

by Yvonne Gentzler, Ph.D Liz Romero, Ph.D.



Goodheart-Willcox Co., Inc. Tinley Park, Illinois

Topic 12-4 Balancing Calories and Energy Needs

- In this topic, you will learn how to balance calories and energy needs, as well as
 - Meeting energy needs
 - Controlling your weight
 - ***** Eating disorders

Balancing Calories and Energy Needs

Objectives for Topic 12-4

After studying this topic, you will be able to

- identify factors that affect energy needs for metabolic and physical activity
- outline guidelines for healthy weight loss and healthy weight gain
- describe two common eating disorders

Topic 12-4 Terms

- * calorie
- * basal metabolism
- body mass index(BMI)
- * overweight

- obese
- * underweight
- anorexia nervosa
- bulimia nervosa

Meeting Energy Needs

- *Calories* are units of measurement for food energy
- Calorie needs are based on a person's
 - * sex
 - age
 - size
 - physical activity

Metabolic Energy Needs

- Basal metabolism includes the life-sustaining activities that account for energy expended when the body is at physical, emotional, and digestive rest
- Basal metabolic rate can vary from person to person based on
 - age
 - glandular secretions
 - body temperature

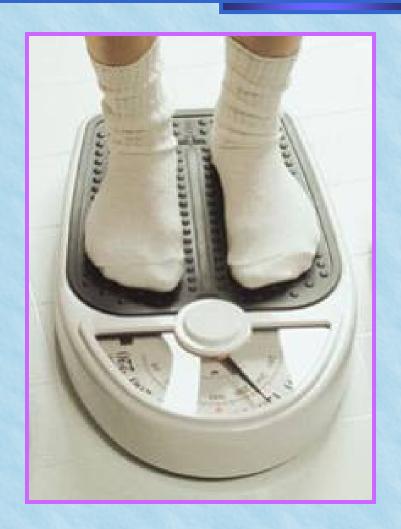
Energy for Physical Activities



- Physical activity
 raises energy needs
 above basal
 requirements
- Very active people need more calories; less active people need fewer calories

Controlling Your Weight

- Weight management involves both eating and physical activity
- To control your weight, compare the calories you eat with the calories you burn



How Much Should You Weigh?

- **Body mass index (BMI)** is a calculation used by health professionals to assess an adult's weight in terms of his or her height
- For adults age 21 and over, a BMI of 18.5 to 25 is considered healthy weight
- An adult who has a BMI of 25 up to 30 is overweight
- A person with a BMI over 30 is considered obese

How Much Should You Weigh?

- Children and teens, ages 2–20, have different body-fatness levels as they grow and mature
 - Their BMI is determined differently than adults
- Overweight children and adolescents are not encouraged to lose weight
 - Young people can "grow into" leaner bodies
 - Weight loss could negatively affect normal growth

Healthy Weight Loss

- Balance food and physical activity
- Spend 60 minutes per day in physical activity



- Base your diet on grains, vegetables, and fruits
- Avoid omitting any group of foods from your diet
- Beware of fad diets

Healthy Weight Gain

- *Underweight* people have a BMI below 18.5
- To gain weight,
 - chose nutritious foods that provide more calories per serving
 - increase portion sizes
 - add nutritious snacks
 - * eat five or six small meals a day

Did You Know...

- Extremely low weights can cause health concerns such as
 - respiratory diseases
 - * tuberculosis
 - digestive disorders
 - some cancers
 - infertility

Source: American Council on Exercise

Eating Disorders

- Eating disorders are abnormal eating patterns that threaten a person's health
 - * Anorexia nervosa is an eating disorder in which a person avoids eating, sometimes to the point of starvation
 - * Bulimia nervosa is an eating disorder in which people go on eating binges and consume excessive amounts of calories

Did You Know...

■ 86% of people with eating disorders report the onset of the illness by the time they are 20 years old

Source: National Association of Anorexia Nervosa and Associated Disorders

Summary for Topic 12-4

- Your body needs energy for both metabolic and physical activities
- Balancing these needs with the calories you obtain from foods will allow you to control your weight
- Being either underweight or overweight can cause health problems
- People who need to gain or lose weight should take steps to do so in a healthful manner