

American Heart Association (AHA)

Heartsaver AED

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- This slide series is intended for the student to review and become familiar with.
- After the student feels somewhat comfortable with the material they should attend one of the hands on testing dates.
- There is not a written test.
- Passing and receiving a CPR card is dependent on the student passing the hands on testing date.

1 Rescuer CPR for Adults

- 1 - Check for scene safety.
- 2 - Check for responsiveness.
- 3 - If no response ACTIVATE EMS and get an AED.
- A - Open the Airway (head-tilt-chin-lift or Jaw thrust) Look, Listen, Feel for breath (5 - 10 secs).
- B - Give 2 breaths (give enough breath to make the chest rise).***remember to pinch the nose.
- Start CPR 30 compressions and 2 breaths at a rate of 100 compressions per min.

2 Rescuer CPR for Adults

- 1 - Check for scene safety.
- 2 - Check for responsiveness.
- 3 - If no response, SECOND responder ACTIVATE EMS and get an AED.
- A - FIRST responder, Open the Airway (head-tilt-chin-lift or Jaw thrust) Look, Listen, Feel for breath (5 - 10 secs).
- B - Give 2 breaths (give enough breath to make the chest rise).***remember to pinch the nose.
- Start CPR 30 compressions and 2 breaths at a rate of 100 compressions per min.
- When SECOND responder returns, FIRST responder performs chest compressions and SECOND responder performs breaths with a ratio of 30:2.
- Every 5 cycles responders should switch roles.

1 Rescuer CPR for Children 1 to Age of Puberty

- 1 – Check for scene safety.
- 2 – Check for responsiveness.
- 3 – If no response SHOUT for help, send someone to ACTIVATE EMS and get an AED.
- A – Open the Airway (head-tilt-chin-lift or jaw thrust)
Look, Listen, Feel for breath (5 – 10 secs).
- B – Give 2 breaths (give enough breath to make the chest rise).***remember to pinch the nose.
- Start CPR 30 compressions and 2 breaths at a rate of 100 compressions per min.
- Compression is different than adult. One hand on chest and one hand on forehead.
- After 5 cycles of 30:2 if alone ACTIVATE the EMS and get the AED.



While pushing on
back on the forehead,
use your other hand
to lift the chin forward





Place your mouth
over the victim's
mouth and exhale





1 Rescuer CPR for Infants

- 1 – Check for scene safety.
- 2 – Check for responsiveness.
- 3 – If no response SHOUT for help, send someone to ACTIVATE EMS and get an AED.
- A – Open the Airway (head-tilt-chin-lift or jaw thrust)
Look, Listen, Feel for breath (5 – 10 secs). The head is in a SNIFFING position.
- B – Give 2 breaths (give enough breath to make the chest rise).***remember to place your mouth around the nose and mouth.
- Start CPR 30 compressions and 2 breaths at a rate of 100 compressions per min.
- After 5 cycles of 30:2 if alone ACTIVATE the EMS and get the AED



Tilt the infant's head back, cover nose and mouth with your mouth and exhale into the infant's mouth.



Keeping the infant's head tilted back, place two fingers on the breastbone and give five quick downward thrusts.

(AED) Automated External Defibrillator

- When AED arrives, place it at the victims side, next to the responder using it.
- POWER – POWER on the AED.
- ATTACH – ATTACH the pads to the victim, then attach to AED.
- ANALYZE – Clear the victim and ANALYZE the rhythm, by pressing the analyze button.
- SHOCK – If the AED advises a shock, Clear the victim and press the SHOCK button.
- CPR – After AED gives the shock, begin CPR beginning with chest compressions.
- RE-ANALYZE – After 2 minutes of CPR, press ANALYZE on AED
- Special situations.
- Un-witnessed out of hospital cardiac arrest in children, perform 5 cycles (2 mins) of CPR before using the AED.
- Use adult pads on victims aged 8 and Older.
- Use specialized pediatric pads on victims aged 1 to 8.
- Currently no evidence to recommend for AED use on infants aged 1 or less.
- If victim is an adult and a victim because of drowning, give 5 cycles of CPR (2 mins) before activating EMS and using the AED.

Relief of Choking in the Adult and Child

- Ask the victim "Are you choking?" if the victim nods yes
- Ask the victim "Can I Help?" if the victim nods yes
- Position yourself behind the victim (standing for adult, kneeling for child) place one fist turned up with the thumb against the abdomen. The other hand clasp the first fist.
- Thrust inward and upward with enough force to expel the object.
- Continue to thrust until the object is expelled or the victim becomes unresponsive.
- If the object is expelled have the victim see a healthcare professional for further evaluation.
- If the Adult victim becomes unresponsive, **ACTIVATE** the EMS get an AED. Open the airway and remove the object if you see it, then begin CPR. Check the Airway every time before giving breaths during CPR.
- If the Child victim becomes unresponsive, Open the airway, remove the object if you see it, and begin CPR. After 5 cycles (2 min) **ACTIVATE** the EMS and get an AED. Check the Airway every time before giving breaths during CPR.

Cover your fist with your other hand and thrust up and in with sufficient force to lift the victim off his feet



Place one fist just above the child's navel with the thumb side facing the abdomen



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Do not thrust hard enough to lift the child off his feet



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Relief of Choking in the Infant.

- Signs of Severe Airway Obstruction
- poor / no air exchange.
- weak ineffective cough / no cough at all.
- turning blue around mouth.
- Knell / sit with infant in your lap
- 5 back thrusts, 5 chest thrusts, continue until object is expelled or infant becomes unresponsive.
- If object is expelled take infant to a Healthcare provider for further evaluation.
- If object is not expelled and infant becomes unresponsive, Open the airway, remove the object if you see it, and begin CPR. After 5 cycles (2 mins) **ACTIVATE** the EMS. Check the Airway every time before giving breaths during CPR.

Place the infant stomach-down across your forearm and give five thumps on the infant's back with heel of your hand



Place two fingers in the middle of the infant's breastbone and give five quick downward thrusts



TABLE 2. Summary of BLS ABCD Maneuvers for Infants, Children, and Adults (Newborn/Neonatal Information Not Included) *Note:* Maneuvers used only by healthcare providers are indicated by “HCP”

MANEUVER	ADULT Lay rescuer: ≥8 years HCP: Adolescent and older	CHILD Lay rescuers: 1 to 8 years HCP: 1 year to adolescent	INFANT Under 1 year of age
ACTIVATE Emergency Response Number (one rescuer)	Activate when victim found unresponsive HCP: if asphyxial arrest likely, call after 5 cycles (2 minutes) of CPR	Activate after performing 5 cycles of CPR For sudden, witnessed collapse, activate after verifying that victim unresponsive	
AIRWAY	Head tilt–chin lift (HCP: suspected trauma, use jaw thrust)		
BREATHS Initial	2 breaths at 1 second/breath	2 effective breaths at 1 second/breath	
HCP: Rescue breathing without chest compressions	10 to 12 breaths/min (approximately 1 breath every 5 to 6 seconds)	12 to 20 breaths/min (approximately 1 breath every 3 to 5 seconds)	
HCP: Rescue breaths for CPR with advanced airway	8 to 10 breaths/min (approximately 1 breath every 6 to 8 seconds)		
Foreign-body airway obstruction	Abdominal thrusts		Back slaps and chest thrusts
CIRCULATION HCP: Pulse check (≤10 sec)	Carotid (HCP can use femoral in child)		Brachial or femoral
Compression landmarks	Center of chest, between nipples		Just below nipple line
Compression method Push hard and fast Allow complete recoil	2 Hands: Heel of 1 hand, other hand on top	2 Hands: Heel of 1 hand with second on top or 1 Hand: Heel of 1 hand only	1 rescuer: 2 fingers HCP, 2 rescuers: 2 thumb–encircling hands
Compression depth	1 ½ to 2 inches	Approximately ⅓ to ½ the depth of the chest	
Compression rate	Approximately 100/min		
Compression-ventilation ratio	30:2 (1 or 2 rescuers)	30:2 (single rescuer) HCP: 15:2 (2 rescuers)	
DEFIBRILLATION			
AED	Use adult pads. Do not use child pads/child system. HCP: For out-of-hospital response may provide 5 cycles/2 minutes of CPR before shock if response > 4 to 5 minutes and arrest not witnessed.	HCP: Use AED as soon as available for sudden collapse and in-hospital. All: After 5 cycles of CPR (out-of-hospital). Use child pads/child system for child 1 to 8 years if available. If child pads/system not available, use adult AED and pads.	No recommendation for infants <1 year of age