

Cardiopulmonary Resuscitation (CPR) Automated External Defibrillator (AED)

First Aid/CPR/AED Refresher Module 4

DETENTION
TRAINING UNIT





Basic Life Support (BLS) Review

- Review of CAB: Circulation, Airway, Breathing
- Review of Adult, Child and Infant One person CPR
- Review of Adult, Child and Infant Two person CPR
- Review of AED use
- Review of Basic Airway Management
- Review of Pocket Mask and BVM
- Reasons to Stop CPR



Victim Initial Assessment

- Scene Safety
- Check for responsiveness (Shout, tap, sternum rub)
- Check pulse for 5-10 seconds while looking and listening for breathing
 - ✓ Radial: *Inner wrist of the thumb side*
 - ✓ Dorsalis Pedis: *Top of the foot*
 - ✓ Carotid: *Side of neck near Adams apple/vocal cord*
 - ✓ Brachial (Infants): *Inside upper arm between elbow and shoulder*



Victim Initial Assessment Cont.

- If not breathing or only gasping for air, and/or cannot detect a definitive pulse within 10 seconds, activate EMS
- If available, call for additional immediate help and have them bring an AED
- Start CPR: CAB – Compression, Airway, Breathing
- Limit compression interruptions to less than 10 seconds



Basic Airway Management

- Head Tilt Chin Lift:
✓ *No suspected head injury*
- Modified Jaw Thrust:
✓ *Suspected head injury*



Adult 1 & 2 rescuer CPR

- INITIAL ASSESSMENT
- NO PULSE, AND NOT BREATHING: **Begin chest compressions**
 - ✓ *Compress the chest at least 2" inches deep and allow full recoil*
 - ✓ *Two hand compression on lower half of breast bone*
 - ✓ *30 compressions (rate of 100-120 per min) and 2 breaths*
 - ✓ *Same 30:2 ratio for both 1 and 2 rescuers*
 - ✓ *For 2 rescuer, switch every 5 cycles or 2 minutes*
- HAS PULSE, BUT NOT BREATHING: **Begin rescue breathing.**
 - ✓ *Mask: Check airway and begin rescue breathing at a rate of 1 breath every 5 seconds*



Child 1 & 2 rescuer CPR

- INITIAL ASSESSMENT
- CHILD: 1 year to signs of puberty
- NO PULSE, AND NOT BREATHING: **Begin chest compressions**
 - ✓ *Compress the chest at least 2" inches deep and allow full recoil*
 - ✓ *Straight arm 1 hand or 2 hand compression on lower half of breast bone*
 - ✓ *Compression rate of 100-120 per minute*
 - ❖ *30 compressions & 2 breaths for 1 rescuer*
 - ❖ *15 compressions & 2 breaths for 2 rescuer*
 - ✓ *For 2 rescuer, switch every 5 cycles or 2 minutes*
- HAS PULSE, BUT NOT BREATHING: **Begin rescue breathing**
 - ✓ *Mask: Check airway and begin rescue breathing at a rate of 1 breath every 5 seconds*

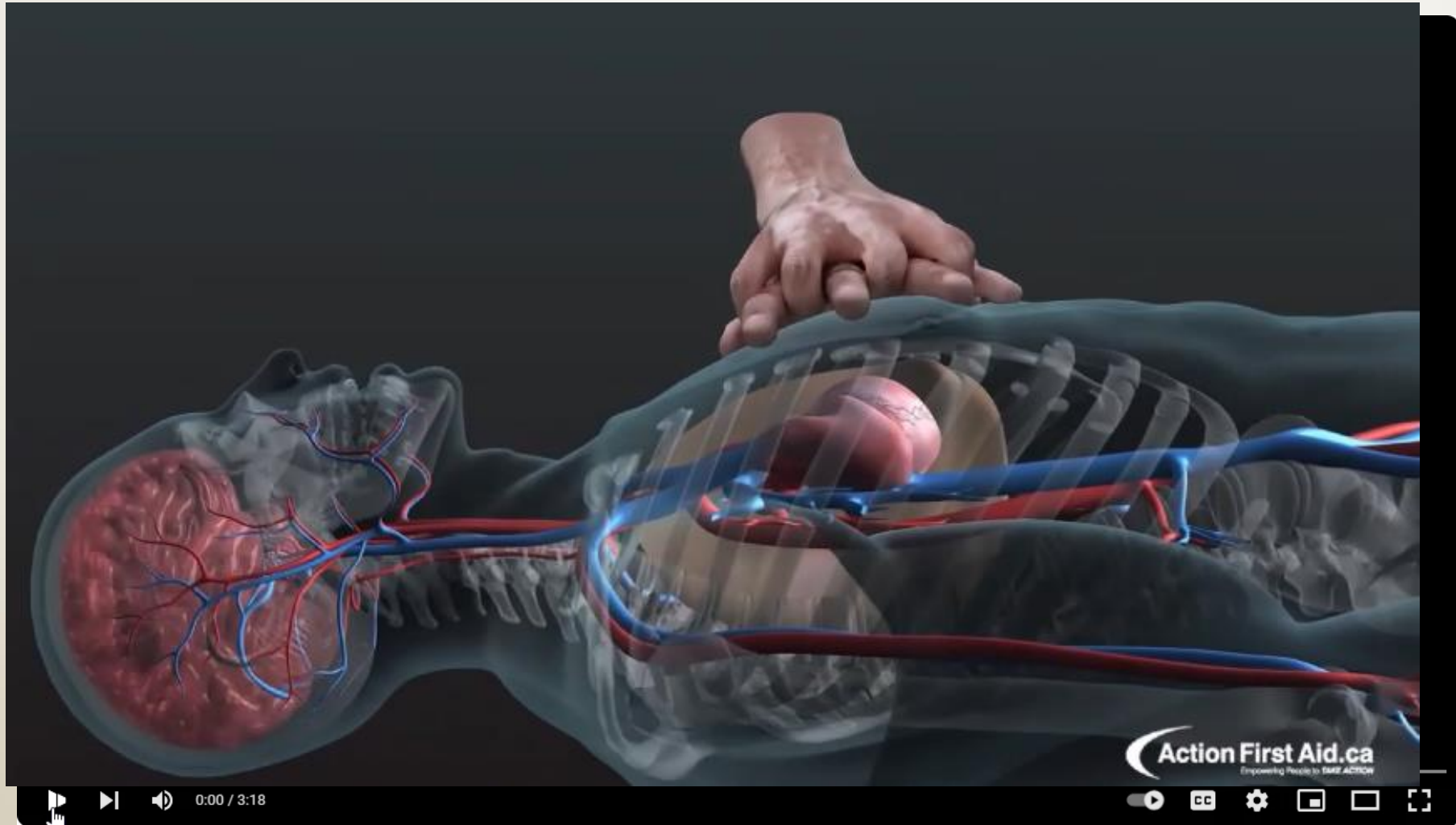


Infant 1 & 2 rescuer CPR

- INITIAL ASSESSMENT – Tap bottom of foot for responsiveness
- INFANT: Younger than a year old.
- NO PULSE, AND NOT BREATHING: **Begin chest compressions**
 - ✓ *Compress the chest at least 1-1/2" inches deep and allow full recoil.*
 - ✓ *Two finger or Two thumb compression below the nipple line*
 - ✓ *Compression rate of 100-120 per minute.*
 - ❖ *30 compressions & 2 "puffs" for 1 rescuer*
 - ❖ *15 compressions & 2 "puffs" for 2 rescuer*
 - ✓ *For 2 rescuer, switch every 5 cycles or 2 minutes.*
- HAS PULSE, BUT NOT BREATHING: **Begin rescue breathing.**
 - ✓ *Mask: Check airway and begin rescue breathing at a rate of 1 "puff" every 3 seconds.*



CPR In Action – A 3D Look Inside the Body



CPR Mask & Bag Valve Mask (BVM)




REMINDER

PAM Masks are required equipment and must accompany each deputy during their shift

*Compression only CPR is **NOT** authorized*



Automated External Defibrillator

- **Power** on the AED
- Listen to the prompts from AED
- Apply pads on bare chest (Size: Adult/Child)
- Place one pad on the right side of the chest and one pad on the left side of the chest below the left nipple (Patient's right and left side)
- Start and stop CPR when prompted by AED
- Press the **Charge**  button when prompted by AED to deliver a charge
- When prompted to **Clear** by AED ensure there's no physical contact between patient and others
- Continue to follow prompts from AED



Drowning / AED / Agonal Breathing



Reasons not to perform or stop CPR

- There is significant injury to you
- Obvious signs of death: Decapitation, rigor mortis, shotgun blast to the head, burned beyond recognition, decomposition
- Trapped inside a burning building
- Pulse and breathing return to the victim
- A notarized DNR in place (MSD. D.7)
- Relieved by qualified personnel
- A physician orders you to stop CPR



CPR cheat sheet

	<i>ADULT</i>	<i>CHILD</i>	<i>INFANT</i>
<i>Compression Rate</i>	100 – 120 Compression rate per minute / Full recoil		
<i>Compression Depth</i>	2" Inches		1-1/2" Inches
<i>Compression to Ventilation Ratio</i>	1 or 2 Rescuer 30:2	1 Rescuer: 30:2 2 Rescuer: 15:2	
<i>Hand Placement</i>	2 Hand Lower sternum	2 or 1 Hand Lower sternum	2 Finger / 2 Thumb Below nipple line

2 Rescuer: Rotate every 2 minutes or 5 cycles

An AED is most effective when used within 3 minutes of Cardiac Arrest





Learning Activity #2

