

Chapter 1. Inflammation and Healing

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ____ 1. When cells in the body are in a state of equilibrium with their environment they are said to be in:
 - a. balance.
 - b. transition.
 - c. homeostasis.
 - d. imbalance.

- ____ 2. Which type of cell/tissue necrosis (death) is typical of an infarct in the brain?
 - a. Caseous necrosis
 - b. Coagulative necrosis
 - c. Fat necrosis
 - d. Liquefactive necrosis

- ____ 3. Cells can change in response to injury or stimuli. Which of the following typifies an increase in size of the individual cells?
 - a. Atrophy
 - b. Hypertrophy
 - c. Hyperplasia
 - d. Metaplasia

- ____ 4. Which of the following is **NOT** one of the cardinal signs of inflammation?
 - a. Heat (calor)
 - b. Pain
 - c. Redness
 - d. Tremor

- ____ 5. Which of the following is **NOT** true regarding chronic inflammation?
 - a. May occur as a sequel to acute inflammation
 - b. May be the result of a prolonged healing process
 - c. May result in deposition of scar tissue
 - d. Must not be treated with heat

- ____ 6. The “C” in the acronym RICE stands for:
 - a. Chronic
 - b. Clean
 - c. Compression
 - d. Cool

- ____ 7. During the healing process, which of the following statements is **INCORRECT** regarding granulation tissue?
 - a. Granulation tissue is resilient to damage (not easily damaged).
 - b. Granulation tissue forms a series of red dots in the base of the healing wound.
 - c. The appearance of granulation tissue in a wound is a good sign that the wound is healing.
 - d. Granulation tissue is easily damaged.

- ____ 8. Which of the following scenarios is most likely to result in healing by second intention?
 - a. A 40-year-old woman sustains a knife wound to the finger while cutting vegetables. No stitches are necessary, and the wound heals well.
 - b. A 30-year-old man is attacked in the street by a woman holding a knife and sustains a deep

but straight knife wound to the forearm. He is treated at the local hospital. The wound is cleansed, and he receives six stitches in the wound. The man is discharged home to return in 10 days for removal of the stitches.

- c. A 60-year-old woman has a total hip replacement. Her surgical incision heals well, and her staples are removed after 10 days when the wound has already closed.
- d. A 60-year-old woman with diabetes has an open wound on her lower leg as a result of poor venous circulation. She is treated in physical therapy. The wound is cleansed using the pulsatile lavage unit, and a dressing is applied before she returns home.

- _____ 9. Scar tissue is a natural effect of wound healing. However, some types of scarring can cause problems. Which of the following terms applies to a scar that forms far beyond the margins of the original wound?
- a. Adhesions
 - b. Cirrhosis
 - c. Hypertrophic scarring
 - d. Keloid scarring
- _____ 10. All of the following procedures can assist in the prevention of pressure ulcers (decubiti) **EXCEPT**:
- a. moving a person who is immobile up the bed using a draw sheet, allowing the buttocks to drag on the bed.
 - b. changing bed sheets frequently to prevent moisture from sweat, urine, and wound exudate.
 - c. making sure the patient is turned onto different parts of the body at least every 2 hours.
 - d. inspecting the skin regularly to ensure no reddened areas are present.
- _____ 11. All of the following physical therapy methods may be used to débride a wound **EXCEPT**:
- a. pulsatile lavage.
 - b. ultrasound.
 - c. whirlpool.
 - d. wet-to-dry dressings.
- _____ 12. Pain is the body's natural way of warning about a potential problem. Referred pain is:
- a. the type of pain experienced with a bruise caused by being hit with a baseball bat.
 - b. the type of pain experienced over the area of a small burn sustained from an oven when cooking.
 - c. the type of pain felt within the area of skin supplied by the same nerve root as that supplying the injured area.
 - d. the type of pain experienced when pricking the finger when sewing.

True/False

Indicate whether the statement is true or false.

- _____ 13. Pain receptors triggered by a stimulus send signals along A-delta fibers, which are myelinated and thus transmit at a fast rate.
- _____ 14. The Gate Control Theory is a theory directly associated with inflammation.
- _____ 15. Cultural differences can affect the way individuals perceive pain.
- _____ 16. Pain is an objective phenomenon.
- _____ 17. Eschar is a type of healing tissue that leads to the final phase of healing of a wound.

- _____ 18. Acute on chronic inflammation occurs when an injury never fully heals and the area is reinjured. This type of inflammation is often observed in the physical therapy clinic.
- _____ 19. Polymorphonucleocytes, eosinophils, and macrophages are all cells involved in the inflammatory response and are phagocytes (amoeba-like).
- _____ 20. Metaplasia is the term used for an increase in cell size within an organ or tissue.

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Answer Section

MULTIPLE CHOICE

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|------------|--------|--------------|
| 1. ANS: C | PTS: 1 | REF: Page 4 |
| 2. ANS: D | PTS: 1 | REF: Page 7 |
| 3. ANS: B | PTS: 1 | REF: Page 8 |
| 4. ANS: D | PTS: 1 | REF: Page 9 |
| 5. ANS: D | PTS: 1 | REF: Page 12 |
| 6. ANS: C | PTS: 1 | REF: Page 14 |
| 7. ANS: A | PTS: 1 | REF: Page 18 |
| 8. ANS: D | PTS: 1 | REF: Page 15 |
| 9. ANS: D | PTS: 1 | REF: Page 19 |
| 10. ANS: A | PTS: 1 | REF: Page 20 |
| 11. ANS: B | PTS: 1 | REF: Page 22 |
| 12. ANS: C | PTS: 1 | REF: Page 26 |

TRUE/FALSE

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| 13. ANS: T | PTS: 1 | REF: Page 26 |
| 14. ANS: F | PTS: 1 | REF: Page 27 |
| 15. ANS: T | PTS: 1 | REF: Page 28 |
| 16. ANS: F | PTS: 1 | REF: Page 28 |
| 17. ANS: F | PTS: 1 | REF: Page 21 |
| 18. ANS: T | PTS: 1 | REF: Page 12 |
| 19. ANS: T | PTS: 1 | REF: Pages 10–12 |
| 20. ANS: F | PTS: 1 | REF: Page 9 |