

Exercise, Diet, and Weight Control

EXS 150
Chapter 8

Objectives

- Define obesity and discuss potential causes, and explain why obesity is considered to be unhealthy.
- Explain the concept of optimal body weight.
- Discuss energy balance and explain the roles of resting and exercise metabolic rate in daily energy expenditure.

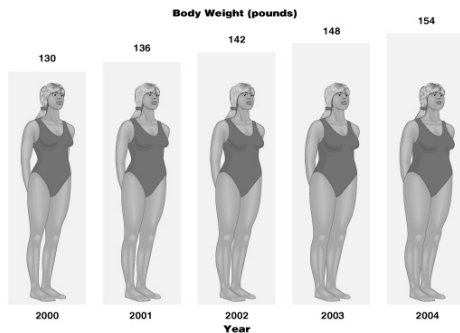
Objectives, cont'd

- Outline a simple method to estimate your daily caloric expenditure.
- List and define the four basic components of a weight loss program.
- Discuss several weight loss myths.
- Define *anorexia nervosa* and *bulimia*.
- Discuss strategies to gain body weight.

Obesity

- 65 million people in the U.S. are obese
 - Males > 25% fat
 - Females > 30% fat
- Obesity increases the risk for 26 different diseases
- Obesity is related to both genetics and lifestyle
 - Children of obese parents have a greater risk of becoming obese
 - Creeping obesity

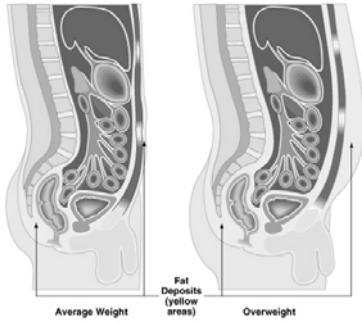
Creeping Obesity



Body Fat and Fat Storage

- Site for body fat storage is genetically determined
 - Many men store excess fat in the abdominal area
 - Most women store fat in the lower body
- Researchers disagree on exact percentages of body fat that are considered optimal
- Optimal % body fat
 - Males = 10-20%
 - Females = 15-25%

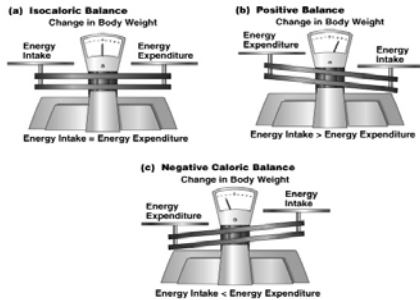
Body Fat Storage



Caloric Balance

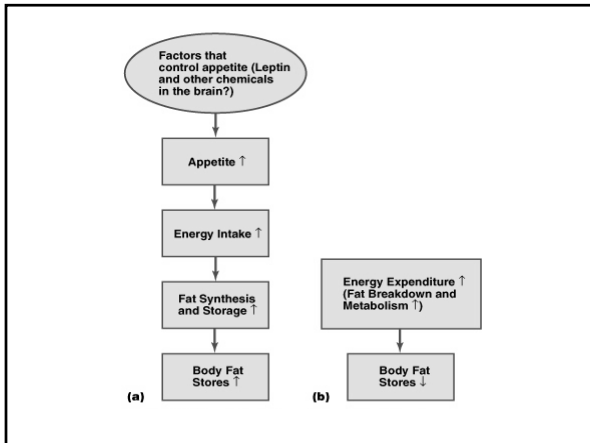
- Isocaloric balance maintains a constant body weight
energy intake = energy expenditure
- Positive caloric balance increases body fat
energy intake > energy expenditure
- Negative caloric balance reduces body fat
energy intake < energy expenditure

Energy Balance Concepts



Daily Energy Expenditure

- Total daily energy expenditure = resting metabolic rate + exercise metabolic rate
 - Resting metabolic rate (RMR) is the amount of energy expended during all sedentary activities
 - Exercise metabolic rate (EMR) is the energy expenditure during any form of exercise



How Do We Lose Fat?

- Creating a fat deficit is essential in fat loss
 - Fat usage > fat intake
 - Low-fat diet
- One pound per week is generally considered safe
 - Negative energy balance of approximately 3500 calories/week
- Rate of weight loss is greater during the first several days of dieting

Four Basic Components of a Comprehensive Weight Loss Program

- Establishing weight loss goals
- Reduced caloric diet that stresses balanced nutrition
- Exercise program
- Behavior modification program aimed at changing eating behavior

What Should Your Diet Be?

- Low in calories but containing essential nutrients
- Low in fat
- Containing a variety of foods
- Compatible with your lifestyle
- Lifelong
- Consisting of healthy foods

Weight Loss and Exercise

- Exercise plays a key role in weight loss
 - Both low and high intensity exercise can assist in weight loss
 - Cardiorespiratory and strength training are recommended

Weight Loss and Behavior Modification

- Behavior modification is a key factor in achieving both short-term and long-term weight loss
- Eating behaviors are learned
- Behavior modification is a means of eliminating improper eating habits

Weight Loss Myths

- Diet pills
- Spot reduction
- Eating before bed
- Cellulite
- Fat dissolving creams
- Saunas, steam baths, and rubber suits

Eating Disorders

- The incidence of eating disorders has grown in recent years
- Extreme anorexia nervosa results in a state of starvation due to a refusal to eat
- Bulimia is the repeated ingestion of large quantities of food and then vomiting to prevent weight gain
