatisfied with body image

All of us should strive to move toward the most healthy end of these ranges. How you might help your children accomplish this while accomplishing this for yourself is discussed below.

## You and your routines determine eating habits

Ideally, healthy eating is learned at home from role models (such as yourself) and through daily routine. As children grow older they tend to continue routines (including eating) with which they have been raised. An excellent approach to healthy eating is presented in the U.S. Department of Agriculture's Dietary Guidelines (www.health.gov/DietaryGuidelines).

Despite the availability of a vast amount of information on healthy eating, many challenges make it difficult to eat as well as we should. Over the past several

decades there has been a significant increase in the percentage of meals that are eaten away from home. But the convenience of eating out comes at a price. When we eat out, we lose much of our control over the types of foods and methods of preparation. Very importantly, we also lose control of portion sizes. We often feel obligated to eat everything served to us so we don't waste food and we get our money's worth. Portion size is equally important at home. Another challenge is that meals eaten at home often involve convenience food, which may sacrifice nutritional value for ease and speed of preparation.

Pressures from society (peers, others, the media, the environment, etc.) often lead people toward dieting. Many popular diets are unhealthy, and



few are successful in helping people accomplish effective long-term weight management. Societal pressures may also push people into unhealthy weight control behaviors such as skipping meals, eating an unbalanced diet, eating meals very rapidly, binge eating, and fasting.

In some cases, unhealthy weight control behaviors may progress to more extreme clinical eating disorders. Anorexia nervosa is one such disorder that is associated with extreme caloric restriction and extremely low body weight. Anorexia is often accompanied by an obsession for extreme amounts of exercise. Bulimia nervosa involves purging (or vomiting), in some cases after binge eating. Individuals with bulimia may exhibit a steady or fluctuating body weight. It is possible that one individual may be both anorexic and bulimic at the same time. Clinical treatment is usually required to help people overcome these disorders. If left untreated, these conditions may result in serious health consequences, even death.

#### Keep meals and snacks on a regular schedule



"Regular eating practices" refers to the healthy pattern of eating regularly scheduled meals and snacks. One key is that snacks should be planned to help satisfy your appetite, rather than simply picked up and eaten whenever. Healthy snacks (such as fruits and vegetables) are better than higher calorie and less nutritious baked goods and sweets. Healthy eating should also involve eating in response to hunger and avoiding a feeling of deprivation. One technique that is useful in helping a person decide when his/her hunger has been satisfied is to eat slowly. Placing silverware back on the table between each bite will slow down your eating. Using such techniques may help a person reach the point were he/she no longer feels hungry, before they reach the point of feeling full.

In contrast to regular healthy eating practices, binge eating involves eating excessive quantities of food at one time. A binge eater often feels guilty or ashamed afterwards. Binge eating is not uncommon and often occurs in response to a feeling of deprivation from skipping meals or dieting. Some binge eaters may resort to purging after a binge.

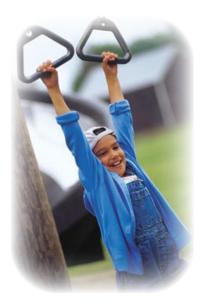
### Physical activity prescription: 30 minutes, five days a week

Regular, moderate-intensity physical activity is recommended for everyone on most days of the week (American College of Sports Medicine, 2006). One recommended type of exercise is referred to as aerobic and consists of using the large muscle groups of the body repeatedly over an extended period of time requiring the heart rate to rise and stay elevated for several minutes. An example of the recommended moderate-intensity exercise is brisk walking for at least 30 minutes on five days each week.

An alternative is to participate in vigorous-intensity exercise, such as running or brisk cycling, for at least 20 minutes, at least three days per week (on alternate days).

It should be emphasized that the recommended amounts of physical activity may be partially or entirely met through work or play activities such as mowing the lawn, gardening, walking the dog, walking to the store, or riding bicycles in the neighborhood. For children, activities such as playing tag, riding bicycles, dancing, and swimming are all healthy forms of exercise.

The moderate-intensity exercise recommendation of 30 minutes most days per week may be met by accumulating several shorter bouts of exercise during the day (for example: Three 10-minute walks per day equals the recommended 30 minutes of daily activity). Each bout of exercise should last at least 10 minutes.



On the unhealthy end of the physical activity spectrum is either no exercise, which is called "sedentary," or too much exercise. Sedentary living is defined as exerting only the minimal amount of physical activity required for activities of daily living. Excessive exercise is defined as exercising more than 60 minutes per day, other than as part of an organized sport practice or exercise done as part of a person's occupation or work around the house. Those who perform excessive amounts of exercise place themselves at an elevated risk for injuries to their joints. Excessive exercisers might be described as being preoccupied with exercise.

#### Body mass index number rates health based on weight

For adults, a healthy weight status is determined by a measure known as body mass index or BMI. BMI is a number that is calculated by dividing a person's weight in kilograms by their height in meters squared. (The federal Centers for Disease Control and Prevention has BMI calculators at www.cdc.gov/nccdphp/dnpa/bmi and a BMI table for



adults at <u>www.nhlbi.nih.gov/guidelines/obesity/bmi\_tbl.htm</u>.) Most adults fall into a BMI range between 15 and 35. A BMI of less than 18.5 is considered underweight and unhealthy, and the lower the BMI value, the greater the severity of underweight. Normal BMI ranges between 18.5 and 24.9. The normal range is considered to be the healthiest. Overweight is defined by a BMI of 25 to 29.9. A BMI of 30 or above is considered to be in the obese range, and the higher the BMI value, the greater the severity of overweight. Both the overweight and obese categories are considered less healthy than the normal BMI range.

For children and adolescents, overweight is defined as in the 95th percentile or higher of BMI based on age and gender, and underweight is in the 5th percentile or lower (Dietz, 2006). It is best to have a doctor determine your child's BMI and

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discuss it with you. However, you can calculate your child's BMI with the Centers for Disease Control and Prevention calculator for children at <a href="http://www.cdc.gov/nccdphp/dnpa/bmi">www.cdc.gov/nccdphp/dnpa/bmi</a>.



## Body image may have no basis in reality

Body image satisfaction may be independent of objective measures of weight, BMI, level of physical fitness, or reality. Acceptance of one's body type (body build and stature) is essential in body image satisfaction. The opinions of others and the influence of the mass media on our perception of our own body must be placed in perspective. It is important that we recognize that our body type, although influenced by diet and physical activity, is largely genetically determined. The most important goal is to strive for health. Those who are physically active have been shown

to be healthier, requiring less medical care, than sedentary individuals in the same BMI category (Wang, McDonald, Champagne & Edington, 2004). This suggests that physical activity should be emphasized for improved health regardless of one's body image or BMI.

As was true with body satisfaction, body dissatisfaction may be independent of objective measures such weight, BMI, level of physical fitness, or reality. Body dissatisfaction is often characterized by embarrassment about one's appearance and fear of becoming fat. Learning to accept one's body while striving to be healthy is the key.

### **Selected references**

American College of Sports Medicine (2006). ACSM's *Guidelines for Exercise Testing and Prescription*, 7th ed. Philadelphia: Lippincott, Williams and Wilkins.

Dietz, W.H. (2006). What constitutes successful weight management in adolescents? *Annals of Internal Medicine*. 145:145-146.

Kater, K.J. (2005). About BodyImageHealth.org. www.bodyimagehealth.org/about.html

Neumark-Sztainer, D. (2005). "I'm, Like, So Fat!" Helping Your Teen Make Healthy Choices about Eating and Exercise in a Weight-Obsessed World. New York: The Guilford Press.

Wang, F., McDonald, T., Champagne, L.J., & Edington, D.W. (2004). Relationship of body mass index and physical activity to health care costs among employees. *Journal of Occupational and Environmental Medicine*. 46:428-436.

# Part II: Role Modeling a Healthy Body Image

## **Objectives**

By the conclusion of Part II you should be able to:

- Explain the importance of adult role models for healthy nutrition and regular physical activity.
- List some sources for expert information on healthy eating.
- Explain how family meals provide an excellent opportunity for modeling.
- Explain how the types of food available at home and food preparation methods may affect healthy eating.
- Explain why dieting is not a good approach to weight management.
- Explain some benefits of role modeling of physical activity.
- List several physical activities that may improve the health of both adults and children.
- Explain how sedentary living by adults may negatively influence children.

## Use your influence as a role model

One of the best mechanisms that a parent or grandparent can use in teaching their children is to model the desirable behaviors. Clearly, modeling desirable behaviors is a positive approach; however the power of this modeling has been clearly shown in a negative way in relation to smoking. Nearly three-fourths of smokers grew up in a household in which at least one of their parents was a smoker. Role models play a key role in shaping behavior (either positively or negatively) in children.

Behavioral influences in the home (from parents and other family members) are predominant in younger children, while peers and other outside persons steadily gain more influence as children progress through adolescence.



Parents and other family members have a clear opportunity to help children establish a healthy body image and self-acceptance, especially during their younger years. A

healthy body image comes as a result of participation in healthy behaviors (healthy nutrition and regular physical activity) and acceptance of the idea that health — not appearance — is our No. 1 priority.

Although our society places great emphasis on dieting as a weight management tool, dieting is completely unnecessary if people eat a healthy diet and exercise regularly. Parents should aim to help children establish healthy eating patterns and regular physical activity. Adults can influence eating habits in children by preparing, serving, and eating healthy meals with their children. When eating away from home, adults should help children recognize healthy menu choices.



Parents can model physical activity by participating in regular physical activity with their children. People invest their time in those activities that they see as priorities. Children observe their parents and often adopt a similar set of priorities. Children (like everyone else) are likely to continue to participate in activities that are fun. Healthy eating should be enjoyed, and physical activity should be fun.

### Dietary Guidelines, MyPyramid full of nutrition info

Modeling healthy eating involves becoming informed about healthy nutrition. Expert information is available from the USDA's Dietary Guidelines for Americans 2005 and MyPyramid. Web sites for this information are:

- Guidelines: <u>www.health.gov/DietaryGuidelines</u>
- MyPyramid: <u>www.mypyramid.gov</u>

Regular family meals provide an excellent opportunity for modeling healthy eating, such as eating correct portion sizes, eating more slowly, and eating a variety of foods, as well as an opportunity for social interaction.

Having a variety of nutritious foods in your home (such as fruits, vegetables, low-fat dairy products, lean meats, fish and poultry, whole grains, nuts) for



meals and/or snacks will benefit the health of all family members. Readily available low-calorie snacks such as fruits and raw vegetables can help satisfy cravings in a healthy way. Dramatically limiting the purchase and consumption of high-fat and high-sugar foods will help direct family members toward healthier alternatives. In place of high-calorie soft drinks and sports drinks, provide low-fat milk, fruit juices, or water.

Food preparation methods are vitally important in promoting health. Healthier preparation methods such as baking, grilling, or broiling should be substituted for frying. Including children in the preparation of healthy foods will help them develop a taste and appreciation for healthy foods and preparation methods.

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#### Healthy eating requires healthy portion sizes

A major challenge facing all Americans today is the oversized portions of food served both at home and at restaurants. Adults in families need to become familiar with recommended portion sizes. Serving recommended portion sizes during family meals will help all members of the family learn them. This knowledge can then be applied when eating away from home. When eating in restaurants, adults should help educate children not only about portion sizes, but also about healthy menu choices. Sharing an entrée or bringing a portion of a meal home are good ways to practice portion control and help to educate children.



A key to healthy eating is to avoid dieting and to recognize that moderation, not prohibition or deprivation, is central to successful weight management.

## Being active with kids points them in right direction

As with dietary habits, children are greatly influenced by their parents' physical activity, or lack of it. Parents (and grandparents) should incorporate regular physical activity into their daily routines to serve as models for children. Regular physical activity and healthy nutrition are the keys to maintaining a healthy body weight, a vital contributor to long-term health.

A great way to encourage children to participate in physical activity is for parents to participate with them. The activities need not be highly structured, such as team sports. Activities such as walking, hiking, cycling, swimming, going to the playground, and playing Frisbee, touch football, basketball, or tennis are all examples of



good activities that may have health benefits. The key element is that the activities should be fun for both the adults and kids.

Just as adults modeling physical activity can have a positive impact on children, adults modeling inactivity (or a sedentary lifestyle) may have a negative effect. Parents should limit the time they spend watching television or videos, playing video games, and using the computer for recreation. Modeling moderation in these activities will help children keep them in perspective. A key factor that has been connected with the number of overweight children is increased TV/video viewing. A recent survey reported that, on average, teenage girls state that they spend 18 hours per week in these activities, and teenage boys said they spent 20 hours a week (Neumark-Sztainer, 2005). Television/video viewing, playing video games, and recreational computer use are all forms of entertainment. Physical activities are active forms of entertainment that may simultaneously enhance health.

Clearly, adults should encourage children to be regularly physically active. Participation in team sports is a part of this, but emphasis should be placed on learning and developing skills related to physical activities that may be continued on a lifelong basis.

## **Selected reference**

Neumark-Sztainer, D. (2005). "*I'm, Like, So Fat!*" *Helping Your Teen Make Healthy Choices about Eating and Exercise in a Weight-Obsessed World.* New York: The Guilford Press.

## Part III: Providing a Healthy Environment

#### **Objectives**

By the conclusion of Part III you will be able to:

- Explain how adults largely control the environments of their children.
- Explain the role of encouragement in shaping body image.
- Explain the role of the mass media in shaping body image.
- Explain how healthy behaviors can be used to shift attention away from excessive focus on body image.
- Explain to children that body changes occur naturally with growth.
- Describe how developing one's strengths while remaining healthy is more important than appearance.
- List some actions adults can take to better model physical activity for their children.
- Describe the importance of physical activities being enjoyable.



• List several strategies for making physical activity more fun.

#### Adults mostly control household environment

It has been suggested that environment is second only to personal lifestyle as a predictor of a person's state of health (Terborg, 1986). Some authors have attributed the dramatic increase in the number of overweight and obese Americans within the last 25 years largely to environmental factors (Chou, Grossman & Saffer, 2004).

Adults in households exert tremendous influence over the environment in which children are raised. Factors largely under adult control include the type and location of housing, the types and amounts of food that are available, the furnishings and electronic items (appliances, TVs, computers, telephones, stereos, etc.), the modes of transportation, and the services that the family purchases. Although household economics plays a large role in determining the nature of many of these items, they are generally considered essentials in every American household. Adult control over the essentials offers a clear opportunity for parents/grandparents to influence and help shape behaviors in children that will either enhance their body image or lead them toward issues with body image.

#### Encouragement leads to healthy body image

The first and perhaps least expensive action that an adult can take to help enhance a child's body image is encouragement. Often children (and adults) with body image issues have been negatively influenced at some point by teasing or derogatory comments from others or media images that suggest to them that their body is "not good enough." Encouragement, especially if it is aimed at shifting the focus toward health rather than strictly appearance, can often help people offset these types of influences. Frequent encouragement, starting from a young age, is often the best.

Media models may cause or reinforce negative images that children have about their own bodies. Adults should point out to children the nature of advertising and the almost obsessive focus on the "thin ideal" body type. An interesting exercise that may help illustrate this is to have a child look at a popular teen magazine and try to find advertisements with other than ultra-thin females or lean and muscular males.



Next the children should be asked to think about real people they know. Is everyone, or even most of the people they know, as thin and lean as the advertising models?

Clearly, much attention in our society is focused on appearance. Children need to be taught that health is more important than appearance. Consistent encouragement beginning when children are young to understand and practice healthy behaviors is one way to help shift attention away from appearance. The focus should be on healthy behaviors such as a healthy diet and a healthy amount of regular exercise.

#### Bodies will change, but body types won't

Adults should help children understand that everyone goes through many changes as they grow. It is natural that at some points of life people like their bodies, and, at other times, they don't. Adults need to teach children to be patient, explaining that if they don't like their body at any specific time, it will change as they grow. Further, children need to know that we all have natural body types that are uniquely our own. Some people are short and stocky, some are tall and thin, some are extremely thin, and others are heavier. A person's body type traits are largely hereditary. Completely changing our body type is beyond our control. We should focus on being healthy and fit. It is important to keep in mind that an overweight person who is fit is healthier than a normal weight person who is out of shape.



We should teach children that everyone has strengths and weaknesses. For example, some people are talented athletes, others are not; some people are gifted musicians, others are not; and some people are excellent writers, others are not. All children should be encouraged to find their strengths and develop them.

Regardless of our strengths and weaknesses,

health is important to everyone. When we practice healthy behaviors, we are participating in the production of health (Grossman, 2003). A focus on striving for good health shifts the focus away from appearance while enhancing an individual's body image.

### Good nutrition and exercise create healthy environment

Adults usually control the foods that are present in a household. As mentioned in Part II of this publication, the USDA Dietary Guidelines and MyPyramid can help in the selection of healthy foods. Purchasing and having healthy foods on hand for meals and snacks is very important. Limiting the purchase (and the availability) of high-fat and high-sugar foods and beverages is very helpful. Consuming those items only rarely or occasionally is recommended. Both children and adults can learn to eat and enjoy healthy snacks. Healthy eating eliminates the need for dieting. The social benefits of family meals provide added value in addition to a great opportunity to model healthy eating.

Maximizing opportunities to participate in regular physical activity is another healthy objective. Adults can model and help children learn to limit TV (and computer time). A good initial goal for many people is to limit time spent on those activities to no more than two hours per day. Adults can also help children locate safe places for outdoor play, such as places with sidewalks and bicycle lanes. If necessary for safety reasons, you can drive children to parks, playgrounds, or school facilities for play. Providing children with exercise-related equipment and clothing will help increase the likelihood of physical activity. Children should be encouraged to participate in physical activity with others. It is very important to help children identify and develop skills in lifetime physical activities that they enjoy and that will help them maintain their health.

## Physical activity isn't just 'exercise'

Both children and adults need to understand the type and amount of physical activity that is associated with developing good health. But first, we all need to recognize that physical activity doesn't need to be what most people think of as "exercise." It can be a game of tag, shooting baskets, playing tennis, ice or roller skating, skateboarding, dancing, riding bicycles, or recreational swimming.

Generally, moderate-intensity exercise such as walking or cycling at a pace that allows a person to carry on a normal conversation is recommended. At least 30 minutes of such moderate-intensity physical activity should be accumulated most of the days each week. Alternatively, you can opt for vigorous-intensity exercise three or more days a week. When you are engaging in vigorous-intensity exercise, such as jogging or swimming laps or playing tennis or soccer, you're generally so out of breath that you can say only a few words at a time.

Perhaps the most important aspect of a daily exercise routine is that it needs to be fun. Fun activities help establish an environment where children perceive that physical activity is valued.



Activities that are challenging often contain built-in motivation. Many activities provide both fun and a sense of accomplishment. Generally, healthy physical activity should be something a person looks forward to and that helps them feel better throughout the rest of the day. Exercising with others helps provide a social aspect that

may help people stay motivated. Many people find they enjoy a variety of different activities on different days. Cycling one day, swimming the next, and walking another may help keep a person's program fun and interesting. The important thing is to figure out several activities that you enjoy and participate in them regularly.

#### **Selected references**

Chou, S., Grossman, M. & Saffer, H. (2004). An economic analysis of adult obesity: results from the Behavioral Risk Factor Surveillance System. *Journal of Health Economics*. 23:565-587.

Grossman, M. (2003). Household production of health. *Review of Economics of the Household*. 1:331-342.

Terborg, J. R. (1986). "Health promotion at the worksite." In K. H. Rowland & G. R. Ferris (Eds.), *Research in Personnel and Human Resource Management*, Vol. 4. Greenwich, CT: JAI Press.

## Part IV: Recognizing Signs of a Possible Eating Disorder

Experts on body image and eating disorders are the first to point out that diagnosis of an eating disorder is a complex and difficult process even for experienced professionals. They suggest that is not appropriate for family members to attempt to diagnose eating disorders, but that it is important for you to recognize changes in your child that suggest possible eating-related problems. Some of these changes are:

- 1. An unusual preoccupation with food.
- 2. Doesn't appear to have time in his/her schedule to eat.
- 3. Skips meals.
- 4. Obsessive attention to appearance.
- 5. Eats notably small amounts.
- 6. A tendency to participate in excessive amounts of exercise (more than 60 minutes per day of aerobic exercise) separate from athletic practices.
- 7. Sometimes displays binge eating, especially in response to stress.
- 8. Vomiting after eating.
- 9. Chronic use of laxatives.
- 10. Dependence on "diet-oriented" food substitutes.
- 11. Mood changes.
- 12. Anti-social behavior.
- 13. Weight loss.
- 14. Complaints of being too fat or too heavy when this is obviously not the case.
- 15. Erratic fluctuations in weight.
- 16. Slowed metabolism: unusually low heart rate, often cold (wears more clothes than appropriate for the temperature).

This list is only partial, but it does contain a number of behaviors that may be displayed by persons who have eating-related issues. If you are concerned about a family member or friend in relation to their eating behaviors, contacting a medical professional is a wise course of action.

Two excellent references for more information on this topic are:

- National Eating Disorders Association, <u>www.NationalEatingDisorders.org</u>, (800) 931-2237 (Has a checklist for how to approach a person with possible eating behavior problems at <u>www.nationaleatingdisorders.org/</u> <u>p.asp?WebPage ID=286&Profile ID=41174.</u>)
- Neumark-Sztainer, D. (2005). "I'm, Like, So Fat!" Helping Your Teen Make Healthy Choices about Eating and Exercise in a Weight-Obsessed World. New York: The Guilford Press.

about foods and nutrition, go to https://secure.agriculture.purdue.edu/store/subcategory.asp?subCatID=177

For more information from Purdue Extension

For more information from the National Institutes of Health on physical activity and healthy body image, go to <u>http://win.niddk.nih.gov/publications/active.htm</u>

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