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## CHAPTER 5: AUTOMATED EXTERNAL DEFIBRILLATION

### Multiple Choice

Circle the correct answer.

1. **An electrical shock delivered to the heart to correct certain life-threatening heart rhythms is called—**
    - a. Asystole.
    - b. Diastole.
    - c. Fibrillation.
    - d. Defibrillation.
  2. **It is important for everyone to “stand clear” before using an AED to deliver a shock because—**
    - a. The victim’s arm may swing out and strike you when the shock is delivered.
    - b. The AED will not work unless you stand clear.
    - c. You or someone else could get shocked.
    - d. The AED may not deliver the correct shock to the victim.
  3. **Early defibrillation is an important step in the Cardiac Chain of Survival for all of the reasons below EXCEPT—**
    - a. Asystole cannot be corrected by defibrillation.
    - b. Most victims of sudden cardiac arrest need an electrical shock called defibrillation
    - c. Each minute that defibrillation is delayed reduces the chance of survival by about 10 percent.
    - d. Advanced medical personnel can transport the victim to the hospital more quickly.
  4. **After confirming that a victim has no pulse and is not moving or breathing, and an AED is available, the next step is—**
    - a. Turn on the AED.
    - b. Plug the connector into the AED and attach the pads to the victim’s chest.
    - c. Let the AED analyze the heart rhythm or push the button marked “analyze.”
    - d. Deliver a shock if one is indicated after ensuring that no one is touching the victim and there are no hazards present.
  5. **When using an AED—**
    - a. Dry the victim’s chest thoroughly using alcohol and gauze pads.
    - b. Remove any patch you see on the victim’s chest.
    - c. Check for pulse while the device is delivering a shock.
    - d. Place the victim on his or her side.
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- 6. The pads of an AED for an adult should be placed—**
- On the upper right chest and lower left side.
  - On the lower right side and upper left chest.
  - On the lower right chest and lower left side.
  - On the upper right and upper left side of the chest.
- 7. After the initial analysis, if the AED prompt indicates that “no shock is advised,” the next step is to—**
- Restart the AED.
  - Look for movement and recheck for breathing and a pulse.
  - Begin rescue breathing.
  - Begin CPR for 5 cycles (about 2 minutes).
- 8. If using an AED on a victim who was removed from the water all of the following are important EXCEPT—**
- Making sure there are no puddles of water around you, the victim or the AED.
  - Drying the victim’s chest.
  - Removing wet clothing for proper pad placement if necessary.
  - Drying the victim’s feet and legs.
- 9. When using an AED on a victim with a pacemaker or implanted cardiac device—**
- Place the pad directly over the implanted cardiac device.
  - Adjust pad placement if necessary.
  - Reverse the position of the pads on the victim’s chest.
  - An AED cannot be used if the victim has an implanted cardiac device.
- 10. When using an AED on a child, complete all of the following steps EXCEPT—**
- Use pediatric AED pads.
  - Make sure the pads are not touching.
  - If the pads are touching, place one pad on the child’s chest and the other pad on the child’s back.
  - Place both AED pads on the child’s abdomen just above the navel.

## **Multiple Answers**

**Place a check next to the correct answer or answers.**

- 11. An AED with appropriate pediatric pads may be used on children who are—**
- Victims of trauma.
  - Conscious but having chest pain.
  - In a pool.
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**12. An AED may be used on—**

- Victims of hypothermia in cardiac arrest.
- Victims of trauma in cardiac arrest.
- Victims with a pacemaker who are in cardiac arrest.
- Victims on the stairs who are in cardiac arrest.

**True or False**

Circle True or False.

13. True    False    Since a child's chest may be small, it is alright to defibrillate if the pads touch each other when placed on the chest.
14. True    False    It is correct to place one pad on the child's back if the pads touch each other on the child's chest.
15. True    False    It is important not to delay defibrillation when taking steps to provide for a dry environment.

**Fill in the Blanks**

16. Most victims of sudden cardiac arrest need an electrical shock called \_\_\_\_\_
17. Advise all rescuers and bystanders to “\_\_\_\_\_” when analyzing or shocking the victim.
18. Do not \_\_\_\_\_ or \_\_\_\_\_ the victim while the AED is analyzing.
19. After the second analysis, if the AED tells the rescuer “no shock advised,” he or she should \_\_\_\_\_.
20. An AED equipped with pediatric AED pads is capable of delivering levels of energy to a child between \_\_\_\_\_ and \_\_\_\_\_ years of age and weighing less than \_\_\_\_\_ pounds.
21. \_\_\_\_\_ is an electrical shock that interrupts the heart's chaotic electrical activity, which can restore the heart's ability to function as a pump.
22. \_\_\_\_\_ is an abnormal heart rhythm characterized by a state of totally disorganized electrical activity of the heart, resulting in a quivering of the ventricles. In this state, the ventricles cannot pump blood and there is no movement, breathing or pulse.
23. \_\_\_\_\_ is an abnormal heart rhythm characterized by very rapid contraction of the ventricles. Although there is electrical activity resulting in a regular rhythm, the rate is often too fast to allow the heart to pump blood properly.

**Circle the Correct Answer from the Pair**

24. The incidence of cardiac arrest in children is relatively (high/low) compared to adults.
25. Cardiac arrest resulting from ventricular fibrillation (does/does not) happen to young children.
26. Most cardiac arrests in children (are/are not) sudden.
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## **Short Answer**

27. List in correct order the four links in the Cardiac Chain of Survival.
28. Name three of the most common causes of cardiac arrest in children.
29. List in correct order the seven steps you must follow to defibrillate a victim using an AED after advance medical personnel have been summoned.
30. List three situations in which traumatic injuries or accidents may be the cause of sudden cardiac arrest in children.
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- 31. What five steps would you take to use an AED on a drowned victim who has no pulse and is not moving or breathing?**
- 32. What should you do before using an AED on a victim who is wearing a nitroglycerin patch?**
- 33. What might a rescuer notice or feel beneath the skin in the chest or collarbone area of a victim of cardiac arrest?**
- 34. You are providing care for a victim of a nonfatal submersion resulting from an ice-fishing accident. You note that the victim is suffering from hypothermia. List five important points to remember while providing care.**
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