# Unit 2 Balancing Food and Fitness

## Practical Problem:

How do I balance my body's needs for food and fitness to ensure good health throughout my life?

## Missouri Family and Consumer Sciences Competencies:

- (C-4) Describe nutrition related health risks.
- (C-5) Assess the effects of eating disorders, and food and diet fads on wellness.
- (C-6) Assess the role of physical activity on wellness.

## Enabling Objectives for Competency Mastery:

- 1. Analyze current lifestyle habits that may increase health risks.
- 2. Examine the impact of anorexia nervosa, bulimia, binge-eating and overeating on wellness.
- 3. Compare current fad diets with the recommendations of the Dietary Guidelines for Americans.
- 4. Evaluate current health status.
- 5. Determine short- and long-term wellness goals.

## **Teacher Background Information**

## Rationale

Choices students make today will influence their overall health in the future. Fad diets, poor nutrition, lack of physical activity, or eating disorders students suffer from today will have a dramatic impact in the years to come. Nutrition research, fitness studies, and medical research all indicate that a balance between food and fitness is essential for a lifetime of good health. Many of the leading causes of death in the United States are directly linked to a sedentary lifestyle.

## Nutrition-related Health Risks

There are two common types of diseases that affect human health. They are infectious disease and degenerative disease. Infectious disease includes small pox, influenza, or polio. Many infectious diseases are so debilitating that if they are not fatal, they severely reduce the quality of life and longevity of those afflicted. Modern vaccines and antibiotics have greatly reduced the threat of these types of disease in developed countries. Diet cannot prevent or cure infectious disease, but a healthful diet can improve the body's ability to fight or defend itself against these diseases.

Degenerative diseases find their victims through a combination of three factors: genetics, individual medical history, and lifestyle. A few common examples of degenerative diseases include heart disease, diabetes, cancer, or Alzheimer's.

While the exact cause of an infectious disease is known, the exact cause of many degenerative diseases is not known for certain. Scientist have identified many 'risk factors' that can increase the likelihood a person will develop a certain degenerative disease. For example, cigarette smoking is known to increase a person's chances of developing lung cancer. However, a person who does not smoke may also develop lung cancer.

The National Center for Health Statistics reported in 2001, several of the leading causes of death in the United States. By far the greatest cause of death was heart disease, the second leading cause was cancer, and the third leading cause was stroke. All three are related to diet and physical activity. To further illustrate these statistics, approximately 270 people per 100,000 died in 1999 from heart disease, while fewer than 40 people per 100,000 died in motor vehicle and other accidents.

In addition to the degenerative diseases of heart disease, cancer, and Alzheimer's already mentioned, other common diseases include diabetes, kidney disease, liver disease and cirrhosis, osteoporosis, anemia, and gastrointestinal conditions (i.e., gastric reflux, diverticulosis, irritable bowel syndrome, and ulcer).

The U.S. National Library of Medicine and the National Institutes of Health provide a great deal of information about diet and disease at <a href="https://www.nlm.nih.gov/medlineplus/ency/article/002096.htm#information/">www.nlm.nih.gov/medlineplus/ency/article/002096.htm#information/</a>

### Eating Disorders<sup>1</sup>

Eating disorders are unhealthy behaviors that can lead to serious illness and even death. Someone who is suffering from an eating disorder may be ashamed of their actions and well aware that what they are doing is unhealthy, yet may not know how to change their behavior or seek help.

Common types of eating disorders include Anorexia Nervosa, Bulimia Nervosa, and Binge Eating. The causes or underlying issues are different for every eating disordered person. It is often a traumatic event that has happened in their life, possibly years before the eating disorder manifested. These are only some of the possible causes and will vary from person to person.

- Sexual abuse or rape
- Physical violence
- Emotional abuse (e.g., bullying)
- Divorce of parents
- Death of a loved one
- Serious illness in the family
- Peer pressure (e.g., to be thin)
- Surgery/ill health as a child
- Traumatic life-threatening event (e.g., car crash)

## Anorexia Nervosa

Anorexia nervosa is an eating disorder in which the sufferer has a fear of weight gain and becoming "fat." However, like all eating disorders, anorexia is merely a symptom that can be observed for a much deeper psychological problem. Eating disorders, particularly anorexia and bulimia, usually affect females but the number of male anorectics is on the increase.

Those suffering from anorexia will often go to extreme lengths to avoid consuming food. One of the most frequent behaviors is lying. For example, saying they have already eaten dinner when really they haven't. Anorectics will also make excuses so they can eat less or even avoid meals altogether. This isn't necessarily the same as lying because they may decide to become vegetarian or vegan, have to fast for religious reasons, or they may simply claim they are on a "diet".

There is no predetermined cause of anorexia and the reasons for its onset will vary from person to person. Often, there are a number of contributory factors, many of which may be from the sufferer's past. One thing which all anorectics have in common is low self-esteem, even if it only manifests itself occasionally. Low self-esteem can quickly lead to a negative image of oneself, especially a distorted body image. Right from the start, anorexia is a way of coping and a way of dealing with problems when a person's life feels out of control.

Control is an important issue for someone who suffers from anorexia. The sufferer may feel as though their life is, or has been, out of control. The extent of the "control factor" varies from person to person.

Sufferers of all types of eating disorders tend to feel like their life is uncontrolled and chaotic, but the method of attempting to regain control varies according to the illness the person is suffering from. Anorectics try to regain control by denying themselves food, whereas bulimics purge their body of food in order to reestablish some control, even if only for a temporary period of time.

### Bulimia Nervosa

Bulimia is a condition where the sufferer purges (gets rid of) food they have eaten by self-induced vomiting, over exercising, abusing laxatives or diuretics, or other means. Binges are common with bulimia, although the frequency varies from person to person. Many bulimics do not binge but simply purge ordinary meals or snacks. Like anorexia, bulimia has nothing to do with weight, calories or being "thin" - these are merely symptoms of underlying turmoil and distress.

It is much harder to identify someone who is suffering from bulimia than anorexia because the physical signs are less obvious and can take longer to appear. Also, most bulimics are not underweight and many may be overweight due to binging. Bulimia is a constant battle for control. If the control is lost (i.e. by eating or overeating) then it must be regained through vomiting, over exercising, laxative abuse or other methods of purging.

### Binge-eating

There is no predetermined cause of binge-eating disorder and the reasons for its onset will vary from person to person. Binge-eating disorder (overeating) is characterized by periods of uncontrollable eating followed by feelings of shame and guilt. These binges are not usually accompanied by purging, although occasional purging may occur. People who suffer from binge-eating disorder are usually overweight and obesity can be a very real problem. Binge-eaters tend to consume food in order to cope with stress.

In a similar way to bulimics, binge-eating disorder sufferers eat excessively in order to cope with life (except they do not usually purge) and then feel very much out of control afterwards. Binge-eating is a psychological disorder and binges/weight gainare merely symptoms of underlying issues. Like bulimics, people with binge-eating disorder do recognize that there is something wrong, they often fear someone will discover their eating behavior. They usually know their behavior is unhealthy, but they don't know how to seek help.

## Fad Diets

Many people become frustrated by attempts to lose weight through increasing physical activity and lowering overall caloric intake. They may seek more rapid results by resorting to a variety of fad diets that promise amazing, guaranteed, effortless results.

Fad diets tend to be popular for a short time and then are replaced by the next fad. Many fad diets bring successful weight loss results, however, these results can come with a long-term health consequence. The fad does not help a person establish long-term healthful eating patterns. Most people regain the weight once they stop following the diet plan. The 'seesaw' effect can be even more dangerous to long-term health.

Fad diets may be unhealthy because they often limit certain food groups or strictly limit total calories. Diets that provide less than 800 calories per day could lead to heart problems, which can be fatal. Losing weight at a very rapid rate (more than 3 pounds a week after the first couple weeks) may increase the risk for developing gallstones (clusters of solid material in the gallbladder that can be painful).

Research suggests that losing 1/2 to 2 pounds per week by making healthy food choices, eating moderate portions, and including physical activity every day is the best way to lose weight and keep it off. Healthy eating and physical activity habits may lower the risk for developing type 2 diabetes, heart disease, and high blood pressure.

## Web Resources for Teachers

### www.consumer.gov/weightloss/bmi.htm

The Partnership for Healthy Weight Management provides a BMI calculator and information about healthy weight management strategies.

### http://www.shapeup.org/

A non-profit organization dedicated to achieving healthy weight for life. Website includes an interactive body fat calculator.

## **Assess Nutrition and Wellness**

### http://outreach.missouri.edu/hes/infosheets/diseaseinfo.htm

The University of Missouri Extension Information Sheets on Cancer, Diabetes, Heart Disease, Hypertention, Osteoporosis, Phytochemicals and Powerpoint slideshows.

#### http://www.niddk.nih.gov/

National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health.

#### www.nhlbisupport.com/bmi/bmicalc.htm

The National Heart, Lung and Blood Institute includes a Body Mass Index calculator and a menu planner online. The home page includes many informative articles and a weight management tutorial.

#### www.palereflections.com

Pale Reflections is an online source for facts, statistics, and articles related to eating disorders. Topics include anorexia, bulimia, binge eating, depression, obsessive compulsive disorder and similar topics.

#### http://www.4woman.gov/faq/preg-nutr.htm

4woman.gov is a national women's health information center and is supported by the U.S. Department of Health and Human Services, Office on Women's Health.

### http://www.netwellness.org/

NetWellness is created and evaluated by the faculty at the University of Cincinnati, The Ohio State University, and Case Western Reserve University. This is a nonprofit consumer health web site.

#### <sup>1</sup>http://www.nlm.nih.gov/medlineplus/eatingdisorders.html

This website includes a number of links to additional information for those who believe they have an eating disorder and want to find help, for those who know someone suffering from an eating order, and for those who just want to learn more about this illness.

#### http://www.brightfutures.org/nutrition/pdf/index.html

*Bright Futures in Practice: Nutrition* pdf file from Georgetown University. The mission of Bright Futures is to promote and improve the health and well-being of infants, children, adolescents, families, and communities.

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## **Instructional Strategies**

- 1. Analyze current lifestyle habits that may increase health risks. (Competencies C-4, C-6)
  - a. Use Activity Sheet #1: **Information Search** to explore facts about various health risks. Divide the class into groups to work together on this activity. Hand out the Activity Sheet to each group. Allow time to use the textbook, library or Internet sources to search for the information. Review answers as a class and discuss questions that remain. Fill in with information about the diseases that are not selected by any group.
  - b. Hand out copies of the policy statement from the American Academy of Pediatrics and Parents Advocating School Accountability regarding school soft drink sales. This can be found at the following link: <u>http://www.aapolicy.aappublications.org/cgi/content/fall/pediatrics;113/1/152</u>
     Work in groups of 3-4 students using Activity Sheet #2: SEARCH for Solutions to consider what should be done in your school.

**Teacher Note:** A great lesson plan is available through the Public Broadcast System (PBS) featuring NOW with Bill Moyers. You will find a full lesson plan with handouts, transparencies, activities to show how much sugar is in soda, and links to background information on this issue. <u>http://www.pbs.org/now/classroom/diet.html</u>

c. Create an FCCLA Student Body project to learn more about healthy eating habits. Student Body is a national FCCLA peer education program that involves youth teaching youth about healthy eating, fitness, and lifestyle choices. The Student Body program focuses on three aspects of wellness: Eat Right; Be Fit; and Make Healthy Choices. Begin with the Eat Right component. Fill out Activity Sheet #3: Student Body "Eat Right" to determine each student's interest. Students who marked the same areas of interest form groups to design a project to educate other students about healthy eating habits.

## **Assess Nutrition and Wellness**

d. Use the Internet to access the Fast Food Facts website at

http://www.foodfacts.info/ to determine how eating out at fast food restaurants contributes to their overall diet. Divide the class into two groups. Group One will assume they eat out every meal for five days and they can eat anything from any fast food restaurant. Group One should record their 5-day meal plan and use the website to determine how many total calories were consumed each day. Group Two will be limited to no more than 2,200 calories per day. Group Two can only eat at fast food restaurants and they cannot exceed their calorie limit. Group Two will write out their meal plan for five days. Post both meal plans for all students to examine.

## **Questions for Discussion/Formative Assessment**

- How far over the 2,200 calorie limit was group one for each day?
- How much food was group two able to select and still stay within their calorie limit?
- Are either one of these approaches realistic for a long-term lifestyle?
- Besides total calories, what other nutritional concerns do you see with both meal plans?
- What long-range health concerns would you predict for someone who ate only fast food?
- Why do you think fast food is so popular in our society?
- What are some ideas for overcoming the fast food craze?

# 2. Examine the impact of anorexia nervosa, bulimia, binge-eating and overeating on wellness. (Competency C-5)

a. Estimate how many children and adults are concerned with weight and dieting by using Activity Sheet #4: Dieting Statistics in America. Use Fact Sheet #1:
 Statistics About Eating Disorders and their Precursors to compare the data with your estimates.

## **Questions for Discussion/Formative Assessment**

- Do you think elementary school children should be concerned with dieting?
- What role do you think the media plays in influencing people's opinions about weight?
- Do you believe there is a 'perfect' size or shape this is best for everyone to try to fit?
- Besides dieting, what can a person do to change their size or weight?
- How do you feel about these statistics?
- What can be done to educate your community about your concerns?
- b. Divide the class into four Jigsaw learning groups described earlier in this unit. Group One will research and define various eating disorders such as anorexia nervosa, bulimia, binge eating, etc. Group Two will research and recommend ways for a friend to help someone who suffers from an eating disorder. Group Three will research and recommend ways for parents to help a child with an

eating disorder. Group Four will research and recommend ways for an individual who has an eating disorder to recognize the problem and seek help. After each group has prepared, divide into new groups to teach each other about eating disorders. Use textbooks, library materials or online sources for background research.

**Teacher Note:** One online source is the National Eating Disorders Association (NEDA). NEDA is dedicated to expanding public understanding of eating disorders and promoting access to quality treatment for those affected along with support for their families through education, advocacy and research. http://www.nationaleatingdisorders.org/

Other online resources that may help you with background or teaching materials for teen eating disorders is at <a href="http://www.lv.psu.edu/jkl1/teens/eating.html">http://www.lv.psu.edu/jkl1/teens/eating.html</a> <a href="http://www.girlpower.gov/AdultsWhoCare/resources/Pubs/teachers.pdf">http://www.girlpower.gov/AdultsWhoCare/resources/Pubs/teachers.pdf</a>

c. Use Activity Sheet #5: **Understanding Eating Disorders Webquest** to explore the illnesses and appropriate actions to help someone with a suspected eating disorder. Divide the class into four groups to complete the Webquest investigation. Assign each group one scenario to explore.

# 3. Compare current fad diets with the recommendations of the Dietary Guidelines for Americans. (Competency C-5)

a. Brainstorm a list of popular diet fads in the media now. Create a chart to compare and contrast each diet. Here is an online link that lists several fad diets currently in the media <a href="http://www.ezfastweightloss.com/">http://www.ezfastweightloss.com/</a>

## **Questions for Discussion/Formative Assessment**

- What do these diets have in common?
- What is unique about each diet?
- Is there a "celebrity" who endorses the diet or the is the diet based on "scientific research?"
- b. Review Fact Sheet #2: **Characteristics of Fad Diets** either with individual copies or by using an overhead transparency. Use the Internet or other media to find promotional materials for fad diets currently in the news. Select one fad diet to develop a poster with the fad diet "facts" and the real facts showing the accurate health information relevant to that fad diet.

## 4. Evaluate current health status. (Competency C-6)

a. Review Fact Sheet #3: **Body Mass Index and Health**. Calculate your BMI. Make a list of goals to maintain or improve your BMI. An online BMI calculator is available at: <u>http://www.nhlbisupport.com/bmi/bmicalc.htm</u>

- b. Use Activity Sheet #6: Calculate Your Basal Metabolic Rate or the online calculator at <u>http://health.discovery.com/tools/calculators/basal/basal.html</u> to determine the minimum number of calories you need each day.
- c. Contact the Missouri Action for Healthy Kids state team (website contact information is provided below) to request brochures and information about the efforts in Missouri to improve the health of children and adolescents. Use the FCCLA Planning Process to determine how students in your school can get involved with educating your school and community.

**Teacher Note:** Action for Healthy Kids (AFHK) is a nationwide initiative dedicated to improving the health and educational performance of children through better nutrition and physical activity in schools. There are more than 40 partner organizations in AFHK including the American Association of Family and Consumer Sciences. Information about the program is available at http://www.actionforhealthykids.org/

The Missouri State Team operates in collaboration with the Missouri Coordinated School Health Coalition. The Team developed a brochure for parents and families called "Missouri Families, Eating Better and Moving More". Brochures have been printed and will be distributed through the Practical Parenting Partnerships' Newsletter, the PTA's newsletter and to school boards, the Girl Scouts, and the Boy Scouts. More information on Missouri state data and AFHK activities is available at http://www.actionforhealthykids.org/devel/state\_profile.php?state=MO

## 5. Determine short- and long-term wellness goals. (Competencies C-5, C-6)

- a. Use Activity Sheet #7: Setting My Goals for a Healthy Weight to make a plan for a healthy future.
- b. Use Activity Sheet #8: **Keeping Track of My Progress** to monitor your progress toward healthier habits.
- c. Access the Missouri Action for Healthy Kids state profile at <a href="http://www.actionforhealthykids.org/devel/state\_profile.php?state=MO">http://www.actionforhealthykids.org/devel/state\_profile.php?state=MO</a> View the online report or print out a copy to use in class. The report provides current data on health behaviors and risks for Missouri students. Discuss the questions below to determine what can be done in your school and community.

## **Questions for Discussion/Formative Assessment**

- How does the health status of students in Missouri compare to the national average?
- From this data, which health risks do you think are the most important to address?
- Who do you think should be concerned about this data? Parents? School leaders? Community leaders? Local government leaders? Health care providers? Others....
- What actions should these leaders take to get involved?
- What do you predict for the future of these students if no one takes any action?
- d. Access the Fit-4-Life website provided by the Centers for Disease Control at <a href="http://www.bam.gov/sub\_physicalactivity/index.html">http://www.bam.gov/sub\_physicalactivity/index.html</a>. This online resource includes a quiz to learn more about types of physical activities. It also includes a calendar creator to design a personal fitness and activity schedule.
- e. Access the International Food Information Council's website for information on reducing fat in the diet at <a href="http://ific.org/publications/brochures/benbalbroch.cfm">http://ific.org/publications/brochures/benbalbroch.cfm</a> Discuss the definitions of low-fat, reduced fat, light, etc. Bring in various Nutrition Fact labels from products you regularly consume. Compare the amount of fat listed on "regular" products and on the similar product that claims to have less fat.
- f. Identify a favorite food or recipe that is traditionally higher in fat such as banana bread or clam chowder. Discuss what ingredients in that food contribute to its high fat content. Suggest ingredient substitutions to lower the fat in that food item, for example, substituting applesauce for oil in muffins. Set up a blind taste test for regular and lower fat food items such as regular milk and skim milk; regular cheddar cheese and reduced fat; a regular cookie and the lower fat equivalent cookie; regular potato chips and the reduced fat version. Rate the foods before they know which item is regular and which is reduced fat. A comparison of fat-free vs. regular calorie foods is available online at: <a href="http://www.nhlbi.nih.gov/health/public/heart/obesity/lose\_wt/fat\_free.htm">http://www.nhlbi.nih.gov/health/public/heart/obesity/lose\_wt/fat\_free.htm</a>

## **Summative Assessments**

### Paper and Pencil

- Read Assessment #1: Just for the Health of It. Use the Just for the Health of It Check List to assess your learning regarding lifestyle habits and overall wellness. Develop an exercise plan, research a lifestyle health risk, make an oral presentation and a written report to demonstrate your learning. A Just for the Health of It Scoring Guide is included. (Competencies C-4, C-6)
- 2. Using the information from Instructional Strategy 1(b) related to soft drinks in schools, write a letter to the members of the School Board stating why vending machines that provide soda and candy should not be allowed in your school. Cite facts as well as your opinion in the letter. (Competency C-4)

## **Assess Nutrition and Wellness**

3. Many popular recipes call for ingredients that are traditionally higher in fat. Review Assessment Sheet 2(a): Ingredients to Lighten Up to discover some suggestions for ingredient substitutions that will reduce the fat in the overall recipe. Apply that information to Assessment Sheet 2(b): Recipes to Lighten Up by identifying ingredients to substitute in each recipe. You may want to use ingredient substitutions and cooking method substitutions to lower the overall fat content for some of the recipes. (Competency C-4)

## Classroom Experiences

1. Use Assessment Sheet #3: **Eating Disorders Scoring Guide** to evaluate the Eating Disorders Webquest Activity. Use credible sources to research eating disorders, make an oral presentation and use technology to create a presentation for this assessment. (Competency C-5)

## Application to Real Life

1. Bring in recipes from home that your family enjoys. Review the recipes and indicate ingredient substitutions or cooking method substitutions to lower the overall fat content. (Competency C-4)

Fact Sheet #1

## National Eating Disorders Association Statistics: Eating Disorders and their Precursors

## The Prevalence of Eating Disorders

In the United States, **as many as 10 million females and 1 million males** are fighting a life and death battle with an eating disorder such as anorexia or bulimia. Approximately **25 million more** are struggling with binge eating disorder (Crowther et al., 1992; Fairburn et al., 1993; Gordon, 1990; Hoek, 1995; Shisslak et al., 1995). Because of the secretiveness and shame associated with eating disorders, many cases are probably not reported. In addition, many individuals struggle with body dissatisfaction and sub-clinical disordered eating attitudes and behaviors. For example, it has been shown that **80%** of American women are dissatisfied with their appearance (Smolak, 1996).

## The Drive for Thinness

- **42%** of 1<sup>st</sup> 3<sup>rd</sup> grade girls want to be thinner (Collins, 1991).
- **81%** of 10 year olds are afraid of being fat (Mellin et al., 1991).
- The average American woman is **5'4**" tall and weighs **140** pounds. The average American model is **5'11**" tall and weighs **117** pounds.
- Most fashion models are thinner than **98%** of American women (Smolak, 1996).

## Dieting

- **51%** of 9 and 10 year-old girls feel better about themselves if they are on a diet (Mellin et al., 1991).
- **46%** of 9-11 year-olds are "sometimes" or "very often" on diets, and **82%** of their families are "sometimes" or "very often" on diets (Gustafson-Larson & Terry, 1992).
- **91%** of women recently surveyed on a college campus had attempted to control their weight through dieting, **22%** dieted "often" or "always" (Kurth et al., 1995).
- 95% of all dieters will regain their lost weight in 1-5 years (Grodstein, 1996).
- **35%** of "normal dieters" progress to pathological dieting. Of those, **20-25%** progress to partial or full-syndrome eating disorders (Shisslak & Crago, 1995).
- **25%** of American men and **45%** of American women are on a diet on any given day (Smolak, 1996).
- Americans spend over **\$40 billion** on dieting and diet-related products each year (Smolak, 1996).



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## Please also cite the National Eating Disorders Association's Information and Referral Helpline: 1-800-931-2237 and web site: www.NationalEatingDisorders.org



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Characteristics of Fad Diets							
1. Limited food choices							
2. Excludes certain food groups and lacks certain nutrients							
<ol> <li>Requires special or unusual foods or supplements, which can be expensive</li> </ol>							
4. Promotes rapid weight loss of more than 2 pounds per week							
<ol><li>Can only be followed for short periods of time (difficult to maintain)</li></ol>							
<ol><li>Diet backed by personal testimonies, rather than by sound medical research</li></ol>							
Weight loss occurs when the amount of calories consumed is less than the energy needed by the body.							
Source: Virginia Action for Health Kids							

## Fact Sheet #3

## **Body Mass Index and Health**

Many Americans are becoming overweight or obese (1-3). These conditions can lead to chronic diseases such as high blood pressure, diabetes, stroke, cancer, and diseases of the gallbladder, heart and lungs (1-8). Such diseases can reduce the quality of life and can also lead to death (1, 4, 9). Body Mass Index (BMI) is one of the commonly used measures of obesity.

## What is Body Mass Index (BMI)?

BMI is a ratio of a person's weight to height. BMI is commonly used to classify weight as "healthy" or "unhealthy."

## How is BMI determined?

BMI can be determined by using the following equation:

BMI= 705 x Body weight / (Height x Height) (in pounds) (in inches) (in inches)

Example:

A person who is 5 feet and 6 inches (66 inches) tall and weighs 155 pounds has a BMI of 25. 1 foot = 12 inches, therefore 5 feet = 5x12 = (60 inches) / 6 inches = 66 inchesBMI =  $705 \times 155 / (66 \times 66) = 25$ 

### What does BMI mean?

BMI values between 18.5 and 24.9 are considered "normal" or "healthy" weight. (Table 1). BMI values between 25 and 29.9 are considered "overweight" and 30 and above are considered "obese." BMIs above 25 are unhealthy and have been shown to increase the risk of certain chronic diseases (1-8). BMIs under 18.5 are considered "underweight."

#### **Table 1 Body Mass Index Categories**

BMI	Weight Category				
Less than 18.5	Underweight				
18.5-24.9	Normal Weight				
25 – 29.9	Overweight				
30 and above	Obese				

Table 2 can also be used to estimate BMI. Find height in inches. Move across to the right and choose the nearest weight in pounds. BMI can be found at the bottom of that column.

## Fact Sheet #3

## Table 2 Body Mass Index Look-up Table

Height

#### Weight in Pounds

4' 10" (58")	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
4'11" (59")	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
5′ (60″)	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
5′ 1″ (61″)	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
5′ 2 " (62")	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
5′ 3″ (63″)	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
5′ 4″ (64″)	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
5′ 5″ (65″)	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
5′ 6″ (66″)	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
5′ 7″ (67″)	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
5′ 8″ (68″)	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
5′ 9″ (69″)	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
5′ 10″ (70″)	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
5′ 11″ (71″)	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
6′ (72″)	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
6′ 1″ (73″)	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
6' 2" (74")	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
6' 3" (75")	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

## Can BMI be used by everyone?

For most people, BMI provides a good measure of obesity. However, BMI does not provide actual information on body composition (i.e. the properties of muscle, bone, fat, and other tissues that make up a person's total body weight), and may not be the most appropriate indicator to determine health status for certain groups of people. For example, athletes with dense bones and well developed muscles or people with large body frames may be obese by BMI standards (i.e. they have BMIs greater than 30), but yet have little body fat. On the other hand, inactive people may seem to have acceptable weights when, in fact, they may have too much body fat. Similarly, a petite gymnast may be considered underweight but not unhealthy (10). BMI, when used for children and adolescents who see still growing (11), pregnant women, people with large body frames, or petite and highly muscular individuals, should be interpreted cautiously.

### How does BMI relate to health?

BMI is generally related to body fat. Higher BMIs usually mean higher body fat (3). As body fat or BMI increases, especially from values equal to or greater than 30, health risks increase (3). Being overweight (BMI of 25 to 30) or being obese (BMI greater than 30) increases the risk of

## Fact Sheet #3 Continued

having high blood pressure, heart disease, stroke, diabetes, certain types of cancer, arthritis, and breathing problems (4-8). Research shows that being obese lowers one's life expectancy (4, 9). When overweight or obese people lose weight, they also lower their blood pressure, total cholesterol, LDL (or "bad") cholesterol, increase their HDL (or "good") cholesterol, improve their blood sugar levels, and reduce their amount of abdominal fat (4).

## What Research Studies Relate BMI to Diseases and Longevity?

In 1998, the National Institutes of Health issues a report to identify and treat obesity and overweight. Many scientific research studies suggest that weight loss reduces chronic diseases and improves the life span of people who are overweight. This report provided recommendations to clinicians and the public about weight management (3). In developing this report, more than 43, 627 research articles were obtained from a search of the scientific literature and reviewed by a panel of researchers. Researchers have examined the importance of weight reduction in people with high blood cholesterol (4), high blood pressure (5), diabetes (6), cancer (7), and osteoarthritis (8), and reported that weight loss reduces the risks for those diseases.

## Conclusions

The link between BMI and health shoes that overweight or obese people are more likely than those at normal weight to have medical problems such as high blood pressure, high cholesterol, stroke, diabetes, and heart disease. Research studies have shown that even a weight loss of 1-2 pounds per week for six months can improve the health of overweight people (3). The goal of weight loss should be to improve health. Rapid weight loss, swings in weight, and improper dieting should not be the goal (12, 13).

### Authors

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## **Related Web Sites**

You can find more information about BMI, weight, nutrition, and health by visiting the following web sites:

American Dietetic Association	
American Heart Association	
National Heart, Lung, and Blood Institute	
National Institutes of Diabetes, & Digestive & Kidney	<u></u> _
Diseases	<u>http://www.niddk.nih.gov/</u>

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Content

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Competencies C-4, C-6 Activity Sheet #1

Name

## Information Search: Lifestyle Habits That Increase Health Risks

## Most Common Causes of Death, United States, 2001\*

Condition	Rate
Diseases of the Heart	246.8
All Cancers	195.6
Stroke	57.7
Chronic lower respiratory diseases	43.6
Unintentional injuries	35.5
Diabetes mellitus	25.2
Influenza and pneumonia	21.8
Alzheimer's disease	19.0
Nephritis and nephrosis	13.9
All other causes	192.4

\*Rates are age adjusted to 2000 total U.S. population.

Select one of these "killer" diseases to investigate. You may use the Internet, library or classroom resources to search for information to answer the following questions.

- 1. Which disease did your group select?
- 2. What are the common risk factors that contribute to this disease? (A risk factor might be cigarette smoking, being overweight, etc.)
- 3. How might a person's diet or lifestyle increase his or her risk for this disease?
- 4. What steps could be taken to reduce the risk for this disease?
- 5. Where can you find credible information about this disease?

Competencies C-4, C-6 Activity Sheet #2	Name							
SEARCH	for Solution	ons						
The SEARCH for Solutions takes you step-by-step through the problem-solving process. Complete the steps below as you solve practical problems. You may go through the steps in a different order, but it is important to complete every step.								
State the problem to be solv	ved.							
Examine information needed	d to solve the problem.							
GOALS & VALUES:	FACTS:	CONSIDERATIONS:						
Analyze options or alternativ	/es.							
POSSIBLE SOLUTIONS:	POSSIBLE CONSEQUENCES:	EXPECTED OUTCOME:						
Review the options and select the best choice. Place a check beside your solutionlisted above. Provide logical reasons for your choice.Defend your solutions:Relevance to the problemEthical base (positive long-term effects on all involved)Ability to resolve the problemStrength based on facts								
${f C}$ hart and start a plan for action. Identify the actions you need to take, when they will be done, and who will do them.								
<b>H</b> ighlight the outcome of your actions. Evaluate whether or not your choice was best. Identify what you have learned from solving this problem. Did you discover another solution you could have tried?								

Content Module **3** 

## Competencies C-4, C-6 Activity Sheet #3

Student Ea	at Right	FCCLA
explore good nutri	dy topic area to help youn ition, eating disorders, hea regetarianism, and more	• • •
Have you heard the expression, "You are pays off both now and in the future. Good energy, ward off illnesses, and feel good-	I nutrition helps you control your wei	
Through "Eat Right" projects, young peop	le learn why and how to make wise	food choices.
	light Address Through Right" Projects	
On the list below, check the project areas people around you. Add your own ideas c		eds of other young
Then, circle your top three interests/concerperson's top three interests/concerns. Dis interests/concerns.		
nutrition basics		
□ how to use the fo	ood guide pyramid	
□ understanding fo	ood labels	
healthy snacking	]	
eating disorders	(anorexia, bulimia, gorging, etc.)	
□ facts and myths	about nutritional and herbal suppler	ments
□ how to build a he	ealthy diet as a vegetarian	
healthy eating or	n a budget	
☐ how to reduce for	ood waste	
🗆 safe food handlii	-	
Ŭ	for better sports performance	
•	for current and future health	
	ising influences eating habits	
	o nutrition and food safety	
© Family, Career and Community Leaders of Ame	rica. Inc. ● National FFCLA ● www.fcclainc.	.ora

Competency C-5 Activity Sheet #4

Name \_\_\_\_\_

# **Dieting Statistics in America**

Estimate the percentage for each question below. Write your answers in the blanks beside each question. Your teacher will provide the actual percentages. Compare your estimates to the research data.

 How many 1st-3rd grade girls say they want to be thinner?
 How many 10 year olds report they are afraid of being fat?
 What is the average height and weight of an American woman?
 What is the average height and weight of an American model?
 Most fashion models are thinner than what percent of American women?
 What percent of 9 and 10 year-old girls say they feel better about themselves if they are on a diet?
 What percent of 9-11 year-olds are "sometimes" or "very often" on diets, and what percent of their families are "sometimes" or "very often" on diets?
 What percent of women recently surveyed on a college campus had attempted to control their weight through dieting?
 What percent of all dieters will regain their lost weight in 1-5 years?
 What percent of "normal dieters" progress to partial or full-syndrome eating disorders?
 What percent of American men and what percent of American women are on a diet on any given day?
 Americans spend how much on dieting and diet-related products each year?



WebQuest Activity Sheet #5

## **Understanding Eating Disorders**

## Introduction

Eating disorders afflict millions of people, thousands of which will die from them yearly. A 1990 study by the National Association of Anorexia Nervosa and Associated Disorders, found that 11% of high school students suffer from an eating disorder.

You have noticed that your friend has had significant fluctuations in their weight in a short period of time. You fear your friend may become part of the statistics listed above and begin to wonder if your friend has an eating disorder. What should you do and who can help?

## Your Task

As a friend, you cannot ignore your suspicions; however you do not want to wrongly accuse your friend of having an eating disorder. You will be given a scenario in which you will use the Internet to research several disorders and figure out which disorder your friend is suffering from. After determining the disorder, your group will devise a set of strategies that can be used to help your friend overcome their problem.

Prepare a PowerPoint presentation concerning the information you have researched and present it to the class. In this presentation, your group will discuss the eating disorder, as well as the set of strategies that you formulated to help your friend.

### The WebQuest Investigation

There are mainly four types of eating disorders:

- anorexia nervosa
- bulimia
- compulsive overeating
- binge eating

Below are four scenarios that refer to one of the above disorders. Your group will be assigned to use one of these scenarios:

A. You have noticed that one of your friends has been very depressed lately. She or he has also had fluctuations in weight as well as low self esteem. You have tried to comfort your friend but your friend believes that everything will only be okay if they can just lose weight.

## **Assess Nutrition and Wellness**



*WebQuest* Activity Sheet #5 Continued

- B. Your friend has become severely critical of her weight. You have also noticed that she sometimes skips lunch at school; however, if she does eat lunch she always excuses herself to the bathroom before returning to class. Recently while searching for a piece of gum in her purse you found a box of laxatives.
- C. You have noticed that your friend eats very little at lunch; however, when you are with him on the weekend he tends to eat large quantities of food. Also, all of his conversations tend to be focused on his body image and lately he has been withdrawing from activities because of embarrassment about his weight.
- D. Your friend has become excessively thin yet she constantly complains that she is too fat. She has begun a strict workout routine after school which involves two hours of intense training. At school you have noticed she is always tired and last week she fainted at her locker. In addition, at lunch she is always concerned about the amount of calories that she is consuming.

## Step One

Your group needs to follow the two instructions below to help your friend.

- 1. Research the internet, library sources, and other materials to determine which eating disorder your friend has. (links are provided below)
- 2. Research strategies people use to overcome eating disorders.

## Step Two

Here are some Internet websites that may help you with your investigation.

<u>http://www.mirror-mirror.org/eatdis.htm</u> - This website has information concerning definitions, signs, symptoms, getting help, and approaching a loved one.

http://www.edauk.com/ - Provides information and help on all kinds of eating disorders.

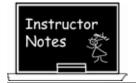
<u>http://www.something-fishy.org/</u> - Contains valuable information on anorexia nervosa, bulimia, and compulsive overeating.

http://www.anred.com/ - information about all types of eating disorders.

<u>http://www.nlm.nih.gov/medlineplus/eatingdisorders.html</u>- Medline Plus is a service of the U.S. National Library of Medicine and the National Institutes of Health. Includes links to a variety of other resources.

<u>http://www.nimh.nih.gov/publicat/eatingdisorders.cfm</u> - National Institute of Mental Health offers information and suggestions for helping.

## **Assess Nutrition and Wellness**



*WebQuest* Activity Sheet #5 Continued

## Step Three

Design your own strategy for helping your friend overcome their disorder. Tips:

- a) Choose who you will discuss this problem with
- b) Determine which health care professionals should be contacted
- c) Make sure you confront your friend in a setting where they will not feel threatened
- d) Do not make accusations when confronting your friend

## **Evaluation**

Develop a PowerPoint presentation to share with your friend to help her or him understand about the eating disorder. Your PowerPoint presentation should be 5-10 minutes in length and include the following...

- A definition of the eating disorder for which your group researched.
- Signs and symptoms
- At least one strategy your group found on the Internet that is currently being used to help someone overcome an eating disorder
- A strategy designed by the group.

## **Conclusion**

In this activity you have learned about many eating disorders. Not only have you gained information about the eating disorder your team extensively researched, you have also learned about the other disorders presented by your classmates. In addition to learning about eating disorders, you have also strengthened your research, group work, and presentation skills. Although this was a class assignment, remember that the knowledge you have gained can be applied in real life situations. It is also important to remember that you should always seek professional help if this type of situation actually arises.

# Eating Disorders Webquest Scoring Guide

Criterion	3	2	1	Score
Research and	Diagnosed the	Diagnosed the	Diagnosed the	
Accuracy	correct eating	correct eating	correct eating	
	disorder for the	disorder for the	disorder for the case	
	case study.	case study.	study. Consulted a	
	Consulted a	Consulted a	minimum of 2	
	minimum of 5	minimum of 3	credible sources.	
	credible sources.	credible sources.	Information was	
	Information was	Information was	accurate though not	
	accurate and	accurate through	complete.	
	complete.	not complete.		
Oral	All members	Not all members	Not all members	
Presentation	participated.	participated. Voices	participated. Voices	
	Voices projected	projected	projected throughout	
	throughout the	throughout the	the classroom.	
	classroom.	classroom.	Important information	
	Important	Important	was missing.	
	information was	information was		
	stressed.	included.		
PowerPoint	Good use of visual	Good effort to	Limited use of visual	
Presentation	design and graphic	include graphic	design and graphic	
	elements.	elements.	elements.	
	Presentation met	Presentation met	Presentation did not	
	time requirements	time requirements	meet time	
	and supported oral	and generally	requirements,	
	presentation.	supported oral	generally supported	
One un Otrete au	A nanan ni ata la a altik	presentation.	oral presentation.	
Group Strategy	Appropriate health	Appropriate health	Appropriate health	
	care providers were identified to	care providers were	care providers were	
		identified to help.	identified to help.	
	help. Group	Group strategy was	Group strategy was	
	strategy was appropriate and	appropriate though somewhat	appropriate though entirely unrealistic.	
	realistic.	unrealistic.	entirely unrealistic.	
Teamwork	All team members	All team members	Not all team	
IEdiliwork	participated	participated	members participated	
	throughout the	throughout the	in the project. Time	
	project. Time and	project. Time and	and other resources	
	other resources	other resources	were utilized though	
	were well utilized.	were well utilized at	team was sometimes	
	Team was	times. Team was	disorganized.	
	organized.	usually organized.	alourgamzeu.	
	organizeu.	usually organized.		

## TOTAL POINTS

## Competency C-6 Activity Sheet #6

Name

# Calculate Your Basal Metabolic Rate

You burn calories or use energy no matter what you're doing, or not doing. Even when you are lying on the sofa just watching television your body is burning calories to maintain your heartbeat, breathing and normal body temperature. Your Basal Metabolic Rate (BMR) is the number of calories you burn every day doing nothing. This is the minimum number of calories you need each day. Your level of physical activity each day requires additional energy.

Basal Metabolic Rate decreases as you age. Likewise, skipping meals in hopes of losing weight also decreases your BMR; within a few days your body adapts to receiving less fuel and it slows down to conserve energy. Therefore, eating regular, balanced meals every day (not skipping meals) and a regular routine of cardiovascular exercise can increase your BMR and help you burn more calories each day rather than store calories as fat.

To get an estimate of your BMR, complete the following calculation:

Males: your weight X 12 = your BMR



Females: your weight X 11 = your BMR

\_\_\_\_ X 11 = \_\_\_\_

This calculation provides an estimate of your BMR. To get an exact calculation of your BMR you would need to consult a nutritionist or dietitian.

If you consumer more calories each than you burn, your body will store those calories as fat, whether the calories originated from protein, carbohydrate, fat or alcohol — **if you do not use it, your body will store it.** 

Competencies C-5, C-6 Activity Sheet #7

Name \_\_\_\_\_

## **Setting My Goals for a Healthy Weight**

Write the answers to the questions below to help you make a plan and set goals for a healthy weight that is realistic for you.

1. Starting with today. What are your feelings today about your current body weight and level of fitness?

2. List at least three goals that will help you change your body weight or level of fitness. Be specific. Don't say, "I plan to cut back on snack foods." Do say, "I will cut back to only one soda per day." That is more specific and measurable. Also, list the date or amount of time you need to achieve these goals. 3. Is your current diet meeting the guidelines recommended by the Dietary Guidelines for Americans, 2005? If not, what areas can you improve? 4. List some foods below that will help you balance your diet to meet the dietary guidelines. 5. List any foods below that you need to avoid. These foods may be high in calorie content, you may consume too much of these foods, or they may lack nutrient value.

## Competencies C-5, C-6 Activity Sheet #8

Name \_\_\_\_

## Keeping Track of My Progress Toward a Healthier Lifestyle

Go over this checklist every week to answer each question Yes or No. Review your progress to determine what adjustment you need to make to stay on track to meet your goals.

Weekly Progress Check	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
1. I am committed to making a change.						
2. My goals are realistic for me.						
3. Include exercise every day						
4. I consume less fat in my diet.						
5. I monitor the total calories in my diet.						
6. I eliminated extra foods that I don't need.						
<ol> <li>I avoid automatic eating "just because." Just because I always have a snack after school. Just because everyone else was having dessert. Just because I was watching tv.</li> </ol>						
8. I plan meals ahead of time.						
9. I control the portion sizes that I eat.						
10. I eat slowly and only at the table.						
11. I avoid social binges with friends.						
12. I do not eat out more than once per week. When I do eat out, I choose foods carefully and monitor the portion sizes I eat.						
13. I have a strong support group to help me keep focused on my goals.						
14. I think positive thoughts.						
15. I reward myself for small achievements.						

## Competencies C-4, C-6 Assessment #1

Name

## Just For the Health of It

Jarod, a lifelong friend of yours, has lost over 200 pounds over the last two years. When he realized that his XXXXL size and history of family health problems was dangerous and ruining his love life, he decided to make some changes. Utilizing Subway's low fat sandwich menu items incorporating exercise by walking to the restaurant everyday, he is now both fit and trim.

Unfortunately, yesterday as Jarod was walking through Best Buy, the 100 TVs blared CNN's latest breaking story. Jarod couldn't believe his ears when the newscaster announced, "Subway is going out of business! All stores will close at midnight tonight."

Distraught by the news and fearing the consequences, Jarod comes to you in a panic. "What will I do everyday for lunch now? Will I actually have to plan my own meals?" Because of your expertise in nutrition and wellness, he asks for your help. Jarod wants to know what YOU do to maintain a healthy lifestyle.

You are excited by the opportunity to apply all of your knowledge to help out a friend. Jarod has asked that you provide him you daily menu plans, exercise regimen, and helpful information about the health issues that plague his family.

You have decided to provide Jarod with the following useful information:

A 3-day menu plan including breakfast, lunch, dinner, and snacks. At least one meal must come from a fast food restaurant. This plan will follow the dietary guidelines and include the appropriate number of servings from each group in the food guide pyramid. An appropriate representation of the essential nutrients must be incorporated into each menu. To best explain your plan to Jarod, you list the menu plan and then write an analysis of each daily menu including all of the above information.

An exercise plan including the type of exercises he should do, the duration and frequency of the activity, the number of calories that are burned in a given amount of time, and the health benefits of following your plan.

Research one health concern that plagues Jarod's family. (Jarod's family has had a lot of health problems -- diabetes, high blood pressure, heart disease, high cholesterol, osteoporosis, obesity, anorexia, and cancer. You should explain to Jarod how the disease is related to nutrition and fitness, common symptoms, and dietary/lifestyle recommendations.

Assemble all of the information into a report that is bound and includes a cover page. Use the Just for the Health of It Check List to ensure you have completed everything for this assignment. You will make an oral presentation of your plan to Jarod (the class).

Jarod is counting on you to help him maintain the health and fitness levels he has worked so hard to achieve. Don't let him down.

# Just For the Health of It Checklist

Presentation	Self	Peer	Teacher
Bound			
Colorful/Creative Cover page			
Project well-planned/organized			
Project is neatly typed			
<u>3-Day Menu</u>			
3 complete daily menus (breakfast, lunch, dinner, snacks)			
one meal comes from a fast-food restaurant			
Dietary Guidelines incorporated into daily menu			
Appropriate # of servings represented			
Appropriate representation of essential nutrients			
Written analysis of each daily menu is thorough and			
well-written			
Exercise Plan			
Types of exercise identified			
Duration and frequency of activity			
# of calories burned in a given time period listed			
Health benefits included			
Health Concern			
Cause of the health concern identified			
Symptoms of the health concern identified			
Dietary changes/recommendations identified			

Content Module

3

Criterion	3	2	1	Score
Presentation	Develops a final product that meets all check list items. Clearly, creatively & effectively communicates the main idea and purpose.	Develops a final product that meets all check list items. Communicates the main ideas accurately and adequately.	Develops a final product that communicates important information. May include some fact errors or some information may be lacking or unclear.	
3-Day Menu	Menu is complete with serving sizes, nutrients, food groups, etc. Menu meets all Dietary Guidelines.	Menu is mostly complete with serving sizes, nutrients, food groups, etc. Menu meets most of the Dietary Guidelines.	Menu is complete although some details may be missing or incorrect such as serving sizes, nutrients, or food groups. Dietary Guidelines omitted.	
Menu Analysis	Written analysis is clear and complete. Demonstrates an understanding of the role of the Dietary Guidelines and MyPyramid in planning healthful meals.	Written analysis is clear and complete. No more than 3 errors in applying the Dietary Guidelines and MyPyramid in planning healthful meals.	Written analysis is clear and complete. More than 3 errors in applying the Dietary Guidelines and MyPyramid in planning healthful meals.	
Fitness Plan	Provides a complete and accurate explanation of the exercise and expected outcomes.	Provides a nearly complete explanation of the exercise and expected outcomes. Accurate though some detail may be missing.	Provides an explanation of most exercises. Accurate though some detail may be missing.	
Health Concern Research	Research is thorough and information is accurate. Only credible sources are cited; two or more sources are used. Recommendations for lifestyle changes are appropriate.	Research is accurate. Only credible sources are cited; two or more sources are used. Recommendations for lifestyle changes are appropriate.	Research is accurate. Only credible sources are cited; Recommendations for lifestyle changes are weak or missing.	

Total Score:

Comments: \_\_\_\_\_

## Competency C-6 Assessment 2(a)

Name \_\_\_\_\_

# **Lighten Up**

Instead of a high-fat ingredient like sour cream or mayonnaise, substitute lowfat yogurt. Or switch to skim milk instead of using whole. It's these little here-and-there changes that add up to big fat-and-calorie savings.

		And save	
Instead of	Substitute	Fat, grams	Calories
Whole milk (1 cup)	Skim milk (1 cup)	8	64
Whole egg (1)	Egg whites (2)	6	47
Cream cheese (1 oz)	Neufchatel (1 oz)	3	24
Ricotta cheese (1/2 cup)	1% cottage cheese (1/2 cup)	14	52
Cheddar cheese (1 oz)	Mozzarella, skim (1 oz)	4	42
Heavy cream (1 Tbl)	Half and half (1 Tbl)	32	15
Sour cream (1/2 cup)	Lowfat yogurt (1/2 cup)	18	172
Fudge sauce (2 Tbl)	Chocolate syrup (2 Tbl)	4	32

Source: The Healthy Weigh: A Practical Food Guide. The American Dietetic Association. 1991.

## Competency C-4 Assessment #2(b)

1 lb Italian sausage

1 Tbl basil

2 eggs

cheese

1 tsp salt

1/2 tsp pepper

3 c Ricotta

1 1/2 tsp salt

1 clove garlic, minced

1 16 oz can whole tomatoes

1/2 c grated Parmesan or Romano

1 lb mozzarella cheese, sliced very thin

**Chicken Pot Pie** 

2 6 oz cans tomato paste

10 oz lasagne noodles

2 Tbl parsley flakes

Pastry for 2-crust pie

1/2 c chopped onion

1/2 c all-purpose flour

3 c cubed cooked chicken

1 10-oz pkg frozen peas and carrots

1/4 c chopped canned pimiento

1 c heavy cream

3 c chicken broth

6 Tbl butter

Name

# **Recipes to Lighten Up**

Review the recipes below and indicate ingredient substitutions or cooking method substitutions to lower the overall fat content.

#### Lasagne

2 c shredded lettuce 1 15-oz can dark red kidney beans, drained 2 med. tomatoes, chopped 1 Tbl chopped canned green chilies 1/2 c sliced ripe olives 1 large avocado, chopped 1/2 c dairy sour cream 2 Tbl bottled salsa 1 tsp minced onion 3/4 tsp chili powder 1/4 tsp salt 1/2 c shredded Cheddar cheese 1/2 c crushed corn chips

## **Cheeseburger and Fries**

## 1 1/4 lb hamburger patty

- 1 hamburger bun
- 1 slice Cheddar cheese
- ketchup or mustard and pickles
- 1 c frozen French fries
- 1/4 c shredded Cheddar cheese
- 1/4 c Ranch dressing

Fry hamburger patty until no pink remains. Top with sliced Cheddar cheese and allow cheese to melt slightly. Serve cheeseburger on bun with condiments.

Deep fry French fries until golden brown. Drain. Top with shredded Cheddar cheese. Serve Ranch dressing on the side as a dip.

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### Taco Salad