

**Test Bank for Clinical Pathology
for Athletic Trainers -
Recognizing Systemic Disease
4th Bhojani**

Clinical Pathology for Athletic Trainers Recognizing Systemic Disease

FOURTH EDITION

TEST BANK

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TEST BANK

Introduction

The questions in this Test Bank are provided as a resource for instructors to use when assessing their students' understanding of the pathophysiology, clinical presentation, diagnosis and therapeutic interventions for the injuries and systemic illnesses presented in *Clinical Pathology for Athletic Trainers: Recognizing Systemic Disease, Fourth Edition*. Questions are provided for Chapters 1 through 14 and are divided into 3 categories:

1. Multiple choice
2. Short answer/essay
3. Application/critical thinking

These questions could be used as an out-of-class assignment, as a quiz, or be incorporated into chapter tests. The answers for the multiple-choice questions are identified in bold text.

CHAPTER 1

Principles of Clinical Pathology and Decision Making

Multiple Choice

1. Regular medical check-ups and self-examination procedures are considered to be _____ prevention efforts.
a. primary
b. secondary
c. tertiary
d. unnecessary
2. Which of the following would be considered a symptom?
I. nausea
II. fever
III. headache
IV. sore throat
a. I and II
c. I, III, IV
b. III and IV
d. II
3. Early detection of illness is part of what stage of prevention?
a. primary
c. secondary
b. tertiary
d. quaternary
4. Reducing risk factors is part of what stage of prevention?
a. primary
c. secondary
b. tertiary
d. quaternary
5. Limiting an established disease and its effects are part of what stage of prevention?
a. primary
b. tertiary
c. secondary
d. quaternary

6. Which of the following is NOT part of the medical history?
- a. chief complaint(s)
 - b. description of present illness
 - c. **reflex testing**
 - d. review of systems
7. “What makes your condition better or worse” is asked during which part of the medical history?
- a. chief complaint
 - b. personal medical history
 - c. **history of present illness**
 - d. review of systems
8. Asking about a person’s known medical conditions is done during which part of the medical history?
- a. chief complaint
 - b. **personal medical history**
 - c. history of present illness
 - d. review of systems
9. Asking about specific symptoms to differentiate systemic illness from musculoskeletal injury is done during which part of the medical history?
- a. chief complaint
 - b. personal medical history
 - c. history of present illness
 - d. **review of systems**
10. Symptoms such as recurrent “sweats” and “chills,” pain at night, significant weight loss, and unusual fatigue suggest:
- a. musculoskeletal injury
 - b. **serious systemic illness**
 - c. cardiovascular disease
 - d. gastrointestinal illness
11. Social factors collected during the medical history that may be related to development of a systemic illness include all of the following EXCEPT:
- a. cigarette smoking
 - b. drinking alcoholic beverages
 - c. **family history of heart disease**
 - d. drinking caffeinated beverages
12. Referred pain is a term describing a symptom that:
- a. **is distant to the damaged tissue**
 - b. stays in a specific location
 - c. “comes and goes”
 - d. is sudden and high intensity
13. Pain produced by tissue damage that is constant and relieved by medication is caused by which of the following mechanisms?
- a. mechanical
 - b. perceptual
 - c. **chemical**
 - d. chronic
14. Physical stress on a tissue can cause pain by which of the following mechanisms?
- a. **mechanical**
 - b. perceptual
 - c. chemical
 - d. chronic

15. Bones, muscles, and tendons produce what type of pain?
- a. cutaneous
 - b. perceptual
 - c. **deep somatic**
 - d. visceral
16. Internal organs produce what type of pain?
- a. cutaneous
 - b. perceptual
 - c. deep somatic
 - d. **visceral**
17. "Vital signs" include:
- a. **heart rate, respiration rate, blood pressure, and body temperature**
 - b. heart rate, respiration rate, percussion, and body temperature
 - c. heart rate, cranial nerve tests, blood pressure, and body temperature
 - d. heart rate, respiration rate, blood pressure, and reflexes
18. The physical examination technique that involves striking the body to produce internal vibration is known as:
- a. palpation
 - b. auscultation
 - c. **percussion**
 - d. abdominal rigidity
19. Tests during a neurological screening examination involve all of the following EXCEPT:
- a. cranial nerves
 - b. motor function (myotomal)
 - c. deep tendon reflexes
 - d. **coordination and balance**
20. The process of using the signs, symptoms, and clinical examination to narrow down the possible conditions that a patient might be suffering from is referred to as:
- a. etiology
 - b. clinical presentation
 - c. pathomechanics
 - d. **differential diagnosis**
21. The subjective findings reported by a patient is called:
- a. sign
 - b. **symptom**
 - c. examination
 - d. diagnosis
22. The objective findings found by a clinician is called:
- a. **sign**
 - b. symptom
 - c. examination
 - d. diagnosis
23. Primary prevention interventions include all of the following EXCEPT:
- a. **self examination**
 - b. exercise
 - c. nutrition plans
 - d. education programs

24. The early detection or intervention of a disease state and to inhibit its proliferation is called:
- a. primary prevention
 - b. secondary prevention**
 - c. tertiary prevention
25. Pain characteristics to be asked as part of a history include all of the following EXCEPT:
- a. where?
 - b. when?
 - c. quality?
 - d. imaging?**
26. Shooting, stabbing, burning pain is characteristic of:
- a. vascular pain
 - b. neurogenic pain**
 - c. musculoskeletal pain
 - d. psychoemotional pain
27. Components of an organ (ie, heart/lung) exam include ALL of the following EXCEPT:
- a. inspection
 - b. percussion
 - c. palpation
 - d. diagnostic labs**
 - e. auscultation

Short Answer/Essay

1. Describe the difference between a sign and a symptom, and give 2 examples of each.
2. Explain the difference between diagnostic reasoning and clinical decision making.
3. Give 3 reasons why it is important for athletic trainers to be familiar with basic clinical pathology.
4. List and define the 3 stages of disease prevention. Give an example for each.
5. List 4 of the 5 components of the medical history, and give a brief description of each.
6. Name 3 “general illness” symptoms and 3 “key systemic symptoms,” including the systems with which those symptoms are associated.
7. What are red flags? Give 2 examples. (3 points)

CHAPTER 2

Pathophysiology

Multiple Choice

1. Replacement of one normal cell type by another normal cell type in a body tissue is called:
a. atrophy
b. hypertrophy
c. hyperplasia
d. metaplasia
2. The production of abnormal cells that have a highly increased rate of division is called:
a. atroplasia
b. **dysplasia**
c. hyperplasia
d. metaplasia
3. What causes pain during acute inflammation?
a. increased regional blood flow
b. tissue damage and chemical mediators
c. red blood cells in interstitial spaces
d. erythema and ecchymosis
4. When muscle tissue is damaged, it is replaced by:
a. muscle tissue
b. **collagen tissue**
c. chondral tissue
d. endothelial tissue
5. Homeostasis can best be described as:
a. maintenance of fluid, chemical, and energy values at exact levels
b. dynamic regulation of fluid, chemical, and energy balance
c. maintenance of blood glucose level
d. cellular mechanisms of disease and their functional consequences

6. Under normal circumstances, values for chemical (such as blood test results) and functional systemic measures (such as vital signs):
- a. **usually fluctuate within a range**
 - b. cannot be used to indicate state of health
 - c. only exceed normal when disease exists
 - d. is unrelated to age, gender, and genetics
7. "Pathophysiology" can best be described as:
- a. maintenance of fluid, chemical, and energy values at exact levels
 - b. dynamic regulation of fluid, chemical, and energy balance
 - c. maintenance of blood glucose level
 - d. **cellular mechanisms of disease and their functional consequences**
8. The cell structure that controls cell division and protein synthesis is the:
- a. **nucleus**
 - b. mitochondria
 - c. cytoplasm
 - d. lysosomes
9. The internal fluid environment of a cell is the:
- a. nucleus
 - b. mitochondria
 - c. **cytoplasm**
 - d. lysosomes
10. The cell structure that breaks down and disposes of cell waste is the:
- a. nucleus
 - b. mitochondria
 - c. cytoplasm
 - d. **lysosomes**
11. The cell structure that converts carbohydrate, protein, and fat to energy is the:
- a. nucleus
 - b. **mitochondria**
 - c. cytoplasm
 - d. lysosomes
12. Once cell damage occurs, the cell:
- a. dies
 - b. **dies or adapts**
 - c. adapts
 - d. mutates
13. Cells can be damaged by all of the following EXCEPT:
- a. physical trauma
 - b. deprivation of oxygen
 - c. **social factors**
 - d. infection
14. A decrease in cell size as a result of decreased metabolic demands is called:
- a. **atrophy**
 - b. hyperplasia
 - c. hypertrophy
 - d. metaplasia

15. An increase in cell number in a tissue, but without changes in rate of division, is called:
- a. atrophy
 - b. hyperplasia**
 - c. hypertrophy
 - d. metaplasia
16. The process of cell death from an inability to meet metabolic demands of the nucleus is called:
- a. malignancy
 - b. necrosis**
 - c. dysplasia
 - d. cancer
17. Which of the following types of cell adaptation is NEVER normal?
- a. hypertrophy
 - b. dysplasia**
 - c. metaplasia
 - d. hyperplasia
18. Which of the following is a general response to cell damage?
- a. inflammation**
 - b. malignancy
 - c. infection
 - d. metaplasia
19. Which order of events is correct for an acute inflammatory response following tissue damage?
- I. cells release chemicals
 - II. vasodilation
 - III. tissue ischemia
 - IV. fluids and proteins move into interstitial space
- a. I, II, III, IV
 - c. I, II, IV, III**
 - b. I, III, IV, II
 - d. II, IV, I, III
20. Which of the following is NOT a potential complication of chronic inflammation?
- a. increased fibrin and collagen production
 - b. prolonged leukocyte activity
 - c. increased tissue destruction
 - d. increased ecchymosis**
21. Hyperpnea, tachycardia, fatigue, and increased body temperature are signs of what condition?
- a. fever**
 - b. chronic inflammation
 - b. dysplasia
 - d. cancer

22. Infection of a bone causes what condition?
 - a. fracture
 - b. osteomyelitis**
 - c. osteochondritis
 - d. arthritis
23. Following a fracture in an adult, what is the minimal time before callus formation is complete?
 - a. 2 to 3 weeks
 - b. 8 to 12 weeks**
 - c. 4 to 6 weeks
 - d. 12 to 16 weeks
24. Which of the following components replaces damaged connective tissue?
 - a. collagen**
 - b. elastin
 - c. relaxin
 - d. expandin
25. Damaged muscle tissue is repaired with:
 - a. collagen**
 - b. elastin
 - c. normal muscle tissue
 - d. is not repaired
26. Loss of large amounts of blood from the vascular system is called:
 - a. contusion
 - b. hemorrhage**
 - c. epistaxis
 - d. hematoma
27. Signs of shock include:
 - a. pallor, hyperpnea, hypertension
 - b. tachycardia, hypertension, pallor
 - c. tachycardia, hypotension, pallor**
 - d. erythema, hypotension, dyspnea
28. The shrinkage of cells OR cells becoming less active in response to decreased demand is called:
 - a. hypertrophy
 - b. atrophy**
 - c. hyperplasia
 - d. metaplasia
29. The increase in the number of cells in tissue with NO change in rate of division/function is called:
 - a. hypertrophy
 - b. metaplasia
 - c. hyperplasia**
 - d. atrophy
30. Types of cellular dysplasia include:
 - a. hyperplasia and necrosis
 - b. necrosis and metaplasia
 - c. necrosis and apoptosis**
 - d. apoptosis and metaplasia
31. Stages of tissue healing include all of the following EXCEPT:
 - a. inflammatory phase
 - b. proliferative phase
 - c. revascularization phase**
 - d. remodeling phase

32. Which of the following types of tissue takes the LONGEST to heal:
- a. bone
 - b. nerve**
 - c. muscle
 - d. tendon
33. The part of the bone that provides nutrition and covers the surface is called:
- a. periosteum**
 - b. osteocytes
 - c. osteoblasts
 - d. osteoclasts
34. Callus formation in bone allowing a patient to weight bear happens in what stage:
- a. inflammatory phase
 - b. proliferative phase**
 - c. remodeling phase
35. All of the following are muscle types EXCEPT:
- a. skeletal
 - b. collagen**
 - c. cardiac
 - d. smooth

Short Answer/Essay

1. Briefly explain the concept of homeostasis.
2. Outline the process of acute inflammation.
3. Compare and contrast acute and chronic inflammation.
4. Explain the mechanism and effects of fever.
5. Name any 2 tissue types, methods of cell damage in those tissue types, and how the tissue responds to that damage.

CHAPTER 3

Pharmacology

Multiple Choice

- Which of the following substances appears to reduce the severity and duration of a cold (ie, runny nose and sore throat) if started within 24 hours of onset of these symptoms?
 - vitamin C
 - vitamin E
 - zinc**
 - iron
- Which of the following statements best describes the generic name for a drug?
 - refers to the chemical structure
 - proprietary
 - derived from the chemical name**
 - trade name
- Which of the following medications is administered enterally?
 - inhalers
 - topical ointments
 - tablets and capsules**
 - injections
- Which of the following classes of antihistamines is associated with the greatest amount of drowsiness?
 - first generation**
 - second generation
 - third generation
 - fourth generation
- Which of the following medications works as a decongestant?
 - Allegra
 - pseudoephedrine**
 - diphenhydramine
 - Claritin
- Which is the study of how the body absorbs, distributes, metabolizes, and eliminates drugs?
 - pharmacodynamics
 - pharmacokinetics**
 - bioavailability
 - pharmacology

7. Which of the following medications would be the best choice for treating an athlete complaining of a runny nose and itchy, watery eyes?
- a. pseudoephedrine
 - b. Claritin**
 - c. diphenhydramine
 - d. Allegra D
8. Which of the following medications has the greatest potency?
- a. ketoprofen (12.5 mg/tablet, 1 tablet every 4 to 6 hours)**
 - b. ibuprofen (200 mg/tablet, 2 tablets every 4 hours)
 - c. acetaminophen (500 mg/tablet, 2 tablets every 4 to 6 hours)
 - d. aspirin (325 mg/tablet, 2 tablets every 4 hours)
9. Which of the following drugs would most likely be taken by someone wanting to improve his or her performance during brief, high intensity exercise?
- a. hGH
 - b. creatine**
 - c. epoetin alfa
 - d. androstenedione
10. Which of the following classifications of controlled substances includes drugs with the least potential for addiction and abuse?
- a. Schedule I
 - b. Schedule II
 - c. Schedule III
 - d. Schedule IV**
11. Which of the following effects are associated with the use of hGH?
- I. increased body fat
 - II. decreased body fat
 - III. increased energy levels
 - IV. decreased immune system function
- a. I and III only
 - b. II and III only**
 - c. II, III and IV only
 - d. I and IV only
12. A drug's _____ refers to the amount of time needed to reduce the drug's concentration in the body to 50%?
- a. bioavailability
 - b. potency
 - c. dosage
 - d. half-life**
13. Which of the following performance-enhancing drugs has the ability to alter your source of fuel from carbohydrate to fat?
- a. erythropoietin
 - b. androgenic-anabolic steroids
 - c. corticosteroids
 - d. human growth hormone**
14. Which of the following performance-enhancing substances is associated with an increased production of estrogen?
- a. creatine
 - b. growth hormone
 - c. erythropoietin
 - d. androstenedione**