

Heartsaver CPR/AED & First Aid

Study Reference / 2020 AHA Guidelines



Summary Table - Components of High-Quality CPR

Component	Adults Including Adolescents	Children Age 1 year to Puberty	Infants Under 1 year except Newborns
Verifying Scene Safety	Make sure the environment is safe for rescuers and victim		
Recognizing Cardiac Arrest	1. Check for responsiveness (any purposeful response rules out a CPR situation) 2. Check for Normal Breathing (gaspings is not normal breathing)		
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 EMS and get the AED before starting CPR, Otherwise. send someone and begin CPR immediately; use the AED as soon as it is available	Witnessed Collapse and alone Follow the same steps for adults and adolescents on the left Unwitnessed Collapse and alone Do 2 minutes of CPR before activating EMS and getting AED Return to the child or infant and resume CPR; use the AED as soon as it is available Always multitask and call 911 on speaker if cell is available	
Compression Rate	100-120/min for all ages and situations / Use a song such as “Staying Alive” to keep tempo		
Compression Depth	At least 2 inches*	At least one third AP diameter of chest Approximately 2 Inches on children and 1.5 Inches on infants	
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)	2 fingers or 2 thumbs in the center of the chest. just below the nipple line or 2 thumb-encircling hands
Chest Recoil	Allow complete recoil of chest after each compression to allow for blood to return to the heart between compressions; 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%		

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High Quality CPR

General Concepts

- All Victims: Compress at a **rate** of 100 to 120/min
- Interruptions in Compressions: Should always be less than **10 seconds**
- Allow for **complete chest recoil** between compressions and avoid leaning on chest between compressions
- **Switch rescuers** about every 2 minutes or sooner to avoid fatigue
- Avoid excessive ventilation, delivering breaths over 1 second that produce visible chest rise
- Performing high quality CPR is most likely to positively impact victim's survival
- Gasp are not normal breathing

Compressions

- If alone, ratio for compressions to breaths is always 30 compressions to 2 breaths for all ages
- Depth of compression for an **INFANT**, at least **one third the depth of the chest**, about 1 1/2 inches (4 cm)
- Depth of compression for a **CHILD**, at least **one third the depth of the chest**, about 2 inches (5 cm)
- Depth of compression for an **ADULT** is at least 2 inches (5 cm)
- Rate of chest compressions for **everyone** is 100 to 120 per minute with complete chest recoil

Breaths

- Confirm breaths are effective **by observing for chest rise** with breath
- Breaths should be delivered gently, over **1 second each**

AED Use

- An AED cannot be used on anyone submerged in water
- If a victim has a hairy chest, the pads might not stick to the victim
- The purpose of an AED is to convert an irregular heart rhythm to a normal rhythm
- Make sure to turn it on as soon as it arrives
- Since all AEDs are different, always just follow the AED prompts

Choking (foreign body obstruction)

- **ANY** victim, any age, that becomes unresponsive due to choking (obstruction), immediately start CPR starting with compressions
- When performing CPR on an unresponsive choking victim, make one modification, when giving breaths, check the airway for the obstructing item
- On a responsive choking adult or child, perform abdominal thrusts
- On a responsive choking infant, perform sets of 5 back slaps and 5 chest thrusts