

## Chapter 15

1. Hypothermia occurs when:
  - A) heat gained exceeds heat lost.
  - B) heat lost exceeds heat gained.
  - C) air temperature exceeds body temperature.
  - D) air temperature drops below body temperature.
  
2. Hyperthermia occurs when:
  - A) heat gained exceeds heat lost.
  - B) heat lost exceeds heat gained.
  - C) air temperature exceeds body temperature.
  - D) air temperature drops below body temperature.
  
3. What is the process by which a person loses body heat to cooler ambient air?
  - A) radiation
  - B) constriction
  - C) conduction
  - D) evaporation
  
4. When a person's body temperature falls below normal, it is called:
  - A) cold exposure.
  - B) mammalian reflex.
  - C) hypothermia.
  - D) hypoperfusion.
  
5. In a hypothermic patient, pulses should be checked for how long before starting CPR?
  - A) 30 seconds
  - B) 5 minutes
  - C) several minutes
  - D) 1 minute
  
6. Where should you place the back of your hand when checking for skin temperature on a patient experiencing a cold emergency?
  - A) neck
  - B) hand
  - C) forehead
  - D) back

7. Which of the following is NOT a factor leading to hypothermia?
- A) drugs
  - B) excessive clothing
  - C) cold environment
  - D) injuries to the spinal cord
8. What is the first sign of hypothermia?
- A) shivering
  - B) drowsiness
  - C) speech difficulty
  - D) loss of coordination
9. Which of the following steps should NOT be taken in treating a patient with deep localized cold injuries?
- A) Remove all jewelry.
  - B) Leave all blisters intact.
  - C) Allow the area to slowly thaw.
  - D) Cover the area with dry, sterile dressings.
10. Which of the following is NOT a late sign of a deep localized cold injury?
- A) The skin remains soft.
  - B) The skin is white and waxy.
  - C) Blisters are present.
  - D) Swelling is present.
11. In a wilderness situation or when an extremely long or delayed transport is inevitable, you should treat a deep localized cold injury by:
- A) re-exposing the part to the cold.
  - B) rubbing the affected part with alcohol.
  - C) immersing the affected part in an ice-water bath.
  - D) immersing the affected part in a warm-water bath.
12. Localized cold injuries do NOT tend to occur on the:
- A) ears.
  - B) nose.
  - C) abdomen.
  - D) extremities.

13. High air temperature reduces the body's ability to lose heat by:
- A) radiation.
  - B) convection.
  - C) conduction.
  - D) evaporation.
14. High humidity reduces the body's ability to lose heat through:
- A) radiation.
  - B) convection.
  - C) conduction.
  - D) evaporation.
15. When exercising in hot weather, a person may lose how many liters of sweat per hour?
- A) 1
  - B) 2
  - C) 3
  - D) 4
16. When the body loses sweat, it also loses:
- A) plasma.
  - B) nutrients.
  - C) electrolytes.
  - D) carbonic acid.
17. A true heat exposure emergency exists if the skin is:
- A) blanching and dry.
  - B) hot to the touch and dry.
  - C) mottling, tingling, and dry.
  - D) normal temperature and moist.
18. Your care for a patient with moist, pale skin and normal to cool skin temperature in the context of a hot environment should include:
- A) keeping the skin wet with alcohol.
  - B) massaging the body to increase blood flow.
  - C) applying cold packs to the neck, groin, and armpits.
  - D) having the patient drink water if the patient is responsive and not vomiting.

19. Your care for a patient with hot, dry skin should include:
- A) putting the patient in a sitting position.
  - B) massaging the body to increase blood flow.
  - C) cooling the patient rapidly to cause shivering.
  - D) applying cold packs to the neck, groin, and armpits.
20. Any drowning of unknown origin should be treated as a(n):
- A) stroke.
  - B) air embolism.
  - C) possible spinal injury.
  - D) cold water immersion.
21. Which of the following conditions will typically be present with a rapidly rising body temperature?
- A) heat cramps
  - B) heat exhaustion
  - C) heat prostration
  - D) heatstroke
22. Care of a patient with a heat-related emergency should include:
- A) add clothing to protect the patient.
  - B) removing the patient from the hot environment.
  - C) assisting the patient while he or she walks off the cramps.
  - D) giving a concentrated electrolyte solution while supine.
23. Proper care of a patient with hypothermia should include:
- A) removing the patient from the cold environment.
  - B) rewarming the patient's extremities in the field with hot packs.
  - C) giving oxygen from a tank packed in snow.
  - D) beginning CPR immediately.
24. You are called to the scene of a possible diving accident at a local pool. You suspect a spinal injury. The patient should be removed from the water with a:
- A) Sager splint.
  - B) Stokes' basket.
  - C) short backboard.
  - D) long backboard.

25. Mild hypothermia occurs with core body temperatures of:
- A) 90–95°F.
  - B) 85–90°F.
  - C) 80–85°F.
  - D) 75–80°F.
26. Severe hypothermia occurs with core body temperatures of:
- A) 90–95°F.
  - B) 85–90°F.
  - C) 95–98°F.
  - D) 75–80°F.
27. An early sign of severe hypothermia is when:
- A) pulse and respirations increase at rest.
  - B) shivering stops.
  - C) lethargy and apathy begin.
  - D) the patient becomes pulseless.
28. You are caring for a 44-year-old female who has been drinking beer all day at an outdoor summer concert. Your focused history and exam reveal hot, dry skin; a weak, rapid pulse; and a decreased level of consciousness. Care of this patient includes:
- A) covering her with a single dry sheet.
  - B) giving her a weak electrolyte drink.
  - C) administering oxygen with a nonrebreathing mask.
  - D) rapid cooling of the patient until she starts to shiver.
29. Emergency care objectives for cold-related problems include:
- A) preventing further heat loss.
  - B) warming the shell in advance of the core.
  - C) “load and go” to medical assistance.
  - D) allowing the patient to walk in order to increase internal heat production.
30. To allow the victim to reach the shore, or a rescuer to safely reach a victim who has broken through an icecovered body of water, the rescue should:
- A) be undertaken immediately with as many rescuers as possible.
  - B) be undertaken only if the rescuer is wearing a wet suit or full exposure suit.
  - C) be performed so that weight is widely distributed over the ice surface.
  - D) always involve helicopter assistance.

31. The emergency care of superficial frostbite is to:
- A) rapidly rewarm the affected part in a waterbath that has a temperature of 102–108° F.
  - B) apply direct body heat, no warmer than normal body temperature.
  - C) open any blisters that may have formed.
  - D) wrap the affected part in sterile dry dressings and immobilize.
32. The proper emergency care for deep frostbite is to:
- A) apply direct body heat, no warmer than normal body temperature.
  - B) wrap the affected part in sterile, dry dressings and immobilize it.
  - C) rapidly rewarm the affected part in a water bath that has a temperature of 102–108° F.
  - D) open any blisters that may have formed.
33. The temperature of water used to rewarm a frostbite injury should be \_\_\_\_\_ ° F.
- A) 98.6
  - B) 98.6 to 99.9
  - C) 100 to 101.9
  - D) 102 to 108
34. Symptoms of superficial frostbite are that the exposed skin:
- A) becomes red and swollen.
  - B) takes on a yellowish appearance and becomes numb.
  - C) becomes bluish and bleeds readily with rough handling.
  - D) is cold, solid, and wooden.
35. In severe hypothermia:
- A) ventricular fibrillation is a strong possibility.
  - B) no emergency care is appropriate as the patient will probably die.
  - C) the patient should be encouraged to lie down to conserve heat.
  - D) layer clothing on the patient's hands and feet.
36. Possible complications of hypothermia include:
- A) consciousness.
  - B) gray, yellowish skin.
  - C) ventricular fibrillation and serious metabolic imbalance.
  - D) shivering.

37. Submersion hypothermia is usually:
- A) secondary.
  - B) subacute.
  - C) chronic.
  - D) acute.
38. If there is not enough manpower available to carry a person with a frozen foot:
- A) wrap the foot for protection and help the patient hop to a care facility.
  - B) leave the patient there and go for help.
  - C) let the patient walk to a care facility on the frozen foot.
  - D) warm the foot rapidly, then have the patient walk, and protect the foot from freezing.
39. The temperature at which a patient moves from mild to profound hypothermia is:
- A) 95 ° F.
  - B) 90 ° F.
  - C) 85 ° F.
  - D) 80 ° F.
40. Which of the heat illnesses is a true medical emergency?
- A) heat exhaustion
  - B) heat stroke
  - C) heat cramps
  - D) heat syncope
41. The usual signs of heat stroke are:
- A) dry skin, nausea, normal body temperature.
  - B) wet skin, rapid pulse; high temperature.
  - C) hot skin, rapid pulse, high body temperature.
  - D) pale, wet skin; nausea; normal body temperature.
42. What weather conditions are likely to contribute to the development of heat stroke?
- A) high temperature and low humidity
  - B) high temperature and humidity
  - C) moderate temperature and high humidity
  - D) moderate temperature and low humidity

43. In case of heat stroke or high fever, the first act that should be taken is:
- A) give sips of salted water.
  - B) cool the body by any means.
  - C) treat for shock.
  - D) give the patient aspirin.
44. In heat exhaustion, the body temperature is:
- A) normal, or slightly elevated.
  - B) below normal.
  - C) extremely high.
  - D) variable from patient to patient.
45. Snowblindness is:
- A) the result of frostbitten eyelids.
  - B) the freezing of moisture built up on the eyelashes.
  - C) sunburn of the conjunctiva of the eye.
  - D) a momentary condition caused by the reflection of the sun off the snow.
46. Snowblindness:
- A) is apparent immediately after exposure to the sun and snow.
  - B) is cared for by using warm compresses.
  - C) causes irritation, which may feel like sand in the eyes.
  - D) will occur only in the higher elevations.
47. Treat windburn with:
- A) cold.
  - B) darkness.
  - C) greasy ointments.
  - D) oxygen.
48. A patient with acute mountain sickness (AMS) who is unable to walk should be carried in which position?
- A) supine
  - B) prone
  - C) sitting
  - D) semiprone

49. What position is preferred for someone with high altitude cerebral edema (HACE) or high altitude pulmonary edema (HAPE)?
- A) head downhill
  - B) lateral recumbent
  - C) sitting
  - D) supine
50. Treatment for acute mountain sickness is:
- A) rapid descent to a lower altitude.
  - B) give fluids and advise rest.
  - C) oxygen in high concentration.
  - D) both A and C.
51. Early signs and symptoms of high altitude pulmonary edema include a dry cough, respiratory distress, mild chest pain, and:
- A) ataxia.
  - B) paralysis.
  - C) convulsions.
  - D) weakness.
52. Skiers are more likely to be affected by solar radiation to the skin and eyes because:
- A) of high density filtration at high altitude.
  - B) cold temperatures mask the burning that is occurring.
  - C) PABA is effective only near sea level.
  - D) of the thin, clear atmosphere at high altitudes.
53. Snowblindness occurs:
- A) within an hour after the exposure.
  - B) 2 to 4 hours after the exposure.
  - C) 6 to 12 hours after the exposure.
  - D) 12 to 18 hours after the exposure.
54. Signs and symptoms of early acute mountain sickness include:
- A) cyanosis, hunger, red eyes, headache.
  - B) headache, hunger, nausea, cyanosis.
  - C) red eyes, fatigue, inability to sleep, cyanosis.
  - D) fatigue, headache, inability to sleep, nausea.

55. Resuscitation procedures should be started on the avalanche victim with no respiration:
- A) by inserting an air tube into the snow at the site where the patient is suspected to be trapped.
  - B) while the patient is being transported to safety.
  - C) when oxygen is available.
  - D) as soon as the patient's head is uncovered.
56. The first thing the rescuer will likely have to do first after uncovering a buried avalanche victim is:
- A) give CPR.
  - B) examine for trauma.
  - C) clear the airway.
  - D) start rescue breathing.

## Answer Key

1. B
2. A
3. A
4. C
5. C
6. D
7. B
8. A
9. C
10. A
11. D
12. C
13. A
14. D
15. A
16. C
17. B
18. D
19. D
20. C
21. D
22. B
23. B
24. D
25. A
26. B
27. B
28. C
29. A
30. C
31. B
32. C
33. D
34. B
35. A
36. C
37. D
38. D
39. B
40. B
41. C
42. B
43. B
44. A

- 45. C
- 46. C
- 47. C
- 48. C
- 49. C
- 50. D
- 51. D
- 52. D
- 53. C
- 54. D
- 55. D
- 56. C