



CHAPTER ONE

INTRODUCTION TO WELLNESS, FITNESS AND LIFESTYLE MANAGEMENT

DEFINE KEY TERMS AND CONCEPTS

1. Wellness
2. Infectious disease
3. Chronic disease
4. Physical fitness
5. Health diet
6. Unintentional injuries
7. Lifestyle management
8. Target behavior
9. Self-efficacy

10. Locus of control

11. Visualization

12. Barriers to change

13. Contemplation

14. Procrastination

STUDY QUESTIONS

Wellness: The New Health Goal

Briefly describe the concept of “wellness.”

List the six dimensions of wellness.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

The Dimensions of Wellness

List the six interrelated dimensions of wellness

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Physical Wellness

List five requirements to attain physical wellness.

- 1.
- 2.
- 3.
- 4.
- 5.

Emotional Wellness

List five characteristics of emotional wellness.

- 1.
- 2.
- 3.
- 4.
- 5.

Intellectual Wellness

List three characteristics of intellectual wellness.

- 1.
- 2.
- 3.

Spiritual Wellness

List three characteristics of spiritual wellness.

- 1.
- 2.
- 3.

Interpersonal and Social Wellness

List two characteristics of interpersonal and social wellness.

- 1.
- 2.

Environmental, or Planetary Wellness

List two characteristics of environmental wellness.

- 1.
- 2.

New Opportunities, New Responsibilities

Give one reason life expectancy has nearly doubled in the last century.

List the three leading chronic diseases of the modern era.

- 1.
- 2.
- 3.

Give the “best” treatment for chronic disease.

National Wellness Goals

List the two broad national Healthy People 2010 goals (See Table 1.3).

- 1.
- 2.

List three major objectives of the Healthy People 2010 report.

- 1.
- 2.
- 3.

Behaviors That Contribute to Wellness

List six behaviors and habits most important to maintain wellness.

- 1.
- 2.

3.

4.

5.

6.

Be Physically Active

More than _____ % of Americans are not regularly physically active, and more than _____% are not active at all.

Name four chronic diseases positively affected by chronic physical activity.

1.

3.

2.

4.

Choose a Healthy Diet

List three dietary factors that contribute to the development chronic diseases.

1.

2.

3.

Maintain a Healthy Body Weight

List three diseases associated with obesity.

1.

2.

3.

Manage Stress Effectively

List two negative behaviors generally associated with higher stress levels.

1.

2.

Avoid tobacco and Drug Use and Limit Alcohol Consumption

Tobacco use is associated with ____ of the top 10 causes of death in the US.

Excessive alcohol consumption is associated with ____ of the top 10 causes of death in the United States.

List the five leading causes of death in the United States (See Table 1.2).

- 1.
- 2.
- 3.
- 4.
- 5.

Protect Yourself from Disease and Injury

Give the best way to deal with injury and disease.

Role of Other Factors in Wellness

Name two other factors besides behavior involved in good health.

- 1.
- 2.

Reaching Wellness Through Lifestyle Management.

List three benefits derived from making progress towards a healthy lifestyle.

- 1.
- 2.
- 3.

Getting Serious About Your Health

Examining Your Current Health Habits

The journey towards wellness begins with _____ - _____.

Choosing a Target Behavior

How can you maximize your chances of success when starting a wellness program?

List two questions you need to consider regarding your chosen target behavior.

- 1.
- 2.

Finding Outside Help

Give one outside help example to assist you with changing behaviors.

Building Motivation to Change

Give one reason young people are unmotivated to change behaviors.

Examining the Pros and Cons of Change

Give an example of a short-term and long-term benefit and costs of changing an inactive lifestyle.

Short-term benefit:

Short-term cost:

Long-term benefit:

Long-term cost:

List two factors that increase motivation to change.

- 1.
- 2.

Boosting Self-Efficacy

List three strategies to boost self-efficacy.

- 1.
- 2.
- 3.

Locus of Control

Briefly describe internal locus of control.

Give two examples of external locus of control

- 1.
- 2.

Visualization and Self-Talk

List one way to boost self-confidence.

Role Models and Other Supportive Individuals

Identify one person in your life you consider to be a role model.

Identifying and Overcoming Key Barriers to Change

List one example of a barrier to change.

Enhancing Your Readiness to Change

Name the model that serves as an effective approach to lifestyle self-management.

Identify the six steps (stages) in the “stages of change” model of self-management. Briefly give the approximate time frame for each stage, or an important fact about each.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Developing Skill for Change: Creating a Personalized Plan

A well thought-out plan includes the following three parts.

- 1.
- 2.
- 3.

List the five steps when designing a plan of action for behavior change.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

List the five important strategies and techniques that support a behavior plan-of-action.

- 1.
- 2.
- 3.
- 4.
- 5.

Putting Your Plan into Action

What is the most important aspect of an action plan for behavior change?

Staying With It

List five possible sources that may block your progress once you start your behavior change program.

- 1.
- 2.
- 3.
- 4.
- 5.

Being Fit and Well For Life

List seven specific signs of wellness.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

PRACTICE QUIZ

Multiple Choice Questions

1. The six dimensions of wellness include all of the following EXCEPT:
 - a. emotional wellness
 - b. environmental, or planetary, wellness
 - c. spiritual wellness
 - d. dietary wellness
2. Physical wellness includes:
 - a. learning about symptoms of disease
 - b. self-confidence
 - c. compassion
 - d. cultivating a support network of caring friends and/or family

3. Components of optimism, trust, and self-confidence:
 - a. physical wellness
 - b. emotional wellness
 - c. spiritual wellness
 - d. interpersonal wellness
4. Example of capacity to think critically:
 - a. emotional wellness
 - b. intellectual wellness
 - c. interpersonal and social wellness
 - d. spiritual wellness
5. Best describes emotional wellness?
 - a. taking time to explore your thoughts
 - b. getting regular medical checkups
 - c. being open to new ideas
 - d. finding principles by which to live your life

True/False Questions

1. The wellness concept defines health as absence of disease.
2. Self-control is one characteristic of a person who possesses good emotional health.
3. In 1900, a person was most likely to die from chronic diseases.
4. Prevention is the most effective way to deal with chronic disease.
5. Approximately 60% of all Americans exercise regularly.

LABORATORY ACTIVITIES

Complete Lab 1.1 and 1.2. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

1. Discuss barriers to wellness specific to males and females and people of different ethnic backgrounds.
2. Fast forward 25 years and project what you believe will be your major health issues.



CHAPTER TWO

BASIC PRINCIPLES OF PHYSICAL FITNESS

DEFINE KEY TERMS AND CONCEPTS

1. Physical activity
2. Exercise
3. Health-related fitness
4. Cardiorespiratory endurance
5. Muscular strength
6. Metabolism muscular endurance
7. Flexibility
8. Body composition
9. Fat-free mass

10. Skill-related fitness

11. Physical training

12. Specificity

13. Progressive overload

14. Principles of physical training

15. Reversibility

16. Exercise stress test

17. Graded exercise test (GXT)

18. Physical activity pyramid

19. Overtraining

20. FITT

21. Progressive overload

22. Training threshold

STUDY QUESTIONS

List five major benefits of physical activity.

- 1.
- 2.
- 3.
- 4.
- 5.

Physical Activity and Exercise for Health and Fitness

Give the average percentage of adults currently engaged in all types of physical activity (see figure 2.1).

List three summary points from the 1996 Surgeon General's report on physical activity and health.

- 1.
- 2.
- 3.

Give one reason why people are not more physically active.

Physical Activity on a Continuum

Give one way to define physical activities.

Explain the main difference between exercise and physical activity.

Lifestyle Physical Activity for Health Promotion

Give the Surgeon General's recommendation regarding the amount of kCals that should be expended on most days for most people.

Give three examples of “moderate” amounts of physical activity.

- 1.
- 2.
- 3.

Give five examples of ways to fit increased physical activity into your lifestyle (See “Taking Charge: Making Time for Physical Activity”).

- 1.
- 2.
- 3.
- 4.
- 5.

True or False: The daily total amount of physical activity must be accumulated in a single prolonged bout of activity each day.

True or False: A program of 30 minutes of lifestyle activity per day may also *not* be enough activity for some people to achieve a healthy body weight or increase physical fitness.

Lifestyle Physical Activity for Health Promotion and Weight Management

Give the number of minutes per day of physical activity recommended by the Institute of Medicine to achieve and maintain a healthy bodyweight for many people.

Exercise Programs to Develop Physical Fitness

Briefly describe the Surgeon General’s conclusion regarding the benefits of more formal exercise programs.

How Much Physical Activity is Enough?

Briefly discuss factors to consider when deciding how much physical activity a person requires.

Health Related Components of Physical Fitness

List the five components of physical fitness important for health.

- 1.
- 2.
- 3.
- 4.
- 5.

Cardiorespiratory Endurance

List seven factors that determine cardiorespiratory endurance.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Muscular Strength

List two factors that determine muscle strength.

- 1.
- 2.

Give two reasons why strong muscles are important.

- 1.
- 2.

Older people tend to lose both _____ and _____ of muscle cells.

Muscular Endurance

List three factors that determine muscle endurance.

- 1.
- 2.
- 3.

Muscular _____ in the trunk muscle is more important than muscular _____ to prevent back pain.

Flexibility

List three factors that determine joint flexibility.

- 1.
- 2.
- 3.

Body Composition

A person with excessive body fat located mainly in the _____ is more likely to experience a variety of health problems.

The best way to add muscle mass is through _____ training.

Skill-Related Components of Fitness

List six components of skill-related fitness.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Give the best way to improve skill-related fitness.

Principles of Physical Training: Adaptation to Stress

List two goals of physical training.

- 1.
- 2.

Specificity- Adapting to Type of Training

Give one example of specificity of training.

Progressive Overload- Adapting to Amount of Training and the FITT Principle

Give an example of progressive overload.

List two factors that determine the amount of exercise needed to obtain maximum benefits from training.

- 1.
- 2.

List the four variables that represent the FITT principle.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Frequency

Give the optimum frequency (in days per week) of regular physical activity to develop cardiorespiratory endurance.

Intensity

Fitness benefits occur when a person exercises _____ than his or her normal level of activity.

Time (Duration)

What is the optimum duration (time) required to develop cardiorespiratory endurance.

Type (Mode of Activity)

What is the optimum mode of activity to develop cardiorespiratory endurance.

Reversibility—Adapting to a Reduction in Training

When a person stops exercise, up to ___% of fitness improvements are lost within ___ months.

True or False: All fitness levels reverse at the same rate.

Individual Differences - Limits on Adaptability

Give one example of individual differences related to training.

Designing Your Own Exercise Program

List three variables you need to consider when designing an exercise program.

- 1.
- 2.
- 3.

Medical Clearance

List three health conditions that would require a medical clearance prior to starting an exercise program.

- 1.
- 2.
- 3.

Assessment

Give the primary purpose of pre-exercise assessment.

Setting Goals

State the ultimate goal of every health-related fitness program.

Choosing Activities for a Balanced Program

List the four components of the physical activity pyramid.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

List the four components of a well-balanced fitness program.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Guidelines for Training

List and briefly describe fifteen guidelines to ensure an effective and successful exercise-training program.

- | | |
|----|-----|
| 1. | 9. |
| 2. | 10. |
| 3. | 11. |
| 4. | 12. |
| 5. | 13. |
| 6. | 14. |
| 7. | 15. |
| 8. | |

PRACTICE QUIZ

Multiple Choice Questions

1. What percentage of Americans are not physically active at all?
 - a. 5%
 - b. 15%
 - c. 25%
 - d. 50%
2. According to the Surgeon General's report on physical activity, which of the following statements is FALSE?
 - a. people of all ages benefit from regular physical activity
 - b. modest increases in daily activity can improve health
 - c. more vigorous or longer duration activity can lead to greater health
 - d. regular exercise provides more benefits to women than men
3. Physical activity can be defined as:
 - a. muscular movement of the body that requires energy to produce the movement
 - b. any condition that elevates heart rate
 - c. aerobic exercise
 - d. strength training
4. Exercise is a subset of physical activity that is:
 - a. discontinuous and unplanned
 - b. planned, structured, and repetitive
 - c. not a contributor to physical fitness
 - d. random or unstructured
5. The Surgeon General's report on physical activity recommends:
 - a. high-intensity exercise
 - b. exercising 1 or 2 days per week
 - c. burning about 150 calories per day through physical activity
 - d. some type of resistance training every day

True/False Questions

1. Physical activity levels have decreased in recent years.
2. To obtain health benefits, daily physical activity should be done in one session rather than multiple bouts.
3. Low-intensity physical activity is likely to improve health but not fitness.
4. Cardiorespiratory endurance training is the best way to increase fat-free mass.
5. Balance is considered a skill-related fitness component.

LABORATORY ACTIVITIES

Complete Lab 2.1, 2.2 and 2.3. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

Describe the most important components of physical fitness and different exercises that promotes optimal fitness.



CHAPTER THREE

CARDIORESPIRATORY ENDURANCE

DEFINE KEY TERMS AND CONCEPTS

1. Physical activity
2. Pulmonary circulation
3. Systemic circulation
4. Atria
5. Venae cavae
6. Ventricles aorta
7. SA node
8. Systole
9. Diastole

10. Blood pressure
11. Veins arteries
12. Capillaries
13. Respiratory system
14. Alveoli
15. Cardiac output
16. Glucose
17. Glycogen
18. Adenosine triphosphate
19. Immediate energy system
20. Non oxidative energy system
21. Anaerobic

22. Lactic acid

23. Oxidative energy system

24. Aerobic

25. Mitochondria

26. VO_{2max}

27. Free radicals

28. Cardiovascular disease

29. Lipoproteins

30. Coronary heart disease

31. Endorphins

32. Neurotransmitters

33. Target heart rate zone

34. Heart rate reserve

35. Rating of perceived exertion

36. Synovial fluid

37. Dehydration

38. Heat cramps

39. Heat exhaustion

40. Heat stroke

41. Hypothermia

42. Frostbite

43. Wind chill

44. Heat index

45. R-I-C-E

STUDY QUESTIONS

Basic Physiology of Cardiorespiratory Endurance Exercise

The Cardiorespiratory System

State the main purpose of the cardiorespiratory system.

List three components of the cardiorespiratory system

- 1.
- 2.
- 3.

The Heart

Explain the heart's major role.

Describe the pulmonary circulation.

Describe the systemic circulation.

Name the body's largest vein.

Name the body's largest artery.

About how much blood does a 150 lb person have?

Blood Vessels

Give two ways to classify blood vessels.

- 1.
- 2.

Draw a schematic view of the heart and trace the direction of blood through it starting from the right ventricle.

Describe the function of capillaries.

Describe the leading cause of heart attacks.

The Respiratory System

Describe the main function of the respiratory system.

The Cardiorespiratory System at Rest and During Exercise

Give the average resting heart rate per minute during rest.

Give the average resting number of breaths per minute.

Give the average resting blood pressure.

Give a typical maximum heart rate during exercise.

Give a typical cardiac output during rest.

Give a typical percentage of blood distributed to muscle during rest.

Give a typical percentage of blood distributed to muscle during exercise.

Energy Production

The rate at which our body uses energy is called the _____.

Energy from Food

List three classes of energy-containing nutrients.

1.

2.

3.

Glucose is stored in the liver as _____.

Protein in the diet is used primarily to _____.

ATP: The Energy “Currency” of Cells

Give two facts about ATP.

- 1.
- 2.

Exercise and the Three Energy Systems

List the body's three energy systems

- 1.
- 2.
- 3.

The _____ and _____ of activity determine which energy system predominates.

The Immediate Energy System

List the fuel substrate primarily used by the immediate energy system.

Give a sample activity primarily supported by the immediate energy system.

The Nonoxidative Energy System

List the fuel substrate primarily used by the immediate energy system.

Give a sample activity primarily supported by the immediate energy system.

The nonoxidative system results in the production of what substance?

The Oxidative Energy System

Oxidative energy production takes place in the _____.

Give the predominate fuel for the oxidative energy system.

Name three factors that influence maximal oxygen uptake.

- 1.
- 2.
- 3.

True or False: Glucose serves as the predominate fuel for the oxidative energy system.

The Energy Systems in Combination

List two factors that determine which energy system predominate.

- 1.
- 2.

Physical Fitness and Energy Production

Give the energy system considered the key component of any health-related fitness program.

Benefits of Cardiorespiratory Endurance Exercise

List six major physiological adaptations and long-term benefits of regular endurance exercise.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Improved Cardiorespiratory Functioning

List four principal cardiorespiratory responses to exercise.

- 1.
- 2.
- 3.
- 4.

Improved Cellular Metabolism

Give to two improved cellular functions from endurance exercise.

- 1.
- 2.

Reduced Risk of Chronic Disease

List three chronic diseases positively affected by endurance exercise.

- 1.
- 2.
- 3.

Cardiovascular Disease

List the six major controllable risk factors for cardiovascular disease.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Briefly describe the effects of regular exercise on cardiovascular disease risk factors.

Cancer

Briefly describe the effects of regular exercise on colon cancer.

Type 2 Diabetes

Briefly explain how regular exercise helps prevent the development of type 2 diabetes.

Osteoporosis

Briefly explain how regular exercise decreases the risk of developing osteoporosis.

Deaths from All Causes

Describe the relationship between level of cardiorespiratory fitness and relative death risk.

Better Control of Body Fat

Give one explanation of how endurance exercises helps to control body fat.

Improved Immune Function

Briefly explain how endurance exercise improves immune function.

Improved Psychological and Emotional Well-Being

Give two examples of social and psychological or emotional benefits from endurance exercise.

- 1.
- 2.

Assessing Cardiorespiratory Fitness

Give the best quantitative measure of cardiorespiratory endurance capacity.

Assessment Tests

Briefly describe one test to measure cardiorespiratory endurance capacity.

Monitoring Your Heart Rate

Describe two sites to count pulse rate.

- 1.
- 2.

Heart rate is usually assessed in _____.

Interpreting Your Score

Give the relative margin of error expected when using typical cardiorespiratory fitness tests.

Developing a Cardiorespiratory Endurance Program

List five variables important in creating a successful endurance exercise program.

- 1.
- 2.
- 3.
- 4.
- 5.

Setting Goals

Give the percentage range of possible improvement in $\text{VO}_{2\text{max}}$ following a training program.

Give the direction of change (increase/decrease) in resting heart rate to endurance exercise training.

Applying the FITT Equation

List four variables described by the acronym FITT.

1. 3.
2. 4.

Frequency of Training

Give the recommended number of days per week to build cardiorespiratory endurance.

Intensity of Training

Name the two methods of monitoring exercise intensity.

- 1.
- 2.

Target Heart Rate Zone

The target heart rate zone ranges between ___% and ___%.

Use the standard method to calculate the target heart rate zone for a 21-year old male.

Use the heart rate reserve method (resting HR = 60 bpm) to calculate the target heart rate zone for a 21-year old male.

If you are 25 years old and your heart beats 25 times in 10 seconds, what is your approximate target heart rate range?

Rating of Perceived Exercise

Explain briefly how you would use the RPE scale to determine exercise intensity.

Time (Duration) of Training

Give the recommended duration of exercise to improve cardiorespiratory endurance.

Type of Activity

Give the optimum type of exercise to improve cardiorespiratory endurance.

Warming Up and Cooling Down

Give the major benefit of warming-up prior to exercise.

Give the amount of time that represents an adequate warm-up period.

Give the amount of time that represents an adequate cool-down period.

Building Cardiorespiratory Fitness

List three factors that determine the rate of progress to build fitness.

1. 3.
- 2.

List the three stages of an endurance-training program.

1. 3.
- 2.

Give one sign of too rapid progression in overload during the initial stage of an endurance-training program.

Maintaining Cardiorespiratory Fitness

How many days per week do you need to exercise to maintain cardiorespiratory fitness?

Give the main benefit of "cross-training."

Exercise Safety and Injury Prevention**Hot Weather and Heat Stress**

Describe how the body releases body heat produced during exercise.

List four heat stress induced problems.

- 1.
- 2.
- 3.
- 4.

Dehydration

True or False: Dehydration can occur in comfortable temperatures if fluid intake is inadequate.

Give three results of dehydration.

- 1.
- 2.
- 3.

As a rule of thumb, drink at least ___ cups of fluid ___ hours before exercise and then drink enough during exercise to _____ fluid loss in _____.

Heat Cramps

The primary cause for cramps is _____.

The best treatment for heat cramps is a combination of _____ and _____.

Heat Exhaustion

List three symptoms of heat exhaustion.

- 1.
- 2.
- 3.

Describe the normal treatment for heat exhaustion.

Heat Stroke

List three symptoms of heat stroke

- 1.
- 2.
- 3.

Preventing Heat Problems

List three strategies to help avoid the risk of heat illness. (See “Take Charge” – Exercise in Hot Weather)

- 1.
- 2.
- 3.

Cold Weather

Describe a primary symptom of hypothermia.

Frostbite within 30 minutes is possible in calm conditions when the temperature is colder than _____°F.

List two places on the body most susceptible to frostbite.

- 1.
- 2.

Poor Air Quality

Give the time of day when air quality is usually better.

Exercise Injuries

List four common exercise-induced injuries and their treatment (See Table 3.5).

Injury	Treatment
1.	
2.	
3.	
4.	

When to Call a Physician

List two types of injuries that should probably be seen by a physician.

- 1.
- 2.

Managing Minor Exercise Injuries

What does the acronym RICE stand for?

Preventing Injuries

List ten measures to prevent injuries.

- | | |
|----|-----|
| 1. | 6. |
| 2. | 7. |
| 3. | 8. |
| 4. | 9. |
| 5. | 10. |

PRACTICE QUIZ

Multiple Choice Questions

1. NOT one of the functions of the cardiorespiratory system?
 - a. to transport oxygen
 - b. to pick up waste products
 - c. to transport nutrients
 - d. to produce ATP
2. NOT a component of the cardiorespiratory system?
 - a. the brain
 - b. the heart
 - c. the blood vessels
 - d. the lungs
3. The portion of the circulation governed by the right side of the heart is the _____ circulation.
 - a. systemic
 - b. pulmonary
 - c. cerebral
 - d. extremity

4. Systemic circulation carries blood to all organs of the body EXCEPT.
 - a. the brain
 - b. the lungs
 - c. the heart
 - d. the liver.
5. Two upper heart chambers where blood collects before passing to the lower chambers.
 - a. ventricles
 - b. atria
 - c. septum
 - d. valves

True/False Questions

1. The aorta circulates oxygenated blood to the lungs.
2. The vena cava is the largest artery in the body.
3. Blood pressure is greater during systole than diastole.
4. Arteries carry oxygenated blood away from the heart.
5. Exercise reduces cardiac output.

LABORATORY ACTIVITIES

Complete Lab 3.1, and 3.2. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

1. Create two sample programs to develop cardiorespiratory endurance program for a beginning exerciser and a more fit individual. Apply the FITT principle to each.
2. What advice would you give to your parents or guardian regarding the importance of exercise?



CHAPTER FOUR MUSCULAR STRENGTH AND ENDURANCE

DEFINE KEY TERMS AND CONCEPTS

1. Muscular strength
2. Muscular endurance
3. Muscle fiber
4. Myofibrils
5. Hypertrophy
6. Atrophy
7. Hyperplasia
8. Slow-twitch fibers
9. Fast-twitch fibers

10. Power

11. Motor unit

12. Tendon

13. Ligament

14. Testosterone

15. Repetition maximum (RM)

16. Repetition

17. Isometric (static) contraction

18. Isotonic (dynamic) exercise

19. Concentric muscle contraction

20. Eccentric loading

21. Plyometrics

22. Speed loading

23. Isokinetic

24. Spotter

25. Set

26. Agonist

27. Antagonist

28. Anabolic steroids

29. Periodization

30. Circuit training

STUDY QUESTIONS

Give the major difference between muscular strength and muscular endurance.

Basic Muscle Physiology and The Effects of Strength Training

Muscles consist of _____ connected in bundles.

Muscle fibers are made up of smaller units called _____.

Strength training causes the size of individual muscle fibers to _____ by increasing the number of _____.

List two muscle fiber classifications.

- 1.
- 2.

Give two characteristics of slow-twitch muscle fibers.

- 1.
- 2.

Give two characteristics of fast-twitch muscle fibers.

- 1.
- 2.

Endurance activities like jogging tend to activate _____ fibers.

Strength and power activities like sprinting tend to activate _____ fibers.

Name the two parts of a motor unit.

- 1.
- 2.

Briefly describe how strength training increases muscle strength.

Benefits of Muscular Strength and Endurance

List six areas benefited from enhanced muscular strength and endurance.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Improved Performance of Physical Activities

Briefly explain why muscular strength and endurance are important for individuals who engage in recreational activities.

Injury Prevention

Good muscle strength in the abdomen, hips, lower back, and legs give support to which body part most susceptible to injury?

Improved Body Composition

Name the body composition component most likely to change in response to strength training.

The more muscle mass, the _____ the metabolic rate.

Enhanced Self-Image and Quality of Life

Briefly explain why strength training has such a positive effect on self-image.

Improved Muscle and Bone Health with Aging

List two strength-training induced improvements that positively affect bone health and aging.

- 1.
- 2.

Prevention and Management of Chronic Disease

List three cardiovascular risk variables positively affected by strength training.

- 1.
- 2.
- 3.

Assessing Muscular Strength and Endurance

Name the method generally used to measure muscular strength.

Describe the method generally used to assess muscular endurance.

Creating a Successful Strength Training Program**Static Versus Dynamic Strength Training Exercises**

Name the two general classifications of strength training exercises.

- 1.
- 2.

Static Exercise

Give another name for static exercise.

Briefly describe how to perform static exercise.

Give two condition(s) for which static exercises are recommended?

- 1.
- 2.

Dynamic Exercise

Give another name for dynamic exercise.

Name two kinds of dynamic muscle contractions

- 1.
- 2.

Name the two most common dynamic exercise techniques.

- 1.
- 2.

The amount of weight a person can lift is limited by _____.

List the four kinds of isotonic techniques used mainly by athletes for training and rehabilitation.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Comparing the Different Types of Exercise

List two positive aspects of static and dynamic exercise.

Static

Dynamic

- | | |
|----|----|
| 1. | 1. |
| 2. | 2. |

Weight Machines versus Free Weights

List three advantages and two disadvantages of using exercise machines.

<u>Advantage</u>	<u>Disadvantage</u>
1.	1.
2.	2.
3.	

List three advantages and two disadvantages of using free weights.

<u>Advantage</u>	<u>Disadvantage</u>
1.	1.
2.	2.
3.	

Other Training Methods and Types of Equipment**Resistance Bands**

List two advantages of using resistance bands.

- 1.
- 2.

Exercise (Stability) Balls

Name the “core” muscle usually activated when using exercise balls.

Pilates

Briefly describe pilates exercises.

No-Equipment Calisthenics

What provides the resistance when performing no-equipment calisthenics?

Applying the FITT Principle: Selecting Exercises and Putting Together a Program

List four components of the FITT principle.

- 1.
- 2.
- 3.
- 4.

Frequency of Exercise

Give the recommended frequency (days per week) for weight training.

Give the recommended number of days rest between weight training sessions.

Intensity

Give the recommended percentage 1-RM to build muscular strength.

Give the recommended percentage 1-RM to build muscular endurance.

Give the recommended intensity to develop both strength and endurance.

Time of Exercise: Repetitions and Sets

In general, a heavy weight and a low number of repetitions builds _____.

In general, a low number of repetitions build _____.

To build both strength and endurance, do about _____ to _____ repetitions of each exercise.

Give three signs of overtraining.

- 1.
- 2.
- 3.

Type or Mode of Exercise

List ten major body parts required to exercise for overall fitness (See Figure 4.4).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

7.

9.

8.

10.

The Warm-up and Cool-Down

Give the recommended amount of time required for warm-up and cool-down.

Getting Started and Making Progress

About how much percentage strength improvement can you achieve during the first 6 to 10 weeks of strength training?

More Advanced Strength Training Programs

Describe periodization.

Weight Training Safety

List six general guidelines to insure "safe" weight training (See "Take Charge: Safe Weight Training").

1.

2.

3.

4.

5.

6.

List three guidelines to insure safe weight training with free weights (See "Take Charge: Safe Weight Training").

1.

2.

3.

List three guidelines to insure safe spotting (See Take Charge: Safe Weight Training).

- 1.
- 2.
- 3.

List three guidelines to insure safe weight training with weight machines (See Take Charge: Safe Weight Training).

- 1.
- 2.
- 3.

A Caution About Supplements and Drugs

List six substances commonly marketed to enhance muscular development (See Table 4.2).

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Supplements Taken to Increase Muscle Growth

List five negative side effects from taking anabolic steroids.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Give one negative side effect of taking HCG.

Give one negative side effect of taking growth hormone supplements.

Give one negative side effect of taking DHEA supplements.

Give one negative side effect of taking IGF-1 supplements.

Give one negative side effect of taking beta-agonists supplements.

Give one negative side effect of taking growth hormone supplements.

Give one negative side effect of taking protein, amino acid, and polypeptide supplements.

Supplements Taken to Speed Recovery From Training

List one substance purported to enhance the speed of recovery from exercise.

Substances Taken to Increase Training Intensity and Overcome Fatigue

List one substance purported to increase training intensity and overcome fatigue.

Substances Taken to Increase Endurance

List one substance purported to increase endurance.

Substances Taken to Aid Weight Control

List two substances purported to aid weight control.

- 1.
- 2.

Supplement and Drug Use by Active People

Are there any substances known to change a weak, untrained person into a strong, fit person?

Weight Training Exercises

List one exercise using free weights or a specific weight-training machine to develop the following body parts.

Body Part

Exercise

Legs:

Arms:

Shoulder and Chest:

Torso:

PRACTICE QUIZ

Multiple Choice Questions

1. Muscular strength is best defined as:
 - a. the maximum amount of force a muscle can produce in a single maximal effort
 - b. the maximum amount of force a muscle can produce in 10 repetitions
 - c. the ability to exert a submaximal force repeatedly over time
 - d. the ability to exert force rapidly
2. Muscle fibers are:
 - a. motor nerves attached to muscle cells
 - b. protein structures within muscle cells
 - c. enzymes that facilitate metabolism within muscle cells
 - d. individual muscle cells
3. A motor unit contains:
 - a. tendon and muscle fiber
 - b. fast- and slow-twitch muscle fibers
 - c. motor nerve connected to muscle fibers
 - d. motor nerve connected to a tendon
4. Metabolic rate increases when:
 - a. fat mass increases
 - b. fat mass decreases
 - c. muscle mass decreases
 - d. muscle mass increases
5. Men have a higher amount of this essential hormone that allows them to build more muscle mass than women:
 - a. estrogen
 - b. testosterone
 - c. adrenaline
 - d. insulin

True/False Questions

1. Development of large muscle fibers is referred to as atrophy.
2. A person recruits more motor units when picking up a light weight than lifting a heavier weight.
3. Women have a larger proportion of muscle tissue in the upper body compared to men.
4. Perform a maximal isometric contraction for at least 30 seconds to develop isometric strength.
5. A program that includes 3 to 5 sets of 5 repetitions using a heavy load primarily builds muscular endurance.

LABORATORY ACTIVITIES

1. Complete Lab 4.1, and 4.2. Explain your findings and briefly discuss their importance relative to your overall health and wellness.
2. List the name, location, and describe the types of resistance training equipment available for students on your campus.

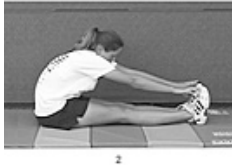
THOUGHT QUESTIONS

Design a weight-training program for yourself without going to a gym. What kind of equipment and/or facilities would you use? Be specific.



CHAPTER FIVE

FLEXIBILITY AND LOW-BACK HEALTH



DEFINE KEY TERMS AND CONCEPTS

1. Flexibility
2. Dynamic flexibility
3. Static flexibility
4. Range of motion
5. Joint capsules
6. Soft tissues
7. Collagen
8. Elastin
9. Titin

10. Stretch receptors
11. Proprioceptive neuromuscular facilitation (PNF)
12. Delayed-onset muscle soreness
13. Static stretching
14. Ballistic stretching
15. Passive stretching active stretching
16. Vertebrae
17. Intervertebral disk
18. Nerve root

STUDY QUESTIONS

True or False: Good flexibility in one joint generally means good flexibility in all joints.

List the two flexibility types.

- 1.
- 2.

List two factors that determine static flexibility.

- 1.
- 2.

List two factors that determine dynamic flexibility.

- 1.
- 2.

What Determines Flexibility?

List three factors that affect a joint's flexibility.

- 1.
- 2.
- 3.

Joint Structure

List two types of joints.

- 1.
- 2.

Muscle Elasticity and Length

List four types of soft tissues associated with a joint.

- 1.
- 2.
- 3.
- 4.

List two types of connective tissue.

- 1.
- 2.

Research has shown that flexibility improves best by stretching when muscles are _____.

Nervous System Activity

True or False: A muscle that contracts at the same time it is stretched cannot be easily injured.

True or False: Slow, gradual stretches are always safest.

Name the contraction-stretch technique for developing flexibility.

Benefits of Flexibility and Stretching Exercises

List three benefits of improved flexibility.

- 1.
- 2.
- 3.

Joint Health

List one result of poor flexibility.

List one joint-related benefit of improved flexibility.

Prevention of Low-Back Pain and Injuries

True or False: Poor flexibility increases injury risk.

Additional Potential Benefits

List four additional benefits of improved flexibility.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Flexibility and Lifetime Wellness

Briefly explain why good flexibility is important for lifetime wellness.

Assessing Flexibility

True or False: The sit-and-reach test is a test of general flexibility.

Creating a Successful Program to Develop Flexibility**Applying The FITT Principle****Frequency**

Give the recommendation for the number of days per week for doing flexibility exercises.

Intensity and Time (Duration)

Briefly describe the intensity and duration for a typical flexibility regimen.

Types of Stretching Techniques

List three common stretching techniques.

- 1.
- 2.
- 3.

Describe the static stretching technique.

Describe the ballistic stretching technique.

Describe functional stretching.

Describe the proprioceptive neuromuscular facilitation stretching technique.

Describe passive stretching.

Describe active stretching.

Putting Exercises Together in a Complete Program

List five of the most important guidelines for safe stretching.

- 1.
- 2.
- 3.
- 4.
- 5.

Making Progress

How long does it usually take to notice changes (improvements) in flexibility?

Exercises to Improve Flexibility

List one flexibility exercise for the following body parts.

Area to Stretch	Flexibility Exercise
Neck	
Shoulders	
Upper back	
Trunk	
Hamstrings	

Preventing and Managing Low-Back Pain

State two long-term reasons for recurring back pain.

- 1.
- 2.

Function and Structure of the Spine

List four functions of the spinal column.

- 1.
- 2.
- 3.
- 4.

Name the five parts of the spinal column, and give the number of vertebrae in each part.

Name	Number of Vertebrae
1.	
2.	
3.	
4.	
5.	

Name the spine's four curves.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Describe the function of intervertebral disks.

Core Muscle Fitness

Name the seven body areas that include the “core” muscles.

1. 5.
2. 6.
3. 7.
- 4.

Give the major function of the core muscles.

Name the best types of exercises to strengthen the core muscles.

Causes of Back Pain

Name the anatomical region along the spine that represents the most common site of pain.

List four risk factors associated with low-back pain.

1. 3.
2. 4.

List four underlying causes of back pain.

1. 3.
2. 4.

Preventing Low-Back Pain

List five lifestyle recommendations to prevent back pain.

1. 4.
2. 5.
- 3.

Describe two common changes you can make in posture to prevent low-back pain.

- 1.
- 2.

Managing Acute back Pain

List three common symptoms of acute back pain.

- 1.
- 2.
- 3.

List five common potential treatments for acute back pain.

- 1.
- 2.
- 3.
- 4.
- 5.

Managing Chronic Back Pain

How long must low-back pain persist to consider it a chronic condition?

List three common potential treatments for acute back pain.

- 1.
- 2.
- 3.

Exercises for the Prevention and Management of Low-Back Pain

List five general guidelines for back exercises.

- 1.
- 2.
- 3.
- 4.
- 5.

List five specific exercises for the back.

- 1.
- 2.
- 3.
- 4.
- 5.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Dynamic flexibility would affect your ability to do all of the following EXCEPT:
 - a. swing a golf club
 - b. perform a split
 - c. pitch a softball
 - d. swim the crawl stroke
2. Good flexibility conveys all of the following benefits EXCEPT:
 - a. improved sports performance
 - b. injury prevention
 - c. prevention of muscle soreness
 - d. improved body composition
3. Contracting a muscle prior to stretching is best described as:
 - a. active stretching
 - b. passive stretching
 - c. ballistic stretching
 - d. proprioceptive neuromuscular facilitation
4. The most common site of back pain is the _____ area.
 - a. cervical
 - b. lumbar
 - c. thoracic
 - d. coccyx
5. Which of the following statements about exercise for the prevention and management of low-back pain is FALSE?
 - a. Exercises should be performed at least 3 days per week
 - b. Exercises should be done early in the morning
 - c. The exercise program should emphasize muscular endurance over muscular strength
 - d. The exercise program may need to be continued for 3 months before results are seen

TRUE/FALSE QUESTIONS

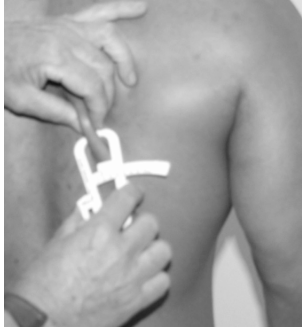
1. Flexibility is not a reversible fitness component.
2. Bad posture can cause kyphosis, a rounding of the upper back.
3. In active stretching, an outside force or resistance assists your muscles and joints in moving through a range of motion.
4. Nerve roots in the spine are the key components of intervertebral disks.
5. Foot numbness is a possible symptom of damaged intervertebral disks.

LABORATORY ACTIVITIES

Complete Lab 5.1, 5.2, and 5.3. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

Can you find any research evidence, pro or con, that indicates whether individuals with increased flexibility have increased or decreased incidence of joint and/or muscle injury?



CHAPTER SIX

BODY COMPOSITION

DEFINE KEY TERMS AND CONCEPTS

1. Essential fat
2. Storage fat
3. Adipose tissue
4. Fat-free mass
5. Chronic disease
6. Excess body fat
7. Underweight
8. Underwater weighing
9. Percent body fat

10. Overweight

11. Obesity

12. Bod Pod

13. Bioelectrical impedance

14. Cellulite

15. Amenorrhea

16. Female athlete triad

17. Body mass index

18. Skinfold caliper

STUDY QUESTIONS

What is Body Composition, And Why is it Important

Name the body's two major compositional components.

- 1.
- 2.

Name the two kinds of body fat.

- 1.
- 2.

List three factors that determine the amount of storage fat in the body.

- 1.
- 2.
- 3.

Give the major reason why people accumulate excess storage fat.

Overweight and Obesity Defined

Briefly explain the difference(s) between being overweight versus obese.

Prevalence of Overweight and Obesity Among Americans

About how many Americans are now considered obese?

Give three possible reasons for the increased incidence of obesity in the United States.

- 1.
- 2.
- 3.

Excess Body Fat and Wellness

Excess body fat impacts overall wellness through its effects on three variables.

- 1.
- 2.
- 3.

Risk of Chronic Disease and Premature Death

List four statistics relating obesity to disease and death.

- 1.
- 2.
- 3.
- 4.

The obese are more than _____ times as likely as the nonobese to develop _____.

People who gain weight in the abdominal area have a higher risk of developing these four diseases:

- 1.
- 2.
- 3.
- 4.

Briefly describe diabetes mellitus. (See "In Focus: Diabetes.")

List three kinds of diabetes.

- 1.
- 2.
- 3.

List four generalized signs of diabetes.

- 1.
- 2.
- 3.
- 4.

Performance of Physical Activities

Does increased body fat increase or decrease the ability to perform physical activities?

Emotional Wellness and Self-Image

List two psychological problems associated with overfatness.

- 1.
- 2.

Wellness for Life

List three life-factors that are improved by controlling excess body weight.

- 1.
- 2.
- 3.

Problems Associated with Very Low Levels of Body Fat

Give the lower limits for too little body fat levels in males and females.

Males:

Females:

For women, an extremely low percentage body fat associates with _____.

List the three parts of the female athlete triad. (See “Dimensions of Diversity: The Female Athlete Triad”).

- 1.
- 2.
- 3.

Assessing Body Mass Index, Body Composition, and Body Fat Distribution**Calculating Body Mass Index**

Give the rationale for using the BMI.

Give the formula for calculating the BMI.

Calculate your own BMI (show your work).

Give the classification for a BMI of 29.7 (See Table 6.1).

Give the classification for a BMI of 32.0 (See Table 6.1).

Give the disease risk for a male with a waist girth of 42 inches and BMI of 31.

Estimating Percent Body Fat

List three techniques to measure percent body fat.

- 1.
- 2.
- 3.

Give the recommended percentage body fat for a 40-year old female.

Give the recommended percentage body fat for a 38-year old male.

Underwater Weighing

Muscle has a _____ density and fat a _____ density than water.

Skinfold Measurements

List two ways to use skinfold measurements.

- 1.
- 2.

The Bod Pod

What does the Bod Pod measure?

Bioelectrical Impedance Analysis (BIA)

What does BIA measure?

List two other techniques to assess percentage of body fat.

- 1.
- 2.

Advanced Techniques: DEXA and Tobec

What do DEXA and Tobec measure?

Assessing Body Fat Distribution

Give the waist girth cut-off values for males and females that associate with health risk.

Males:

Females:

Setting Body Composition Goals

Calculate the target weight for a person who weighs 155 lbs and is 5' 1" tall (Refer to Lab 6.2).

Calculate your target weight based on your current body weight and height.

Making Changes in Body Composition

Give the key variable to long-term success in weight loss.

True or False: When you lose weight you will almost always lose some muscle.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. The key to healthy body composition is to:
 - a. emphasize short-term weight loss
 - b. focus on lifestyle changes
 - c. emphasize diet only
 - d. set unrealistic goals
2. In the past decade, the daily caloric intake has risen by about:
 - a. 50 to 100 calories
 - b. 100 to 300 calories
 - c. 500 calories
 - d. 1000 calories
3. People who tend to gain weight in the abdominal area are at greater risk for all of the following EXCEPT:
 - a. coronary heart disease
 - b. muscle wasting
 - c. diabetes
 - d. stroke
4. A condition called the "female athlete triad" consists of all of the following EXCEPT:
 - a. abnormal eating patterns
 - b. premature osteoporosis
 - c. amenorrhea
 - d. insulin sensitivity

5. A waist to hip ratio above 1.0 is:
- associated with a significantly increased disease risk
 - acceptable for both men and women
 - acceptable for men only
 - acceptable for women only

TRUE/FALSE QUESTIONS

- Essential body fat is located just below the skin.
- Two people of the same body weight may have different values of percent body fat.
- Obesity causes about 200,000 deaths per year among Americans.
- Heredity influences one's ability to change body composition through lifestyle changes.
- Underwater weighing serves as the standard for other indirect measures of body fat.

LABORATORY ACTIVITIES

Complete Lab 6.1 (if you have access to skinfold calipers) and 6.2. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

What do you believe will be your greatest challenge in trying to maintain your optimal body weight five years after you graduate from college? Ten years after graduation?



CHAPTER SEVEN

PUTTING TOGETHER A COMPLETE FITNESS PROGRAM

DEFINE KEY TERMS AND CONCEPTS

1. Calorie cost
2. Interval training
3. Cross-training
4. Arthritis
5. Asthma

STUDY QUESTIONS

Developing a Personal fitness plan

List seven variables to consider when developing a personal fitness plan.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Set Goals

List three examples of fitness goals.

- 1.
- 2.
- 3.

List three variables that can influence the amount of improvement and ultimate level of fitness you can expect through physical training.

- 1.
- 2.
- 3.

Select Activities

List four health-related component areas that need to be included in a total fitness program.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

List one activity that promotes fitness in the following health-related areas.

Cardiorespiratory Endurance	Muscular Strength	Muscular Endurance	Flexibility	Body Composition
----------------------------------------	------------------------------	-------------------------------	--------------------	-----------------------------

List seven factors to consider when choosing activities as part of your total fitness program.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | |

Set a Target Frequency, Intensity, and Time (Duration) for Each Activity**Cardiorespiratory Endurance Exercise**

Give the recommended total kCal per workout for cardiorespiratory endurance exercise.

Calculate the calorie cost of surfing for 20 minutes duration (Refer to Table 7.1).

Muscular Strength and Endurance Training

Give the recommended frequency for developing strength.

Flexibility Training

Give the recommended frequency for developing flexibility.

Set Up a System of Mini-Goals and Rewards

List one example of a “reward” for completing a goal.

Include Lifestyle Physical Activity in Your Program

List one opportunity in your daily routine to include lifestyle activities.

Develop Tools for Monitoring Your Progress

List two variables that would be typically listed on a physical activity program log.

- 1.
- 2.

Make a Commitment

Give one way to illustrate that you have made a commitment in your wellness program.

Putting Your Plan Into Action

List five strategy guidelines to help succeed with an exercise program.

- 1.
- 2.
- 3.
- 4.
- 5.

Maintaining Your Program: Fit For Life

List five strategies to help maintain an active lifestyle.

- 1.
- 2.
- 3.
- 4.
- 5.

Exercise Guidelines for People with Special Health Concerns**Arthritis**

List three guidelines and cautions for individuals with arthritis.

- 1.
- 2.
- 3.

Asthma

List three guidelines and cautions for individuals with asthma.

- 1.
- 2.
- 3.

Diabetes

List three guidelines and cautions for individuals with diabetes.

- 1.
- 2.
- 3.

Heart Disease and Hypertension

List three guidelines and cautions for individuals with heart disease and hypertension.

- 1.
- 2.
- 3.

Obesity

List three guidelines and cautions for individuals with obesity.

- 1.
- 2.
- 3.

Osteoporosis

List three guidelines and cautions for individuals with osteoporosis.

- 1.
- 2.
- 3.

Exercise Guidelines for Life Stages**Children and Adolescents**

List three guidelines to consider when starting a fitness program for children and adolescents.

- 1.
- 2.
- 3.

Pregnant Women

List three guidelines to consider when starting a fitness program for pregnant women.

- 1.
- 2.
- 3.

Older Adults

List five guidelines to consider when starting a fitness program for older adults.

- 1.
- 2.
- 3.
- 4.
- 5.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. The first step in developing a personal fitness plan:
 - a. select activities
 - b. set target intensity of exercise
 - c. set target time (duration) of exercise
 - d. set goals
2. Healthy body composition is obtained with the help of all of the following EXCEPT:
 - a. stretching
 - b. sensible diet
 - c. cardiorespiratory exercise
 - d. strength training
3. Most popular fitness activity among Americans:
 - a. free weights
 - b. running
 - c. swimming
 - d. fitness walking
4. Final step in physical fitness program planning:
 - a. making a commitment
 - b. monitoring your pre-program activity habits
 - c. establishing mini-goals
 - d. including physical activities

5. Exercise may help to improve insulin sensitivity, an important effect for people with:
- asthma
 - diabetes
 - osteoporosis
 - hypertension

TRUE/FALSE QUESTIONS

- Increasing VO_{2max} by 10% is an example of a general fitness goal.
- An endurance exercise program that includes swimming and jogging two days weekly is an example of cross training.
- Current fitness level does not affect the selection of appropriate exercise activities.
- Frequency for strength training should be 5 to 6 days a weekly.
- Drowsiness impairs driving ability as much as alcohol use.

LABORATORY ACTIVITIES

Complete Lab 7.1 and 7.2. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

What do you believe will be your greatest challenge in trying to maintain your optimal health-related fitness five years after you graduate from college?



CHAPTER EIGHT

NUTRITION

DEFINE KEY TERMS AND CONCEPTS

1. Nutrition
2. Essential nutrients
3. Digestion
4. Macronutrients micronutrients
5. Kilocalorie
6. Protein
7. Amino acids
8. Legumes
9. Saturated fat

10. Monounsaturated fat

11. Hydrogenation

12. Trans fatty acid

13. Cholesterol

14. Low-density lipoprotein

15. High-density lipoprotein

16. Omega-3 fatty acids

17. Carbohydrate

18. Glucose

19. Glycogen

20. Whole grain

21. Glycemic index

22. Dietary fiber

23. Functional fiber

24. Total fiber

25. Soluble (viscous) fiber

26. Insoluble fiber

27. Diverticulitis

28. Vitamins

29. Antioxidant

30. Minerals

31. Anemia

32. Osteoporosis

33. Free radical

34. Phytochemical

35. Cruciferous vegetables

36. Dietary reference intakes

37. Food guide pyramid

38. Recommended dietary allowances

39. Daily values

40. Vegan

41. Lacto-vegetarian

42. Lacto-ovo-vegetarian

43. Partial vegetarian

44. Semivegetarian

45. Pescovegetarian

46. Pathogen

47. Food irradiation

48. Organic

STUDY QUESTIONS

List two important variables to consider when creating a diet plan to support maximum fitness and protect against disease.

1.

2.

Nutritional Requirements: Components of a Healthy Diet

About how many essential nutrients are needed by the body?

List the six classes of nutrients (See Table 8.1).

1.

4.

2.

5.

3.

6.

List one major food source for each of the six major nutrients (See Table 8.1).

Nutrient

Major Food Source

1.

2.

3.

4.

5.

6.

Name the three macronutrients.

- 1.
- 2.
- 3.

Name the two micronutrients

- 1.
- 2.

The energy in foods is expressed as _____.

Define 1 kCal.

Give the kCal per gram value for fat, protein, and carbohydrate.

Fat:

Protein:

Carbohydrate:

Give the kCal value of one gram of alcohol.

Name five anatomic parts of the digestive system.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Proteins—The Basis of Body Structure

Name four body “structures” primarily composed of protein.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Amino Acids

The building blocks of proteins are called _____.

Briefly describe the differences between complete and incomplete proteins.

Complete and Incomplete Proteins

Give two examples of complete proteins.

1.

2.

Give two examples of incomplete proteins.

1.

2.

True or False: Vegetarians need to complement their protein intake during each meal to derive the benefits of a complete protein.

Recommended Protein Intake

Give the daily protein requirement for most adults.

Give one negative side effect of consuming too much protein.

Fats—Essential in Small Amounts

Give another name for fats.

Name two essential fats.

1.

2.

Types and Sources of Fats

Name the body's major form of fat.

Name the two components that comprise a triglyceride molecule.

1.

2.

State the major difference between a saturated and unsaturated fatty acid.

State the major difference between a monounsaturated and polyunsaturated fatty acid.

Name two polyunsaturated fatty acids.

- 1.
- 2.

Give the leading source of saturated fat in the American diet.

Briefly explain the process of hydrogenation.

Give two major sources of trans fat in the American diet.

- 1.
- 2.

Name two plant oils high in saturated fat.

- 1.
- 2.

Fats and Health

Name a dietary fat that raises the body's LDL level.

Name a dietary fat that raises the body's level HDL.

Name two dietary fats to reduce in your diet to improve heart-health.

- 1.
- 2.

Name three dietary fats that improve cholesterol levels and may help to protect against some cancers.

- 1.
- 2.
- 3.

Give one rich dietary source of omega-3 fatty acids.

Corn and soybean oil represent what type of fat?

Recommended Fat Intake

Give the recommended dietary intake for males and females for the essential fats linoleic and alpha-linolenic acid.

	Males	Females
Linoleic Acid		
Alpha-linolenic Acid		

Give the recommended intake of dietary fat as a percent of total kCal.

Carbohydrates—An Ideal Source of Energy

Simple and Complex Carbohydrates

Give two examples of simple sugars.

- 1.
- 2.

Name three food sources high in dietary fiber.

- 1.
- 2.
- 3.

The storage form of glucose is _____.

Refined Carbohydrate Versus Whole Grains

Name the starchy part of a grain.

The end-product of refined whole-wheat flour is _____.

Are refined carbohydrates higher or lower in fiber?

Are refined carbohydrates higher or lower in vitamins?

Name six whole grain products.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Describe the major difference between a high and a low glycemic index food.

Name two high and two low glycemic index foods.

High Glycemic Index Foods	Low Glycemic Index Foods
1.	1.
2.	2.

Glycemic Index

A food that has a strong effect on blood glucose levels is said to have a high _____.

Do high glycemic index foods directly cause excess weight gain?

Name three high glycemic foods.

- 1.
- 2.
- 3.

Recommended Carbohydrate Intake

Give the daily range of carbohydrate recommended for most individuals.

Fiber- A Closer Look

Give the major function of dietary fiber.

Types of Dietary Fiber

Name the two types of dietary fiber.

- 1.
- 2.

Give the major function of soluble (viscous) fiber.

Give the major function of insoluble fiber.

Give the major difference between a functional fiber and dietary fiber.

Name two preventable medical conditions with increased dietary fiber intake.

- 1.
- 2.

Sources of Dietary Fiber

Name three good sources of dietary fiber.

- 1.
- 2.
- 3.

Recommended Intake of Dietary Fiber

List four strategies to increase the amount of fiber in your daily diet.

- 1.
- 2.
- 3.
- 4.

Vitamins – Organic Micronutrients

How many vitamins do humans need?

Name the two types of vitamins.

- 1.
- 2.

How many kCal are in vitamins?

Functions of Vitamins

List three functions of vitamins.

- 1.
- 2.
- 3.

Sources of Vitamins

Name three sources of vitamins.

- 1.
- 2.
- 3.

Vitamin Deficiencies and Excesses

Name the conditions or sign of prolonged deficiency of the following vitamins (See Table 8.2).

Vitamin A:

Vitamin D:

Vitamin E:

Vitamin K:

Biotin:

Folate:

Niacin:

Pantothenic acid:

Riboflavin:

Thiamin:

Vit B-6:

Vit B-12:

Vit C:

List three vitamins when taken in excess that produce toxic effects.

- 1.
- 2.
- 3.

Minerals- Inorganic Micronutrients

How many essential minerals are there?

Explain the major difference between major and trace minerals.

Give a dietary source for the following minerals.

Calcium:

Fluoride:

Iron:

Potassium:

Sodium:

Zinc:

Water - A Vital Component

The body is composed of how much water?

Give two major functions of body water.

- 1.
- 2.

Give the recommended total water intake for a college-age male and female

Male:

Female:

Other Substances in Food**Antioxidants**

Name three conditions that produce free radicals.

- 1.
- 2.
- 3.

Describe a free radical.

Name three antioxidant substances.

- 1.
- 2.
- 3.

Phytochemicals

Name a major source of phytochemicals in most peoples diet.

Nutritional Guidelines: Planning Your Diet**Dietary Reference Intakes (DRIs)**

Describe the purpose of the dietary reference intakes (RDIs).

List the two ways to express the DRIs.

- 1.
- 2.

Describe the tolerable upper intake level (UL).

Should You Take Supplements?

Describe the group and give the recommendation for supplements proposed by the Food and Nutrition Board of the United States government.

	Group	Recommendation
1.		
2.		

Daily Values

The Daily Values represents appropriate intake levels for a _____ kCal diet.

Dietary Guidelines for Americans

List nine of the key recommendations of the 2005 Dietary Guidelines for Americans.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

Adequate Nutrients Within Calorie Needs

Name the two eating plans that successfully translate the nutrient recommendations of the Dietary Guidelines for Americans into food choices.

- 1.
- 2.

List two major changes most Americans would need to make in their diet to meet the Guidelines for Americans.

- 1.
- 2.

Describe “nutrient dense foods.”

Weight Management

Name two lifestyle choices people can undertake to healthfully reduce excess body weight.

- 1.
- 2.

Physical Activity

Name five factors that regular physical activity improves.

- 1.
- 2.
- 3.
- 4.
- 5.

How much physical activity is recommended to reduce the risk of chronic disease?

How much physical activity is recommended to manage body weight?

Food Groups to Encourage**Fruits and Vegetables**

How many servings of fruits and vegetables are recommended for individuals on a 2000 kCal diet.

Name the three types of recommended vegetables.

- 1.
- 2.
- 3.

Whole Grains

Give the recommended amount of whole grains for a person on a 2000 kCal diet.

Low-Fat and Fat-Free Milk and Milk Products

Give the recommended amount of milk and other dairy produces for a person on a 2000 kCal diet.

Fats

List four guidelines for fat intake for most Americans.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

What is the preferred source of fats in the diet?

Where is cholesterol found?

Carbohydrates

List three food sources than provide the recommended amount of carbohydrate.

- 1.
- 2.
- 3.

List three foods in your diet that will reduce sugar consumption.

- 1.
- 2.
- 3.

One can of regular cola (soda) contains how many grams of sugar (See Figure 8.4)?

Sodium and Potassium

List the two primary ingredients in table salt.

- 1.
- 2.

About how much salt does the average American need?

List three foods choices that would aid in reducing salt intake.

- 1.
- 2.
- 3.

Alcoholic Beverages

List two groups of individuals who probably should not drink alcoholic beverages.

- 1.
- 2.

Food Safety

Which foods are particularly susceptible to contain foodborne substances?

USDA's MyPyramid

List the six food categories of the MyPyramid.

- 1.
- 2.

- 3.
- 4.
- 5.
- 6.

Key Messages of The MyPyramid

List the six key messages of the MyPyramid program.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

According to the MyPyramid, if you consume 2200 kCal per day, how many servings of dark green vegetables should you consume (See Figure 8.6)?

If you are a moderately active female age 22, how many kCals should you consume per day (See Table 8.4)?

Give the approximate size of 3 ounces of meat (See: Take Charge: Judging Portion Sizes)?

Grains

List three grains equivalent of a 1-oz serving.

- 1.
- 2.
- 3.

List two grain foods typically made with little fat or sugar.

- 1.
- 2.

Vegetables

List three foods that count as $\frac{1}{2}$ cup or the equivalent of 1 serving of vegetables.

- 1.
- 2.
- 3.

List the five subgroups of the vegetable group that the MyPyramid recommends you choose.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Fruits

List four foods that each count as $\frac{1}{2}$ cup or the 1 equivalent serving of fruit.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

True or False: Fruit juices typically contain more nutrients and less added sugar than fruit drinks.

Milk

List four foods that count as the equivalent of 1 cup of a milk serving.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Meat and Beans

List five foods that each count at 1 ounce equivalent of meat and beans.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Give two examples of a plant protein.

- 1.
- 2.

Discretionary Calories, Solid Fats, and Added Sugars

Briefly describe nutrient-dense foods.

Give two examples of discretionary calories according to the MyPyramid program.

- 1.
- 2.

List the three top sources of calories in the American Diet (See Table 8.5).

- 1.
- 2.
- 3.

How much discretionary sugar, in grams and teaspoons, is recommended on a 2000 kCal diet?

The Vegetarian Alternative

Vegetarian diets tend to be low in what three substances?

- 1.
- 2.
- 3.

Types of Vegetarian Diets

List three types of vegetarians.

- 1.
- 2.
- 3.

A Food Plan for Vegetarians

List five foods that vegetarians typically substitute for the meat and bean group.

- 1.
- 2.
- 3.
- 4.
- 5.

Name the two B-vitamins that are generally lacking in most vegetarians diets.

- 1.
- 2.

Give a good source of Vitamin B-12 for vegetarians.

Give a good source of calcium for vegetarians.

Give a good source of zinc for vegetarians.

Dietary Challenges for Special Population Groups

List special dietary challenges that may be encountered for the following groups.

Women:

Men:

College Students:

Older Adults:

Athletes:

Energy Intake:

Carbohydrate:

Protein:

Fluids:

People With Special Health Concerns

List two types of individuals who typically have special health concern that affect their dietary needs.

1.

2.

Nutritional Planning: Making Informed Choices About Food

Reading Food Labels

List six components that must be listed on all food labels.

1.

4.

2.

5.

3.

6.

List three non-processed foods that do not require food labels.

1.

2.

3.

Reading Dietary Supplement Labels

Are supplements legally considered drugs?

List ten components usually found on most dietary supplements (See Critical Consumer: Using Dietary Supplement Labels).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Food Additives

Give four reasons why substances may be added to foods.

- 1.
- 2.
- 3.
- 4.

List four food additives.

- 1.
- 2.
- 3.
- 4.

Foodborne Illness

Describe the greatest risk for food contamination.

Causes of Foodborne Illnesses

Give the major cause for foodborne illness.

Name four pathogens that cause foodborne illnesses.

- 1.
- 2.
- 3.
- 4.

Preventing and Treating Foodborne Illness

List ten ways to protect yourself from foodborne illness.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Irradiated Foods

Briefly describe the process of food irradiation.

Organic Foods

State the differences between the label "100% organic," "organic," and "made with organic ingredients."

Guidelines for Fish Consumption

List three fish consumption guidelines women should follow who are or who may become pregnant.

- 1.
- 2.
- 3.

A Personal Plan: Applying Nutritional Principles

List six factors to individualize a diet plan.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Assessing and Changing Your Diet

Give one example of a change in your diet that you may want to make to improve your current diet.

Staying Committed to a Healthy Diet

List three strategies to use when eating at restaurants to help stay on your food plan.

- 1.
- 2.
- 3.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Approximate number of nutrients identified as essential to human health:
 - a. 3
 - b. 8
 - c. 28
 - d. 45
2. All of the following nutrients supply the body with energy EXCEPT:
 - a. fats
 - b. vitamins
 - c. carbohydrates
 - d. proteins
3. Foods from animal sources usually provide _____ proteins:
 - a. complete
 - b. primary
 - c. secondary
 - d. incomplete
4. Primary function of fats in your diet:
 - a. serve as an important component of muscle
 - b. provide texture and flavor to foods
 - c. protect against oxidation
 - d. promote chemical reactions within cells

5. The amount of essential fat in the form of vegetable oil needed daily by humans is approximately this number of teaspoons
- a. 1 to 2
 - b. 3 to 4
 - c. 10 to 12
 - d. 15 to 18

TRUE/FALSE QUESTIONS

1. The body produces essential nutrients.
2. Saturated fatty acids do not have double bonds between carbon atoms.
3. Carbohydrates consumed in excess of dietary needs are stored in the body as fat.
4. In terms of Food Guide Pyramid servings, 2 tablespoons of peanut butter is equivalent to 1 ounce of lean meat.
5. The Dietary Guidelines for Americans recommend a limit of 200 milligrams of cholesterol daily.

LABORATORY ACTIVITIES

Complete Lab 8.1, 8.2 and 8.3. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

What do you believe is your greatest challenge in trying to maintain good eating habits?



CHAPTER NINE

WEIGHT MANAGEMENT

DEFINE KEY TERMS AND CONCEPTS

1. Overweight
2. Obesity
3. Resting metabolic rate
4. Binge eating
5. Self-talk
6. Body image
7. Muscle dysmorphia
8. Eating disorders
9. Anorexia nervosa

10. Bulimia nervosa

11. Purging

12. Bing-eating disorder

STUDY QUESTIONS

Give the “secret” to successful weight management.

Health Implications of Overweight and Obesity

Give the estimated prevalence of overweight for the following groups.

Children, age 6-11 years:

Adolescents, age 12-19 years:

Adult women:

Adult men:

About how many premature deaths in the U.S. can be attributed to inactivity and overweight?

List five disorders increased in obesity.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Factors Contributing to Excess Body Fat

List four broad categories that may determine factors for overweight and obesity.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Genetic Factors

Hereditary influences to overweight and obesity must be balanced against the contribution of _____.

Physiological Factors

List three physiological factors that influence levels of overweight and obesity.

- 1.
- 2.
- 3.

Metabolism and Energy Balance

About how much of the daily energy expenditure does the RMR account for?

Do men have a higher or lower RMR than women?

Chronic exercise [increases/ decreases] the RMR.

Hormones

Name one hormone thought to be important in determining levels of body fat.

Weight Cycling

Give the reason why weight cycling may contribute to increases levels of body fat.

Lifestyle Factors

List two lifestyle factors that have profound effects on increasing the risk for excess body fat.

- 1.
- 2.

Eating

For children who consume fast food, about how many extra kCals per day do they consume?

By how much do people regularly underestimate portions sizes?

Since 1970, the average calorie intake by Americans has increased by how many kCals?

Physical Activity format

On average, about how much time do Americans spend watching TV and movies, and how much time to they spend exercising?

TV:

Exercising:

Psychosocial Factors

Is obesity positively or negatively associated with socioeconomic status?

Adopting a Healthy Lifestyle for Successful Weight Management

List four healthy lifestyle behaviors critical for successful, long-term weight management.

- 1.
- 2.
- 3.
- 4.

Diet and Eating Habits

Briefly distinguish between dieting and a diet.

Total Calories

List the approximate daily energy intake suggested for weight maintenance for the following individuals (See Table 8.4).

Sedentary women and some older adults:

Most children, teenage girls, active women,
and many sedentary men:

Teenage boys, many active men, and some
very active women:

One pound of body fat represents how many kCals?

Portion Sizes

What is meant by the term "portion distortion?"

Energy (Calorie) Density

List five strategies to lower the energy density of your diet.

- 1.
- 2.
- 3.
- 4.
- 5.

Fat Calories

List two kinds of fat to avoid.

- 1.
- 2.

List three kinds of food high in unhealthy fats.

- 1.
- 2.
- 3.

Carbohydrates

A healthy diet to support long-term weight management should include these three complex carbohydrates.

- 1.
- 2.
- 3.

Protein

Give the recommended protein intake range for most Americans.

Eating Habits

Give one good general rule to follow concerning eating habits and successful weight management.

Physical Activity and Exercise

Compute total kCals for shoveling snow for 70 minutes for a person who weighs 160 lbs (See Table 9.2).

Exercise

List the three components of a formal exercise program.

- 1.
- 2.
- 3.

Thoughts and Emotions

Name the procedure you can use to have an internal dialogue with yourself for positive motivation.

Coping Strategies

Name one strategy that many people adopt for coping with stresses and life challenges.

Approaches to Overcoming a Weight Problem**Doing It Yourself**

For someone who is overweight, a reasonable weight loss would equal about what percentage of body weight over a 6-month period.

Diet Books

List five criteria when evaluating and choosing a diet book.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Dietary Supplements and Diet Aids

List three over-the-counter products promoted for appetite control and fat loss.

- 1.
- 2.
- 3.

Name the herb banned by the FDA in 2004.

List three over-the-counter weight loss herbal aids and possible safety issues of each.

Herb	Safety Issue
1.	
2.	
3.	

Other Supplements and Diet Aids

List four supplements commonly used for weight loss.

1.	3.
2.	4.

Weight-Loss Programs

Noncommercial Weight-Loss Programs

Name two non-commercial weight loss programs that offer support and do not advocate any particular diet program.

- 1.
- 2.

Commercial Weight-Loss Programs

List five features of a safe, commercial weight-loss program.

- 1.
- 2.
- 3.
- 4.
- 5.

Online Weight-Loss Programs

What appears to be one aspect of on-line weight-loss that can make it successful?

Clinical Weight-Loss Programs

Clinical weight loss programs are designed for which segment of the population?

Prescription Drugs

List the three processes a medicine must affect to determine its success.

- 1.
- 2.
- 3.

List two appetite suppressants.

- 1.
- 2.

Name the FDA approved drug that blocks fat absorption in the intestines.

Obesity drugs are prescribed usually for a person with what characteristics?

Surgery

Give the name of the most common surgery for obesity.

List two negative side effects of obesity surgery.

- 1.
- 2.

Psychological Help

A weight-management therapist should have experience dealing with the following three conditions.

- 1.
- 2.
- 3.

Body Image

Body image consists of the following three variables.

- 1.
- 2.
- 3.

Severe Body Image Problems

Briefly discuss the effects of body dysmorphic disorder (BDD).

Which type of individual is most likely to suffer from muscle dysmorphia?

Acceptance and Change

List four strategies to minimize risk for developing body image problems.

- 1.
- 2.
- 3.
- 4.

Eating Disorder

List the three most common eating disorders.

- 1.
- 2.
- 3.

Anorexia Nervosa

List the BMI used to diagnose anorexia?

Briefly describe two prominent characteristics of anorexia.

- 1.
- 2.

Bulimia Nervosa

Briefly describe two prominent characteristics of bulimia.

- 1.
- 2.

Binge-Eating Disorder

Briefly describe characteristics of a binge-eating disorder.

Treating Eating Disorders

List four strategies to help a friend who may have an eating disorder.

- 1.
- 2.
- 3.
- 4.

Creating an Individual Weight-Management Plan

List six strategies to create a lifetime weight management plan.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Put Your Plan Into Action

List three strategies to increase the success of long-term weight management.

- 1.
- 2.
- 3.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Controlling body weight is best accomplished by:
 - a. balancing calories consumed with calories expended
 - b. following the latest commercial weight-loss program
 - c. taking dietary supplements and eating a low-calorie diet
 - d. eating a low-carbohydrate diet
2. The greater the amount of muscle mass, the:
 - a. lower the resting metabolic rate
 - b. higher the resting metabolic rate
 - c. more fat is needed in the diet
 - d. easier it is to gain weight
3. Lifestyle factors for successful weight management include all of the following EXCEPT:
 - a. physical activity
 - b. positive attitude
 - c. emotional eating
 - d. coping strategies
4. A person's ongoing internal comments and discussion:
 - a. self-blame
 - b. self-image
 - c. self-esteem
 - d. self-talk
5. Drug to facilitate weight loss by blocking fat absorption:
 - a. sibutramine
 - b. orlistat
 - c. leptin
 - d. phentermine

TRUE/FALSE QUESTIONS

1. Balancing calories consumed with calories expended in daily activities can control body weight and body fat.
2. On average, Americans spend more than ten times more time watching television each day than they do exercising.
3. Carbohydrates should make up no more than 30% of daily calorie intake.
4. A person should not reduce more than 0.5 to 2 pounds weekly.
5. The body mass index (BMI) of Miss America winners has increased since the 1920s, paralleling the increase in BMI among Americans.

LABORATORY ACTIVITIES

Complete Lab 9.1, 9.2 and 9.3. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

1. Project ten years into the future what you believe will be your greatest challenges to maintain a desirable body weight?
2. Discuss perceptions, images, thoughts, attitudes and emotions that have had profound influences on how you view your body. Have these factors changed since attending college?



CHAPTER TEN

STRESS

DEFINE KEY TERMS AND CONCEPTS

1. Stressor
2. Stress response
3. Stress
4. Autonomic nervous system
5. Parasympathetic division
6. Sympathetic division
7. Norepinephrine
8. Endocrine system
9. Hormone

10. Cortisol

11. Epinephrine

12. Endorphins

13. Fight-or-flight syndrome

14. Homeostasis

15. Somatic nervous system

16. General adaptation syndrome (GAS)

17. Eustress

18. Distress

19. Psychoneuroimmunology (PNI)

20. Burnout

21. Relaxation response

22. Depression

STUDY QUESTIONS

What is Stress?

In a general way, what is stress?

Physical Responses to Stressors

List the body's two major control systems responsible for physical responses to stressors.

- 1.
- 2.

Actions of the Nervous System

List the three main components of the nervous system.

- 1.
- 2.
- 3.

List the two divisions of the autonomic nervous system.

- 1.
- 2.

Sympathetic nerves use the neurotransmitter _____ to exert their actions on body organs.

Actions of the Endocrine System

List one important target of the sympathetic nervous system.

The Two Systems Together

List 10 profound physiological changes produced by cortisol and epinephrine (See Figure 10.1).

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

5.

8.

6.

9.

7.

10.

Give an example of the fight-or-flight reaction.

The Return to Homeostasis

Explain homeostasis?

List two examples of homeostasis.

1.

2.

The Fight-or-Flight Reaction in Modern Life

Give an example of an unnecessary fight-or-flight reaction.

Emotional and Behavioral Responses to Stressors

List two factors to reduce the magnitude of the stress response.

1.

2.

List two examples of cognitive (mental) appraisal.

1.

2.

Effective and Ineffective Responses

List three common emotional responses to stressors.

1.

2.

3.

Name the part of the nervous system that controls conscious action to stressors.

Personality and Stress

Describe three personality characteristics of a Type A personality.

- 1.
- 2.
- 3.

Describe three personality characteristics of a Type B personality.

- 1.
- 2.
- 3.

Describe three personality characteristics of a Type C personality.

- 1.
- 2.
- 3.

Gender and Stress

Explain how men and women differ in their experience of the flight-or-fight response.

Past Experiences

List two examples of how past experiences profoundly influence the evaluation of a potential stressor.

- 1.
- 2.

The Stress Experience as a Whole

Explain how intensity impacts the physical, emotional, and behavioral responses to stressors.

Stress and Wellness

List four factors that interact with stress to impact vulnerability to illness and ailments.

- 1.
- 2.
- 3.
- 4.

The General Adaptation Syndrome

Briefly describe Selye's GAS.

List the three stages of GAS and describe each.

- 1.
- 2.
- 3.

Alarm

List two conditions individuals are susceptible to during the alarm phase of stress.

- 1.
- 2.

Resistance

Can a person cope with normal life and added stress during the resistance phase of the stress syndrome?

Exhaustion

Briefly describe what happens during the exhaustion phase of the stress syndrome.

Allostatic Load

Describe one objection to Selye's model of GAS.

What is a high allostatic load?

Psychoneuroimmunology

Describe the underlying premise of PNI.

What is a neuropeptide and what is its function?

Links Between Stress and Specific Conditions

Cardiovascular Disease

List two cardiovascular disease effects of the stress response.

- 1.
- 2.

Altered Functioning of the Immune System

List four altered functions of the immune system to the stress response.

- 1.
- 2.
- 3.
- 4.

Other Health Problems

List six "other" health problems linked to the stress response.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Common Sources of Stress

List the four sources of stressors.

- 1.
- 2.
- 3.
- 4.

Major Life Changes

What two periods in a person's life are typically associated with significant stress, and give an example of each?

1.

2.

Daily Hassles

List eight examples of daily hassles.

1.

5.

2.

6.

3.

7.

4.

8.

College Stressors

List two examples of stress for each of these categories of stress.

Category**Example**

Academic 1.

2.

Interpersonal 1.

2.

Time-related Pressures 1.

2.

Financial Concerns 1.

2.

Job-Related Stressors

List five common complaints workers have about their jobs that lead to stress.

- 1.
- 2.
- 3.
- 4.
- 5.

What is "burnout" and how does it relate to stress?

Interpersonal and Social Stressors

List examples of two interpersonal stressors.

- 1.
- 2.

Other Stressors

List four environmental stressors.

- 1.
- 2.
- 3.
- 4.

Managing Stress**Counterproductive Strategies for Coping with Stress**

List four counterproductive "unhealthy" strategies that negatively impact stress.

- 1.
- 2.
- 3.
- 4.

Exercise

Which type of "exercise" program has proven most beneficial for managing stress?

Nutrition

Name the "food" that should probably be avoided to reduce stress.

Sleep

List three functions improved with adequate sleep.

- 1.
- 2.
- 3.

Social Support

List four things you can do to strengthen your social ties (See “Wellness Connection: Building Social Support”).

- 1.
- 2.
- 3.
- 4.

Communication

List three warning signs of possible violent behavior patterns (See “Take Charge: Dealing with Anger”).

- 1.
- 2.
- 3.

Strive for Spiritual Wellness

List four possible explanations of why spirituality may help cope with stress.

- 1.
- 2.
- 3.
- 4.

Confide in Yourself Through Writing

Is it a good idea to write a journal about traumatic and stressful events? Why?

Time Management

List ten strategies to improve time management skills.

- 1.
- 2.
- 3.
- 4.

- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Cognitive Techniques

List four strategies to change possible destructive thinking.

- 1.
- 2.
- 3.
- 4.

Relaxation Techniques

Briefly describe the relaxation response.

Progressive Relaxation

Briefly describe progressive relaxation.

Visualization

Give another word to describe visualization.

Deep Breathing

Describe the type of breathing that supports relaxation.

Listening to Music

List one physiologic effect of listening to music.

Other Techniques

List four additional strategies to reduce stress.

- 1.
- 2.
- 3.
- 4.

Getting Help

Give one example for each of these methods for grappling with painful “stressful” situations.

Peer counseling and support groups:

Professional help:

Is it Stress or Something More Serious?

List four of the more serious problems that require professional help.

- 1.
- 2.
- 3.
- 4.

Depression

Explain why depression is of particular concern.

List nine symptoms of depression.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

List three criteria for choosing and evaluating a mental health professional (See Critical Consumer: Choosing and Evaluating Mental Health Professionals).

- 1.
- 2.
- 3.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Stress can be the result of:
 - a. negative situations
 - b. pleasurable challenges
 - c. achievement of goals
 - d. all of the above
2. The sympathetic division is best defined as:
 - a. division of the autonomic nervous system that reacts to danger or other challenges by almost instantly putting the body processes in high gear
 - b. part of the brain that activates, controls, and integrates autonomic mechanisms, endocrine activities, and many bodily functions
 - c. division of the autonomic nervous system that moderates the excitatory effect of the parasympathetic system, slowing metabolism and restoring energy supplies
 - d. branch of the peripheral nervous system that governs motor functions and sensory information; it is largely under conscious control
3. The somatic nervous system manages:
 - a. conscious actions
 - b. emotions
 - c. the fight-or-flight reaction to a stressor
 - d. hormones released in response to a stressor
4. Which of the following is NOT an example of an effective response to stress?
 - a. overeating
 - b. laughing
 - c. talking
 - d. meditating
5. Which of the following is an example of an effective response to stress?
 - a. using tobacco
 - b. drinking alcohol
 - c. taking drugs
 - d. learning new skills

TRUE/FALSE QUESTIONS

1. Stress can result from either negative or positive situations.
2. The somatic nervous system controls behavioral responses to stress.
3. The “tend-and-befriend” response to stressors is more common in women than men.
4. People who work in rewarding “helping” professions such as teachers and social workers are less prone to burnout than people in other types of professions.
5. Spiritual practices can elicit the relaxation response.

LABORATORY ACTIVITIES

Complete Lab 10.1 and 10.3. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

1. If you were asked to counsel a peer who was undergoing a period of unusual stress, describe four techniques you would suggest to help relieve the stressor.
2. A friend complains often about having mild to severe headaches. What should they know about the relationship between the headaches and stress?



CHAPTER ELEVEN

CARDIOVASCULAR HEALTH

DEFINE KEY TERMS AND CONCEPTS

1. Cardiovascular disease (CV)
2. High-density lipoproteins (HDL)
3. Low-density lipoproteins (LDL)
4. Platelets
5. Environmental tobacco smoke (ETS)
6. Hypertension
7. Atherosclerosis
8. Lipoproteins
9. Obesity

10. Glycemic index (GI)

11. Glycemic load

12. Plaque

13. Coronary Heart Disease (CHD)

14. Metabolic Syndrome X

15. C-reactive protein

16. Homocysteine

17. Lipoprotein(a) or Lp(a)

18. Heart attack

19. Angina pectoris

20. Arrhythmia

21. Sudden cardiac death

22. Stroke

23. Rheumatic fever

24. Congestive heart failure

STUDY QUESTIONS

Risk Factors for Cardiovascular Disease

Name the two categories of risk factors for CVD

Category 1:

Category 2:

Major Risk Factors That Can Be Changed

List six major risk factors for CHD identified by the AHA

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Tobacco Use

About one in _____ deaths from CVD can be attributed to smoking.

People who smoke one pack of cigarettes daily have _____ the risk of heart attack than nonsmokers; smoking two or more packs daily _____ the risk.

Women who smoke and use oral contraceptives are up to _____ times more likely to have a heart attack and _____ times more likely to have a stroke than nonsmokers who take the pill.

List six ways that smoking harms the cardiovascular system.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

How many nonsmokers die from heart attack each year from exposure to ETS?

High Blood Pressure

When does high blood pressure occur?

Are there early warning signs of high blood pressure?

Unhealthy Cholesterol Levels

List five functions of cholesterol.

- 1.
- 2.
- 3.
- 4.
- 5.

List two major differences between “good” and “bad” cholesterol.

- 1.
- 2.

List desirable (or optimal) levels for the following.

1. LDL:
2. Total cholesterol:
3. HDL:
4. Triglyceride:

How many American adults have cholesterol levels that exceed $200 \text{ mg} \cdot \text{dl}^{-1}$?

List four ways to raise HDL levels.

- 1.
- 2.
- 3.
- 4.

Figure 11.1 illustrates the round trip “transportation process” to bring cholesterol consumed as food to the liver, then through the arterial system, and its return to the liver. Briefly describe the eight-stage sequence presented in the figure.

Stage 1.

Stage 2.

Stage 3.

Stage 4.

Stage 5.

Stage 6.

Stage 7.

Stage 8.

Physical Inactivity

List five ways that increased physical activity lowers CVD.

- 1.
- 2.
- 3.
- 4.
- 5.

Obesity

Explain why a person who weighs >30% above the recommended level is at greater risk for CVD.

List two of the best ways a person can achieve and maintain a healthy body weight.

- 1.
- 2.

Diabetes

Explain why individuals with diabetes (or pre-diabetes) are at increased risk for CVD.

Contributing Risk Factors That Can Be Changed

High Triglyceride Levels

List seven factors that contribute to elevated triglyceride levels.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

What solution options should individuals pursue who have:

Borderline high triglyceride levels:

High triglyceride levels:

Psychological and Social Factors

Explain how each of these six factors relates to CVD.

Stress:

Chronic hostility and anger:

Suppressing psychological distress:

Depression and anxiety:

Social isolation:

Low economic status:

Alcohol and Drugs

List three risk factors that are increased due to excessive alcohol intake.

- 1.
- 2.
- 3.

Major Risk Factors That Can't Be Changed

List four unchangeable risk factors.

- 1.
- 2.
- 3.
- 4.

Possible Risk Factors Currently Being Studied

Explain how each of these five factors may play a possible role in CVD.

C-reactive protein:

Homocysteine:

Lp(a):

Infectious agents (e.g., Chlamydia pneumoniae, cytomegalovirus, Helicobacter pylori):

Metabolic syndrome (Syndrome X or insulin resistance syndrome):

Major Forms of Cardiovascular Disease**Atherosclerosis**

Explain the four stages of plaque buildup (Refer to Figure 11.3).

Stage 1:

Stage 2:

Stage 3:

Stage 4:

Heart Disease and Heart Attacks

Give another name for heart attack.

Briefly describe angina pectoris.

Briefly describe arrhythmia.

Give another name of sudden cardiac death.

Give three symptoms of a pending heart attack.

- 1.
- 2.
- 3.

Stroke

What is the most likely cause of ischemic strokes?

Of the approximately 600,000 Americans a year who have a stroke, how many will die within the year of their stroke?

What is the most effective treatment for stroke?

List the five warning signs of stroke (See Take Charge: What to Do in Case of a Heart Attack, Cardiac Arrest, or Stroke).

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Congestive Heart Failure

List five conditions that can damage the heart's pumping mechanism.

- 1.
- 2.
- 3.
- 4.
- 5.

What is congestive heart failure and how is it treated?

Protecting Yourself Against Cardiovascular Disease

List eight important steps to lower your risk for developing CVD in the future (See Figure 11.5).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Eat Heart Healthy**Decreased Fat And Cholesterol Intake**

List five NCEP recommendations for most Americans relative to dietary intake.

- 1.
- 2.
- 3.
- 4.
- 5.

Increased Fiber Intake

Compare the characteristics between soluble (viscous) and insoluble fiber.

Decreased Sodium Intake and Increased Potassium Intake

Give the recommended limit for sodium intake per day.

Alcohol

Define the term “moderate” in terms of alcohol consumption.

DASH

List the eight recommendations of the DASH diet plan.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Exercise Regularly

What exercise prescription should you follow to reduce your CVD risk?

Number of workout days weekly:

Workout duration:

Exercise intensity:

Two examples of exercise activities:

- 1.
- 2.

Avoid Tobacco

What is the major reason to avoid smoking-related products?

Know And Manage Your Blood Pressure

Give the percentage of Americans with hypertension that has their blood pressure under control?

How often should you have your blood pressure measured if you have no CVD risk factors?

Know And Manage Your Cholesterol Levels

How often should you be tested to assess your lipoprotein profile (HDL, LDL, triglyceride levels)?

Give the goal for LDL cholesterol if you have two or fewer risk factors.

Give the goal for LDL cholesterol if you have two or more risk factors.

Give the goal for LDL cholesterol if you have CVD or diabetes.

Develop Ways To Handle Stress And Anger

List five strategies of how you can reduce psychological and social risk factors for CVD. (Refer to Chapter 10.)

- 1.
- 2.
- 3.
- 4.
- 5.

Know Your Risk Factors

If you are at moderate to high risk for CVD, consult your physician about taking small doses of _____.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Leading cause of death in the United States:
 - a. unintentional injuries
 - b. cancer
 - c. cardiovascular disease
 - d. AIDS
2. High blood pressure contributes to CVD by:
 - a. displacing oxygen in the blood
 - b. scarring and hardening arteries
 - c. increasing stroke volume of the heart
 - d. increasing the number of red blood cells
3. The National Cholesterol Education Program recommends that all adults have their lipoprotein levels measured at least once every:
 - a. year
 - b. 2 years
 - c. 5 years
 - d. 10 years
4. Cardiovascular disease risk is greatest for people who tend to store body fat in this body region:
 - a. torso
 - b. hips
 - c. thighs
 - d. shoulders
5. Recommended triglyceride level for adults:
 - a. less than 400 mg/dl
 - b. less than 150 mg/dl
 - c. 100 mg/dl or more
 - d. 60 mg/dl or more

TRUE/FALSE QUESTIONS

1. The six major risk factors for cardiovascular disease that can be changed are tobacco use, high blood pressure, obesity, unhealthy cholesterol levels, diabetes, and physical inactivity.
2. Long-term exposure to environmental tobacco smoke increases a person's risk for cardiovascular disease.
3. LDL cholesterol is the less healthy form of cholesterol.
4. Exercise can help to reduce cardiovascular disease risk by decreasing blood pressure and increasing HDL levels.
5. Ventricular fibrillation is the most common cause of sudden cardiac death.

LABORATORY ACTIVITIES

Complete Lab 11.1. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

Looking into the future 20 years from now, what do you predict will be the most important lifestyle factors that will increase your risk for cardiovascular disease?



CHAPTER TWELVE

CANCER

DEFINE KEY TERMS AND CONCEPTS

1. Cancer
2. Benign tumor
3. Malignant tumor
4. Lymphatic system
5. Metastasis
6. Carcinogen
7. Mammogram
8. Ultrasonography
9. Biopsy

10. PSA blood test

11. Pap test

12. Ultraviolet (UV) radiation

13. Basal cell carcinoma

14. Squamous cell carcinoma

15. Melanoma

16. SPF

17. UVB radiation

18. Chromosomes

19. DNA

20. Gene

21. Mutagen

22. Oncogene

23. Carotenoid

24. Antioxidant

25. Free radicals

26. Phytochemical

27. HPV

28. Sigmoidoscope

29. Chemotherapy

30. Induction chemotherapy

31. Bone marrow transplant

32. Anti-angiogenesis agents

STUDY QUESTIONS

What Is Cancer?

Cancer causes more than _____ deaths in the United States each year.

More than _____ of all cancers in the United States could be prevented by simple changes in lifestyle.

Benign Versus Malignant Tumors

True or False: Not all tumors are cancers.

List two differences between a benign and malignant tumor.

1.

2.

True or False: A malignant tumor cannot invade blood vessels.

True or False: Malignant cells divide and gradually produce a mass of abnormal cells.

True or False: A pea-sized tumor contains about one billion cells.

How Cancer Spreads: Metastasis

Explain how cancer cells spread.

Explain why early cancer detection is critical.

Common Cancers

Each year, about _____ million people are diagnosed with cancer.

At current United States rates, about _____ men and _____ women will develop cancer at some point in their lives.

For the 230,110 new cases of prostate cancer, _____ men will die.

For the 40,320 new cases of uterine cancer, _____ women will die.

What is the ratio of all new cases of cancer to the number of deaths from all cancers for men and women? (See Figure 12.2; compute the ratio as total deaths/total new cases x 100.)

Men:

Women:

Lung Cancer

Lung cancer is responsible for about _____ deaths yearly.

What is the chief risk factor for lung cancer?

Long-term exposure to environmental tobacco smoke (ETS), or second hand smoke, causes about _____ lung cancer deaths in nonsmokers yearly.

List three primary ways to treat lung cancer.

- 1.
- 2.
- 3.

_____ percent of lung cancer patients remain alive 5 years after diagnosis.

Colon and Rectal Cancer

True or False: About 90% of colorectal cancer is diagnosed in people age 65 and older.

True or False: Inherited gene mutations account for about 15 to 30% of colon cancers.

List five risk factors for colorectal cancer.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

List six protective lifestyle factors against colorectal cancer. Spacing not right above

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

List the two standard warning signs of colorectal cancer.

- 1.
- 2.

Breast Cancer

In the United States, about one in _____ women will develop breast cancer in her lifetime.

A woman with two close relatives with breast cancer is _____ to _____ times more likely to develop the disease than a woman without close relatives with breast cancer.

List seven risk factors for breast cancer.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Explain why estrogen emerges as a unifying factor for many of the breast cancer risk factors.

List the three-part approach the American Cancer Society (ACS) uses for breast cancer screening.

- 1.
- 2.
- 3.

Name two new drugs (selective estrogen-receptor modulators) to treat breast cancer.

- 1.
- 2.

Prostate Cancer

True or False: Prostate cancer is the most common cancer in men.

What is the single best predictor of prostate cancer risk?

What ethnic group has the highest rate of prostate cancer of any group in the world?

List two categories of factors related to increased prostate cancer risk.

- 1.
- 2.

Explain how the PSA test helps to diagnose prostate cancer.

The 5-year survival rate for all stages of prostate cancer is about _____ percent.

Cancers of the Female Reproductive Tract

Cervical Cancer

True or False: Cervical cancer is at least in part a sexually transmitted disease.

Unprotected sex from HPV (human papillomavirus) causes about _____ % of cervical cancer.

True or False: A Pap test detects cervical dysplasia.

Uterine or Endometrial Cancer

List five risk factors for endometrial cancer.

- 1.
- 2.
- 3.
- 4.
- 5.

When endometrial cancer is detected early, about _____ % are alive and disease-free _____ years later.

Ovarian Cancer

True or False: A Pap test is the best screening test for ovarian cancer.

List five risk factors for ovarian cancer.

- 1.
- 2.
- 3.
- 4.
- 5.

List three factors that appear to reduce ovarian cancer risk.

- 1.
- 2.
- 3.

True or False: Ovarian cancer is treated by surgical removal of one or both ovaries, the fallopian tubes, and uterus.

Other Female Reproductive Tack Cancers

Explain the meaning of a DES daughter or DES son.

Skin Cancer

Explain the differences between UVA and UVB radiation.

Explain the difference between suntan and sunburn.

Explain the differences among the following three types of skin cancers.

Basal cell carcinoma:

Squamous cell carcinoma:

Melanoma:

List the four warning signs of melanoma (ABCD test).

- A:
- B:
- C:
- D:

What is sun protective clothing?

What one important “fact” should you know about tanning salons?

Oral Cancer

Oral cancer can be traced principally to these five factors.

- 1.
- 2.
- 3.
- 4.
- 5.

List the two primary treatments for oral cancer.

- 1.
- 2.

Testicular Cancer

True or False: Testicular cancer is the most common cancer in men ages 20 to 35.

Name the group of Americans most susceptible to testicular cancer.

Other Cancers

List two “facts” about each of these cancers.

Pancreatic

- 1.
- 2.

Bladder

- 1.
- 2.

Kidney

- 1.
- 2.

Brain

- 1.
- 2.

Leukemia

- 1.
- 2.

Lymphoma

- 1.
- 2.

The Causes of Cancer**The Role of DNA****DNA Basics**

The body has ___ pairs of chromosomes.

The body has approximately this number of genes _____

DNA Mutations and Cancer

List three examples of mutagens.

- 1.
- 2.
- 3.

Explain the role of suppressor genes.

Explain the role of BRCA1.

Explain a major downside of testing and identification of hereditary cancer risks.

Cancer Promoters

Explain the role of a cancer promoter.

Give an example of a cancer promoter.

Dietary Factors

Explain how food choices play a role in cancer prevention.

Dietary Fat and Meat

Explain why diets high in fat and meat appear to contribute to certain cancers.

Alcohol

List two “facts” about excess alcohol intake and cancer risk.

- 1.
- 2.

Fried Foods

Name the carcinogen found in starchy foods that have been fried or baked at high temperatures?

Fiber

True or False: Scientific proof exists for high fiber’s protective effects on cancer prevention.

Fruits and Vegetables

List four examples of essential nutrients that reduce cancer risk.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

List six dietary guidelines (with examples) to reduce cancer risk.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Give three examples for changing eating habits to promote a more healthful diet (See “Take Charge: Eating More Fruits and Vegetables”).

Breakfast:

- 1.
- 2.
- 3.

Lunch:

- 1.
- 2.
- 3.

Dinner:

- 1.
- 2.
- 3.

Snacks and on the go

- 1.
- 2.
- 3.

Eating for Cancer Prevention

List six important dietary guidelines to reduce cancer risk.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Inactivity and Obesity

Give three reasons why researchers believe that exercise reduces colon cancer risk.

- 1.
- 2.
- 3.

Carcinogens in the Environment**Ingested Chemicals**

List four chemical compounds (preservatives) added to foods that may be carcinogenic.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Environmental and Industrial Pollution

True or False: Less than 2% of cancer deaths are caused by general environmental pollution, while greater risk occurs from occupational exposure in the workplace (5%).

Radiation

List six sources of radiation.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Microbes

List four microbes linked to some form of cancer.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Preventing Cancer

List five lifestyle guidelines that can lower your cancer risk.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

List the seven major warning signs of cancer identified by the acronym CAUTION (See Figure 12.5).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Linked to the greatest number of cancer deaths?
 - a. heredity/family history
 - b. smoking
 - c. pollution
 - d. ultraviolet radiation
2. Chief risk factor for lung cancer:
 - a. family history
 - b. alcohol
 - c. air pollution
 - d. tobacco smoke
3. Signal of colon and rectal cancer:
 - a. high fever
 - b. headaches
 - c. cramping
 - d. rectal bleeding
4. Mammography is recommended to check breast cancer for women above this age:
 - a. 20
 - b. 30
 - c. 40
 - d. 50
5. All of the following are risk factors for prostate cancer EXCEPT:
 - a. sedentary lifestyle
 - b. history of sexually transmitted diseases
 - c. diet rich in dairy products
 - d. diet rich in vegetable fiber

TRUE/FALSE QUESTIONS

1. Cancer is the leading cause of death in the United States.
2. Tobacco smoke is the chief risk factor for lung cancer.

3. The majority of women who are diagnosed with breast cancer have a family history of the disease.
4. Uterine and ovarian cancer affects mostly young women.
5. Pancreatic cancer is usually not detected until it has reached an advanced stage.

LABORATORY ACTIVITIES

Complete Lab 12.1. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

What lifestyle changes can you make to lower your cancer risk?



CHAPTER THIRTEEN

SUBSTANCE USE AND ABUSE

DEFINE KEY TERMS AND CONCEPTS

1. Drug
2. Psychoactive drug intoxication
3. Addictive behavior
4. Substance abuse
5. Physical dependence
6. Substance dependence
7. Tolerance
8. Withdrawal
9. Ethyl alcohol

10. Blood alcohol concentration (BAC)

11. Cirrhosis

12. Fetal alcohol syndrome (FAS)

13. Alcohol abuse

14. Alcohol dependence

15. Alcoholism

16. Binge drinking

17. DTs (delirium tremens)

18. Nicotine

19. Environmental tobacco smoke (ETS)

20. Mainstream smoke

21. Sidestream smoke

22. Ectopic pregnancy

STUDY QUESTIONS

Addictive Behavior

What is an addictive behavior?

What Is Addiction?

List five general characteristics typically associated with addictive behaviors.

- 1.
- 2.
- 3.
- 4.
- 5.

The Development of Addiction

Give one underlying factor that can be a reason some behaviors are potentially addictive.

True or False: There can be a genetic component to addiction.

Examples of Addictive Behaviors

Compulsive or Pathological Gambling

Give one reason compulsive gamblers give for not being able to stop gambling.

Compulsive gambling is often linked to what other possible condition?

True or False: Gamblers have a 35 times higher suicide rate than the general population.

Compulsive Buying or Shopping

Name the kind of items compulsive shoppers usually purchase?

Internet Addiction

True or False: In general, researchers are unconcerned that widespread Internet access may lead to potentially addictive gambling and shopping.

List four additional addictive behaviors besides shopping, spending, Internet surfing, gambling.

- 1.
- 2.
- 3.
- 4.

Psychoactive Drugs

List the five categories of commonly abused drugs; for each category, list one representative drug. (See Figure 13.1.)

Drug Category	Drug
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Drug Use, Abuse, and Dependence

List the two terms used by the APA instead of the term “addiction.”

- 1.
- 2.

Drug Abuse

List the four criteria used by the APA to define substance abuse.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Drug Dependence

List the seven specific criteria the APA uses to diagnose substance dependence.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | |

Who Uses (and Abuses) Drugs?

True or False: The use and abuse of drugs occur mainly in the upper socioeconomic levels.

Of the psychoactive drugs, list the top three rated “very high” for both physical and psychological dependence (See Table 13.2.):

- 1.
- 2.
- 3.

List five characteristics that place people at higher-than-average risk for trying illegal drugs.

- 1.
- 2.
- 3.
- 4.
- 5.

Explain why some people who use psychoactive escape dependency.

Treatment for Drug Abuse

Give the single best method to treat people with drug problems.

List seven signals “warning signs” that suggest drug dependence.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | |

Preventing Drug Abuse

List three things can be done to stop the demand for drugs.

- 1.
- 2.
- 3.

Explain the effects for each of the following “club drugs” (soft drugs). (See “In Focus: Club Drugs.”)

MDMA:

LSD:

Ketamine:

GHB:

Rohypnol:

The Role of Drugs in Your Life

Before you try a psychoactive drug (or even if you already have tried one or more), list five questions you should provide answers to.

- 1.
- 2.
- 3.
- 4.
- 5.

Alcohol

About what percentage of Americans over the age of 12 drink alcohol in some form?

True or False: Alcohol is the leading cause of death among people between ages 15 and 24.

Chemistry and Metabolism

If a beverage is 80 proof, it contains _____ % alcohol.

If a beverage is 96 proof, it contains _____ % alcohol.

What is the equivalent "size" of one drink for the following three beverages:

Beer:

Glass of table wine:

Cocktail:

Once consumed, these two body structures absorb the alcohol.

- 1.
- 2.

This organ is the main site of alcohol metabolism _____

Describe the immediate (acute) and long-term (chronic) effects of alcohol use on the following body organs or functions.

Organ	Acute Effects	Chronic Effects
Central Nervous System:		
Stomach:		
Sexual Functioning:		
Brain:		
Cardiovascular System:		

Immediate Effects of Alcohol

Give three reasons why a man generally has a higher blood alcohol concentration (BAC) than a woman.

- 1.
- 2.
- 3.

List five factors that generally indicate alcohol intoxication.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

In one research study, banning alcohol from college football games reduced the number of arrests, assaults, and stadium ejections by _____ %.

Drinking and Driving

In most states, the legal limit for BAC = _____ %.

List three immediate effects on the body that impairs driving safety.

- 1.
- 2.
- 3.

Describe eight erratic driving behaviors that characterize impaired driving.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | 8. |

Effects of Chronic Use of Alcohol

The average life span of alcohol abusers is _____ years shorter than non-abusers.

List four side effects of an inflamed pancreas from alcohol abuse.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

How many drinks per month are considered "heavy drinking" for men and women?

Men:

Women:

_____ syndrome is the most preventable cause of mental impairment in the Western world.

The prevalence rate of FES in the United States averages 1 or 2 in every _____ live births.

Briefly Explain ARND.

Alcohol Abuse

Describe seven warning signs of someone who is beginning to abuse alcohol or if someone you know is doing so.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

If you weigh 118 pounds, how many drinks in one hour will it take to raise your blood alcohol level above the legal limit (See Figure 13.3)?

Binge Drinking

_____ % of college students have reported binge drinking?

What is the definition of binge drinking for men and women.

Men:

Women:

What percentage of frequent student binge drinkers drive following binge drinking? _____.

What percentage of frequent student binge drinkers missed a class following binge drinking? _____.

Frequent student binge drinkers are _____ times more likely to have unprotected sex following binge drinking?

Alcoholism

List six symptoms of alcohol withdrawal.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

List two common characteristics of the DTs (delirium tremens).

- 1.
- 2.

Drinking and Responsibility

List six characteristics of someone characterized as drinking moderately and responsibly (See “Take Charge: Drinking Behavior and Responsibility”).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

List four desirable traits that encourage responsible drinking in others.

- 1.
- 2.
- 3.
- 4.

Tobacco

True or False: Smoking causes more ill health than any other behavior.

Name ethnic group that exhibits the greatest number smokers (See Table 13.5).

Nicotine Addiction

List three characteristics of nicotine withdrawal.

- 1.
- 2.
- 3.

Give the age most smokers begin to smoke?

Health Hazards of Cigarette Smoking

Name the major deadly chemical gas in cigarette smoke.

List six acute effects of smoking a cigarette (See Figure 13.4).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

List the two categories of the long-term effects of smoking.

- 1.
- 2.

List four long-term effects of smoking on the body.

- 1.
- 2.
- 3.
- 4.

List three benefits of quitting smoking (See “In Focus: Benefits of Quitting Smoking”).

- 1.
- 2.
- 3.

Other Forms of Tobacco

Cigars and Pipes

List the three health risks of cigar smoking.

- 1.
- 2.
- 3.

Clove Cigarettes and Bidis

Do clove cigarettes (kreteks) and beadies contain more or less tar, nicotine, and carbon monoxide as conventional American cigarettes?

Spit (Smokeless) Tobacco

Give the two forms of spit tobacco.

- 1.
- 2.

Give the most serious effects of using spit tobacco?

Environmental Tobacco Smoke

Give the two categories of environmental tobacco smoke.

- 1.
- 2.

Effects of ETS

Give the increased risk from exposure to ETS according to the EPA.

List three health conditions caused by ETS.

- 1.
- 2.
- 3.

Children and ETS

List two conditions the EPA estimates are increased in children directly because of ETS.

- 1.
- 2.

Avoiding ETS

Give four strategies to try and avoid ETS.

- 1.
- 2.
- 3.
- 4.

Smoking and Pregnancy

List four negative aspects related to smoking and pregnancy.

- 1.
- 2.
- 3.
- 4.

Action Against Tobacco

Every hour, ____ Americans die from preventable tobacco-related diseases.

Which state has been most aggressive in the fight against tobacco use, and now has the second lowest rate of smoking the USA?

Giving Up Tobacco

List two behavioral factors that increase the chance of a smoker permanently quitting.

- 1.
- 2.

What three things can you do if you are trying to quite smoking and you have the urge to smoke?

- 1.
- 2.
- 3.

List two nicotine replacement therapies and one non-nicotine medication.

Nicotine Replacement Therapy

- 1.
- 2.

Non-Nicotine Medication

- 1.

PRACTICE QUIZ

MULTIPLE CHOICE QUESTIONS

1. Psychoactive drug:
 - a. increases the rate of physiological functions
 - b. alters a person's experiences or consciousness
 - c. affects only the brain and nerve cells
 - d. only available with a medical prescription
2. Which of the following would NOT be considered a psychoactive drug?
 - a. caffeine
 - b. heroin
 - c. alcohol
 - d. aspirin
3. Characteristic that indicates drug dependence:
 - a. coping
 - b. withdrawal
 - c. anxiety
 - d. genetic predisposition
4. The approximate amount of alcohol that the body can metabolize in 1 hour:
 - a. 1/2 of a beer or drink
 - b. 1 beer or drink
 - c. 1-1/2 beers or drinks
 - d. 2 beers or drinks
5. The average life span of an alcohol abuser is how years shorter compared to nonabusers of alcohol?
 - a. 1 to 2
 - b. 4 to 5
 - c. 7 to 9
 - d. 10 to 12

TRUE/FALSE QUESTIONS

1. Intoxication is the use of a substance over a long time period.
2. Drug dependence does not necessarily involve physical dependence.
3. Chronic marijuana use reduces IQ.
4. The human body metabolizes approximately one-half a drink per hour.
5. The majority of alcoholics recover without professional help.

LABORATORY ACTIVITIES

Complete Labs 13.1 and 13.2. Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

Briefly discuss what you think can be done to reduce the rampant abuse of alcohol by college students? Do you think your college or university should have rules and regulations regarding alcohol use in off-campus housing?



CHAPTER FOURTEEN

SEXUALLY TRANSMITTED DISEASES

DEFINE KEY TERMS AND CONCEPTS

1. Acquired immunodeficiency syndrome (AIDS)
2. Human immunodeficiency virus (HIV)
3. Sexually transmitted disease (STD)
4. HIV infection
5. CD4 T cells
6. Hemophilia
7. HIV-positive
8. Chlamydia
9. Gonorrhea

10. Pelvic inflammatory disease (PID)

11. Laparoscopy

12. Genital warts

13. Human papillomavirus (HPV)

14. Genital herpes

15. Hepatitis

16. Jaundice

17. Syphilis

18. Chancre

STUDY QUESTIONS

Name the virus that causes AIDS

About how many new cases of STDs occur in the United States per year?

At its current rate, about how many young people will acquire an STD by age 25?

The Major STDs

Name the seven STDs that pose major health threats.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Name the three bacterial STDs than can be cured with antibiotics.

1. _____
2. _____
3. _____

HIV Infection and AIDS

Women account for what percent of reported HIV cases in the United States?

What is HIV Infection

The destruction of the immune system is signaled by the loss of which cells?

Give the condition for the diagnosis of full-blown AIDS.

What is the average asymptomatic period of HIV?

Transmitting the Virus

True or False: HIV can live outside the body.

Name the four main routs of HIV transmission.

1. _____
2. _____
3. _____

Symptoms and Diagnosis

Give three symptoms of acute HIV infection.

- 1.
- 2.
- 3.

Name the infection most often seen among people with HIV.

Give the next step after a person has been diagnosed as HIV-positive.

Treatment

Name the three main types of HIV drugs.

- 1.
- 2.
- 3.

Briefly explain PEP.

List three “risky” behaviors that would recommend an HIV test (See Figure 14.3).

- 1.
- 2.
- 3.

About how many currently infective HIV patients in America are undergoing treatment?

Prevention

Describe the one principle way to avoid HIV.

Chlamydia

True or False: Only men are susceptible to chlamydia.

Name the disease from untreated chlamydia.

Symptoms

Give the major symptom of chlamydia for males and females.

Males:

Females:

Diagnosis and Treatment

How is chlamydia diagnosed?

How is chlamydia commonly treated?

Gonorrhea

True or False: Only men are susceptible to gonorrhea.

What disease results from untreated gonorrhea?

Symptoms

Give the major symptom of gonorrhea in males and females.

Males:

Females:

Diagnosis and Treatment

How is gonorrhea diagnosed?

How is gonorrhea commonly treated?

Pelvic Inflammatory Disease (PID)

True or False: Only men are susceptible to PID.

Name the disease that can result from untreated PID.

Symptoms

Give the major symptom of PID.

Diagnosis and Treatment

How is PID diagnosed?

How is PID commonly treated?

Genital Warts (Human Papillomavirus)

True or False: Only men are susceptible to genital warts.

What disease results from untreated genital warts?

Symptoms

Give the major symptom of genital warts.

Diagnosis and Treatment

How are genital warts diagnosed?

How are genital warts commonly treated?

Genital Herpes

True or False: Only men are susceptible to genital herpes.

What disease results from untreated genital herpes?

Symptoms

Give the major symptom of genital herpes for males and females.

Males:

Females:

Diagnosis and Treatment

How are genital herpes diagnosed?

How are genital herpes commonly treated?

Hepatitis B

What disease results from untreated hepatitis B?

How is hepatitis B generally transmitted?

Symptoms

Give the major symptom of hepatitis B.

Diagnosis and Treatment

How is hepatitis B diagnosed?

How is hepatitis B commonly treated?

Syphilis

Describe the causes of syphilis.

Describe secondary syphilis.

Describe congenital syphilis.

Symptoms

Give the major symptom of syphilis.

Diagnosis and Treatment

How is syphilis generally diagnosed?

How is syphilis generally treated?

Other STDs

List three other sexually transmitted diseases.

- 1.
- 2.
- 3.

What You Can Do**Education**

Describe one type of sex-education program proven successful with college students.

Diagnosis and Treatment

What should you do immediately if you have been diagnosed with an STD?

Prevention

List the one “sure way” to avoid exposure to STDs.

Next to abstinence, give the most effective approach to preventing STDs.

PRACTICE QUIZ**MULTIPLE-CHOICE QUESTIONS**

1. Curable with current therapies:
 - a. herpes
 - b. genital warts
 - c. syphilis
 - d. hepatitis
2. Caused by a virus:
 - a. chlamydia
 - b. gonorrhea
 - c. syphilis
 - d. genital warts

3. Number of college students infected with HIV:
 - a. 1 in 100
 - b. 1 in 250
 - c. 1 in 500
 - d. 1 in 1000
4. HIV attacks the:
 - a. lungs
 - b. genital secretions
 - c. immune system
 - d. blood circulation
5. Time between the initial HIV infection and onset of major disease symptoms in an untreated person:
 - a. hours
 - b. days
 - c. months
 - d. years

TRUE/FALSE QUESTIONS

1. Major viral STDs are not curable with current therapies.
2. HIV can live on toilet seats and eating utensils.
3. Most cases of HIV infection have occurred in developing countries.
4. Lubricants containing nonoxynol-9 can help to further reduce risk of HIV transmission when using condoms.
5. Young women are at greater risk than older women for contracting STDs due to cellular changes in the cervix with aging.

LABORATORY ACTIVITIES

Complete Lab 14.1. . Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

1. List several reasons why there are such high rates of STDs among college students.
2. What can be done to lower STDs rates among college students?



CHAPTER #15

WELLNESS FOR LIFE YES!

DEFINE KEY TERMS AND CONCEPTS

1. Friendship
2. Self-disclosure
3. Conflict resolution
4. Helper's high
5. Complimentary and alternative medicine
6. Greenhouse effect
7. Chlorofluorocarbons

STUDY QUESTIONS

Developing Successful Interpersonal Relationships

True or False: Love serves as the foundation for relationships.

Forming Relationships

List four characteristics that help to define relationships.

1. 3.
2. 4.

Self-Concept and Self-Esteem

What forms the basis for a positive self-concept and healthy level of self-esteem?

Friendship

Friendships usually include these eight characteristics.

1. 5.
2. 6.
3. 7.
4. 8.

Love and Intimacy

List three closely linked ideals typically present in an intimate relationship.

- 1.
- 2.
- 3.

Give one trait of a “mature” relationship.

Choosing a Partner

Typically, what kind of person do most people select as a partner?

Communication

True or False: The key to developing and maintaining any type of intimate relationship is good communication.

About _____ % of face-to-face communication is nonverbal.

List three forms of nonverbal communication.

- 1.
- 2.
- 3.

Communication Skills

List three keys to good communication in a relationship.

- 1.
- 2.
- 3.

Conflict and Conflict Resolution

True or False: Conflict is unnatural in intimate relationships.

True or False: Conflict is often accompanied by anger.

List six basic strategies in successfully negotiation with a partner.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

List six characteristics of an effective speaker (See "Take Charge: Guidelines for Effective Communication").

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Marriage

List seven relationship characteristics that appear to be the best predictors of a happy marriage.

- 1.
- 2.
- 3.

- 4.
- 5.
- 6.
- 7.

Successful Relationships, Successful Families

List six common qualities that appear in strong-bonded families.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Meeting the Challenges of Aging

True or False: If you take charge of your health during young adulthood, you can exert greater control over the physical and mental aspects of aging.

What Happens as You Age?

List eight physical changes that accompany aging.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | 8. |

Life-Enhancing Measures

It not "true" aging, what factors could explain many characteristics associated with aging?

List eleven "big picture" suggestions profoundly related to health in later life.

- 1.
- 2.
- 3.
- 4.

- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.

Using the Health Care System Intelligently

Managing Medical Problems

List two strategies to take a more active role in your own health care.

- 1.
- 2.

Managing Medical Problems

Give the first necessary step to manage your medical problems.

Knowing When to See a Physician

True or False: In most cases, the body heals itself with sufficient time and rest.

List two typical kinds of conditions that warrant a trip to the emergency room.

- 1.
- 2.

Self-Treatment: Many Options

List three typical nondrug options for self-healing.

- 1.
- 2.
- 3.

What does OTC stand for?

List examples of OTC drugs (or drug categories) for relief from the following:

Allergies:

Coughs:

Fever or pain:

Heartburn and indigestion:

Skin rashes:

Sore throat:

Sprains:

Minor wounds:

List eight simple guidelines to improve your chances of safely and effectively self-medicating.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | 8. |

Getting the Most Out of Medical Care

List four key elements to using the health care system effectively.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

Communicating with Your Physician

List three strategies for good communication with your physician.

- 1.
- 2.
- 3.

Obtaining Appropriate Screening Tests

List two conditions or diseases you should regularly screen.

- 1.
- 2.

Paying for Health Care

About how many Americans are without health insurance?

Briefly describe the basis of traditional health insurance.

Briefly describe the basis of managed health insurance.

Ask the following five questions before selecting a health insurance plan.

- 1.
- 2.
- 3.
- 4.
- 5.

Using Complementary and Alternative Medicine

If you are planning to use CAM (complimentary and alternative medicine), try to obtain answers to these four questions about CAM from your physician.

- 1.
- 2.
- 3.
- 4.

Environmental Health

True or False: Environmental health encompasses all the interactions between humans and the environment and health consequences of these interactions.

True or False: Many of the health challenges of the 21st century will not involve protecting the environment from the by-products of human activity.

Population Growth

What factor is probably responsible for most of the stress humans put on the environment?

What is the projected human population by the year 2200?

Why is this growth of concern in terms of health?

Pollution

True or False: Many modern environmental problems are problems of pollution.

True or False: Air pollution is almost exclusively a human invention.

The Greenhouse Effect, or Global Warming

Briefly describe the “greenhouse effect,” and explain why it occurs.

Thinning of the Ozone Layer

What substance in the Earth’s atmosphere is destroying the ozone layer?

Acid Precipitation

What causes acid rain or snow?

List four other kinds of pollution.

- | | |
|----|----|
| 1. | 3. |
| 2. | 4. |

What Can You Do?

Of the many actions you can take to help the environment, list five that seem most relevant to you. (See “Take Charge: What You Can Do for the Environment”).

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | |

Fit and Well for Life

True or False: Adopting a wellness lifestyle is the most important “thing” you can do to ensure a high quality of life for yourself, now and in the future.

True or False: You live in a world in which your own choices and actions have a tremendous impact on your health.

List the eight basics of behavior change applicable to adopting a wellness lifestyle.

- | | |
|----|----|
| 1. | 5. |
| 2. | 6. |
| 3. | 7. |
| 4. | 8. |

PRACTICE QUIZ**MULTIPLE-CHOICE QUESTIONS**

1. Which one of the following statements about self-concept and self-esteem is FALSE?
 - a. necessary prerequisite for a successful relationship is for both partners to have a positive self-concept
 - b. self-concept and self-esteem usually stem from an individual’s childhood experiences
 - c. if a positive self-concept does not develop during childhood, successful interpersonal relationships are impossible later in life
 - d. positive self-concept means that a person believes he or she is worthy of love and respect
2. Which of the following statements about conflict and conflict resolution is TRUE?
 - a. conflict is very dangerous to an intimate relationship
 - b. when partners are angry, they should deal with the situation immediately
 - c. brainstorming a variety of options can help to resolve conflicts
 - d. conflict indicates a relationship is not growing
3. Clarifying, negotiating, and brainstorming are all characteristics of:
 - a. friendship
 - b. communication skills
 - c. conflict resolution
 - d. successful families
4. Which of the following is NOT a component of good listening?
 - a. evaluating
 - b. respect
 - c. empathy
 - d. eye contact

5. The primary functions and benefits of marriage:
 - a. similar to those of any intimate adult relationship
 - b. easy to attain in a marriage
 - c. make marriage the best situation for everyone
 - d. come easily if couples love each other enough

TRUE/FALSE QUESTIONS

1. Social isolation is a threat to wellness.
2. People tend to select partners who are different from them.
3. The loss of bone mass that occurs with aging can be significantly minimized through regular exercise and proper diet.
4. Severe shortness of breath is one reason to go to the nearest emergency room.
5. Taking a bath typically uses less water than taking a shower.

LABORATORY ACTIVITIES

Complete Lab 15.1. . Explain your findings and briefly discuss their importance relative to your overall health and wellness.

THOUGHT QUESTIONS

Describe what “fit and well” means to you?

ANSWERS TO QUIZ QUESTIONS	
Chapter 1	
Multiple Choice Questions 1. Answer: d 2. Answer: a 3. Answer: b 4. Answer: b 5. Answer: a	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: F 4. Answer: T 5. Answer: F
Chapter 2	
Multiple Choice Questions 1. Answer: c 2. Answer: d 3. Answer: a 4. Answer: b 5. Answer: c	True/False Questions 1. Answer: T 2. Answer: F 3. Answer: T 4. Answer: F 5. Answer: T
Chapter 3	
Multiple Choice Questions 1. Answer: d 2. Answer: a 3. Answer: b 4. Answer: b 5. Answer: b	True/False Questions 1. Answer: F 2. Answer: F 3. Answer: T 4. Answer: T 5. Answer: F
Chapter 4	
Multiple Choice Questions 1. Answer: a 2. Answer: d 3. Answer: c 4. Answer: d 5. Answer: b	True/False Questions 1. Answer: F 2. Answer: F 3. Answer: F 4. Answer: F 5. Answer: F
Chapter 5	
Multiple Choice Questions 1. Answer: b 2. Answer: d 3. Answer: d 4. Answer: b 5. Answer: b	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: F 4. Answer: F 5. Answer: T

Chapter 6	
Multiple Choice Questions 1. Answer: b 2. Answer: b 3. Answer: b 4. Answer: d 5. Answer: a	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: F 4. Answer: T 5. Answer: T
Chapter 7	
Multiple Choice Questions 1. Answer: d 2. Answer: a 3. Answer: d 4. Answer: a 5. Answer: b	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: F 4. Answer: F 5. Answer: T
Chapter 8	
Multiple Choice Questions 1. Answer: d 2. Answer: b 3. Answer: a 4. Answer: b 5. Answer: b	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: T 4. Answer: T 5. Answer: F
Chapter 9	
Multiple Choice Questions 1. Answer: a 2. Answer: b 3. Answer: c 4. Answer: d 5. Answer: b	True/False Questions 1. Answer: T 2. Answer: T 3. Answer: F 4. Answer: T 5. Answer: F
Chapter 10	
Multiple Choice Questions 1. Answer: d 2. Answer: a 3. Answer: a 4. Answer: a 5. Answer: d	True/False Questions 1. Answer: T 2. Answer: T 3. Answer: T 4. Answer: F 5. Answer: T
Chapter 11	
Multiple Choice Questions 1. Answer: c 2. Answer: b 3. Answer: c 4. Answer: a 5. Answer: b	True/False Questions 1. Answer: T 2. Answer: T 3. Answer: T 4. Answer: T 5. Answer: T

Chapter 12	
Multiple Choice Questions 1. Answer: b 2. Answer: d 3. Answer: d 4. Answer: c 5. Answer: d	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: F 4. Answer: F 5. Answer: T
Chapter 13	
Multiple Choice Questions 1. Answer: b 2. Answer: d 3. Answer: b 4. Answer: a 5. Answer: d	True/False Questions 1. Answer: F 2. Answer: T 3. Answer: T 4. Answer: T 5. Answer: F
Chapter 14	
Multiple Choice Questions 1. Answer: c 2. Answer: d 6. Answer: c 3. Answer: c 4. Answer: d	True/False Questions 1. Answer: T 2. Answer: F 3. Answer: T 4. Answer: F 5. Answer: T
Chapter 15	
Multiple Choice Questions 1. Answer: c 2. Answer: c 3. Answer: c 4. Answer: a 5. Answer: a	True/False Questions 1. Answer: T 2. Answer: F 3. Answer: T 4. Answer: T 5. Answer: F

