Summary of High-Quality CPR Components for BLS Providers

American Heart Association.

Component	Adults and adolescents	Children (age 1 year to puberty)	Infants (age less than 1 year, excluding newborns)
Verifying scene safety	Make sure the environment is safe for rescuers and victim		
Recognizing cardiac arrest	Check for responsiveness No breathing or only gasping (ie, no normal breathing) No definite pulse felt within 10 seconds (Breathing and pulse check can be performed simultaneously in less than 10 seconds)		
Activating emergency response system	***If a mobile device is available, phone emergency services (9-1-1)***		
	If you are alone with no mobile phone, leave the victim to activate the emergency response system and get the AED before beginning CPR Otherwise, send someone and begin CPR immediately; use the AED as soon as it is available	***Witnessed collapse*** Follow steps for adults and adolescents on the left ***Unwitnessed collapse*** Give 2 minutes of CPR Leave the victim to activate the emergency response system and get the AED Return to the child or infant and resume CPR; use the AED as soon as it is available	
Compression-ventilation ratio *without advanced airway*	***1 or 2 rescuers*** 30:2	***1 rescuer*** 30:2 ***2 or more rescuers*** 15:2	
Compression-ventilation ratio *with advanced airway*	Continuous compressions at a rate of 100-120/min Give 1 breath every 6 seconds (10 breaths/min)	Continuous compressions at a rate of 100-120/min Give 1 breath every 2-3 seconds (20-30 breaths/min)	
Compression rate	100-120/min		
Compression depth	At least 2 inches (5 cm)*	At least one third AP diameter of chest Approximately 2 inches (5 cm)	At least one third AP diameter of chest Approximately 1½ inches (4 cm)
Hand placement	2 hands on the lower half of the breastbone (sternum)	2 hands or 1 hand (optional for very small child) on the lower half of the breastbone (sternum)	***1 rescuer*** 2 fingers or 2 thumbs in the center of the chest, just below the nipple line ***2 or more rescuers*** 2 thumb–encircling hands in the center of the chest, just below the nipple line If the rescuer is unable to achieve the recommended depth, it may be reasonable to use the heel of one hand
Chest recoil	Allow complete recoil of chest after each compression; do not lean on the chest after each compression		
Minimizing interruptions	Limit interruptions in chest compressions to less than 10 seconds with a CCF goal of 80%		

*Compression depth should be no more than 2.4 inches (6 cm).
Abbreviations: AED, automated external defibrillator; AP, anteroposterior; CCF, chest compression fraction; CPR, cardiopulmonary resuscitation.

BLS Healthcare Provider Study Guide for Written Test

1. The ratio for 1 rescuer infant CPR is 30 compressions to 2 breaths
2. If a victim is immersed in water, pull the victim out of the water and quickly wipe the chest dry before attaching the AED
3. Two rescuers alternate giving high quality chest compressions
4. Two rescuers alternate the compressor role every 2 minutes to avoid fatigue
5. Agonal gasps are not considered normal breathing and are signs of cardiac arrest, you should immediately begin CPR if there is no pulse
6. Defibrillation is important because it can restore a regular cardiac rhythm
7. As soon as an AED is available, the first step is to turn on the AED
8. After the AED pads are attached the next step is to follow the AED prompts
9. During a resuscitation attempt, clear roles and responsibilities should be defined as soon as possible by the team leader this will help a team function more smoothly
10. Each team member should know their limits and ask for help before a resuscitation worsens
11. If a victim of a foreign body airway obstruction becomes unresponsive, the rescuer should start CPR, beginning with chest compressions
12. The depth of chest compressions for an adult is at least one third the depth of the chest, about 2 inches (5cm)
13. A victim who is unresponsive, is not breathing, and has no pulse requires high-quality CPR to improve their chance of survival
14. The rate of performing chest compressions is 100 to 120 per minute
15. An AED can help eliminate an abnormal heart rhythm and restore a regular heart rhythm
16. AED pads may not stick to a hairy chest making it difficult to analyze and deliver a shock
17. If a victim has no pulse and not breathing normal, performing high-quality CPR has been shown to improve a victim's chances of survival
18. The depth of chest compressions for a child is at least one third the depth of the chest, about 2 inches (5cm)
19. Allowing complete chest recoil between compressions allows blood to flow into the heart and refill between compressions
20. When performing CPR on an unresponsive choking victim you should look for the obstructing object each time you open the airway
21. The best action to relieve severe choking in a responsive infant is to begin cycles of 5 back slaps, followed by 5 chest thrusts
22. If a choking infant becomes unresponsive, stop giving back slaps and begin CPR, and look in the mouth for the obstructing object each time you open the airway
23. In 2 person rescuer CPR , The rescuers should switch positions about every 2 minutes to avoid fatigue
24. If you notice the person giving chest compressions is not allowing complete chest recoil, tell the compressor you notice decreased chest recoil and make corrective actions
25. Rescuers should observe the chest rise when providing effective breaths