

Chapter 01: Mechanisms of Disease, Diagnosis, and Treatment

Frazier and Fuqua: Essentials of Human Diseases and Conditions, 7th Edition

MULTIPLE CHOICE

1. Signs of disease
 - a. always cause symptoms.
 - b. rarely correlate with symptoms.
 - c. include abnormal objective findings.
 - d. are always described by the patient.

ANS: C

Signs, or abnormal objective findings, are the evidence of disease found by physical examination and diagnostic testing. Signs of disease often correlate with the symptoms.

REF: p. 2 OBJ: 2

2. Predisposing factors of disease
 - a. precisely predict the occurrence of disease.
 - b. make a person or group more vulnerable to disease.
 - c. never overlap or occur in combination.
 - d. can all be controlled by prevention.

ANS: B

A person may be susceptible to a greater or lesser degree, because of one or more risk factors that overlap or occur in combination. Predisposing factors include age, gender, lifestyle, environment, heredity, and *immunodeficiency*.

REF: p. 2 OBJ: 3

3. Genetic diseases may be
 - a. produced by an abnormality in or mutation of the genetic code in a single gene.
 - b. caused by several abnormal genes.
 - c. caused by the abnormal presence or absence of a chromosome or an alteration of the structure of chromosomes.
 - d. All of the answer options

ANS: D

Genetic predisposition (inheritance) currently is considered a major risk factor. Hereditary factors in disease that appear regularly in successive generations are likely to affect males and females equally. Hereditary or genetic diseases often develop as a result of the combined effects of inheritance and environmental factors.

REF: p. 6 OBJ: 8

4. Which statement is true of benign tumors?
 - a. Tend to remain encapsulated
 - b. Infiltrate surrounding tissue
 - c. Do not compress surrounding tissue or obstruct organs
 - d. Do not resemble the tissue of origin

ANS: A

Benign tumors usually develop slowly and can arise from any tissue. They tend to remain encapsulated and do not infiltrate surrounding tissue.

REF: p. 7

OBJ: 7

5. Which statement is true of malignant tumors?
- Tend to infiltrate other tissue.
 - Tend to bleed, ulcerate, and become infected.
 - May spread to distant sites in the body.
 - All of the answer options

ANS: D

Malignant tumors can represent a serious threat to the health and life of a person. Cancer cells are variable in appearance and disorderly (anaplastic) and tend to bleed, ulcerate, and become infected. Malignant tumors have the ability to infiltrate and invade the surrounding tissue. Often malignant cells enter the bloodstream or the lymphatic vessels and spread to distant sites in the body leading to tumor growth in other areas of the body.

REF: p. 8

OBJ: 7

6. Which statement is true regarding the TNM (tumor, nodes, metastasis) cancer staging system?
- Assesses the size and extent of the spread of the primary tumor.
 - Is a grading system based on the degree of differentiation of tumor cells.
 - Both answer options are true.
 - Neither answer options are true.

ANS: A

Although a number of different staging systems exist, the majority of cancers use a TNM system. TNM staging assesses the neoplasm in three different areas: the size or extent of the primary tumor (T), the extent of regional lymph node involvement by the tumor (N), and the number of distant metastases (M).

REF: p. 10

OBJ: 10

7. The tumor Gleason grade reflects which information about the tumor?
- Stage
 - Degree of abnormal microscopic appearance of the cells
 - Location
 - None of the answer options

ANS: B

The Gleason grade correlates with extent of disease throughout the body and with prognosis. Analysis of prostate tumor histology is performed, and the two predominant patterns are recorded and scored from 1 to 5 (1 represents a well-differentiated histology; 5 is the most poorly differentiated).

REF: p. 12

OBJ: 10

8. Which statement correctly states the sequence of an allergic response within the body?
- Immunoglobulin E (IgE) antibodies enter the body and produce an allergen.
 - The release of histamine sensitizes mast cells and produces symptoms.

- c. Exposure to allergen stimulates production of IgE antibodies that can subsequently trigger symptoms of allergy.
- d. Histamine produces mast cells, which stimulate plasma cells.

ANS: C

Initial exposure to an allergen, which acts as an antigen (a substance that causes the allergic response), stimulates the production of IgE antibodies, and the person thus is sensitized.

REF: p. 14 OBJ: 14

9. Systemic manifestation(s) of severe allergic responses include which problem?
- a. Arthralgia
 - b. Status asthmaticus
 - c. Anaphylaxis
 - d. All of the answer options

ANS: D

Severe systemic manifestations of allergic responses include anaphylaxis, serum sickness, arthralgia, and status asthmaticus. For example, anaphylaxis (anaphylactic shock), the result of a severe systemic allergic reaction, calls for emergency life-saving intervention.

REF: p. 14 OBJ: 14

10. Which order of steps is most accurate when making a diagnosis?
- a. Medical history, physical examination, diagnostic tests, diagnosis, integration of results, treatment
 - b. Medical history, diagnostic tests, physical examination, treatment plan
 - c. Physical examination, medical history, radiographs, prognosis, integration of all information
 - d. Comparison of normals, physical examination, history, treatment plan, prognosis

ANS: A

Establishing a diagnosis is a decision-making process in which data collected from the medical history, physical examination, and diagnostic tests are analyzed, integrated, and interpreted. A diagnosis provides a logical basis for determining treatment and prognosis.

REF: p. 16 OBJ: 16

11. Mechanical and chemical barriers, the inflammatory response, and the immune response are
- a. risk factors for disease.
 - b. the combined effects of inheritance and environmental factors.
 - c. included in the body's natural defense system against infection.
 - d. agents that damage deoxyribonucleic acid.

ANS: C

The body's natural defense systems against infection include (1) natural mechanical and chemical barriers, such as skin, the cilia, body pH, and normal body flora; (2) the inflammatory response; and (3) the immune response.

REF: p. 3 OBJ: 4

12. Immune disorders are the result of a breakdown in the body's defense system that may generate which problems?
- a. Allergies
 - b. Autoimmune diseases
 - c. Immunodeficiency disorders
 - d. All of the answer options

ANS: D

The immune system is a complex network of specialized cells and organs that has evolved to defend the body against attacks by foreign organisms.

REF: p. 14 OBJ: 13

13. Immunodeficiency disorders result from
- a. an exudative response.
 - b. physical trauma.
 - c. motor vehicle accidents.
 - d. a depressed or absent immune response.

ANS: D

Causative factors can be primary, manifested by a characteristic decrease in the number of T cells and B cells, leaving the body unable to adequately defend itself against infection and tumors.

REF: p. 15 OBJ: 13

14. Which statement(s) is/are correct regarding autoimmune diseases?
- a. The diseases allow the immune system to become self-destructive.
 - b. Many serious diseases have a strong autoimmune component.
 - c. Both answer options are correct.
 - d. Both answer options are incorrect.

ANS: C

In autoimmune diseases, antibodies are formed against self-antigens mistakenly identified as foreign.

REF: p. 15 OBJ: 15

15. *Homeostasis* refers to
- a. disease related to age.
 - b. internal stability of the body.
 - c. a chronic disease process.
 - d. genetic predisposition to disease.

ANS: B

Pathologic conditions involve measurable changes in normal structure and function that threaten the internal stability, or homeostasis, of the body.

REF: p. 2 OBJ: 1

16. Pathogens cause disease by
- a. invasion of living tissue.

- b. destruction of living tissue.
- c. intoxication.
- d. All of the answer options

ANS: D

Infectious diseases are caused by pathogens. The result is tissue damage that has the potential for producing systemic involvement.

REF: p. 3 OBJ: 6

17. The normal protective physiologic response(s) to tissue injury and disease is/are
- a. infection.
 - b. acute inflammation.
 - c. cachexia.
 - d. All of the answer options

ANS: B

Acute inflammation, a normal protective physiologic response to tissue injury and disease, is accompanied by redness, heat, swelling, pain, and loss of function. Widespread inflammation is marked by systemic symptoms, such as fever, malaise, and loss of appetite.

REF: p. 3 OBJ: 4

18. MRSA refers to a “superbug” that is
- a. methicillin-resistant *Staphylococcus aureus*.
 - b. a common cold virus.
 - c. a noninfectious, noncontagious skin condition.
 - d. All of the answer options

ANS: A

In addition to skin infections, MRSA can cause fatal pneumonia, bone infections, and septicemia. Many MRSA strains of bacteria are currently resistant to several different antibiotics.

REF: p. 4 OBJ: 5

19. The spread of “superbugs” can be controlled by
- a. frequent, thorough hand washing.
 - b. stricter infection control in all health care facilities.
 - c. considering everyone a risk for infection, especially in hospitals.
 - d. All of the answer options

ANS: D

Participating medical facilities have implemented active surveillance testing such as nasal swab tests on patient admission. Public education stresses thorough and frequent hand washing across the board as an effective practice of infection control in the community as well.

REF: p. 6 OBJ: 5

20. Anaphylaxis, serum sickness, arthralgia, and status asthmaticus are
- a. part of aging.