

NVHS FRESHMAN CPR
CLASSROOM CONTENT SUMMARY/OBJECTIVES

Heartsaver CPR in Schools - American Heart Association (AHA) Updated 2010

Introduction: Why CPR training?
Why do people hesitate to act in life-threatening emergencies?
Survival depends on YOU taking action!

Recognizing 4 Life-Threatening Emergencies in Adults:

Heart Attack -occurs when the heart's major blood vessels become blocked so the oxygen is not delivered to the heart muscle. The lack of oxygen causes the heart muscle to die, producing pain and other symptoms.

Symptoms: severe pain or pressure in the center of the chest, lightheadedness, shortness of breath, faint, cold sweats, or other vague symptoms. **Call 911!** *Denial by victim often causes delay.

Cardiac Arrest-occurs when the heart stops pumping blood and therefore the blood flow to the brain and body stops causing the victim to become unresponsive.

Symptoms: No response, no normal breathing. **Call 911!**

Stroke-occurs when part of the brain does not receive blood flow and oxygen, which may be caused by a blockage in a blood vessel of the brain or by bleeding into the brain.

Symptoms: facial droop, arm weakness, speech difficulties, or severe headache, problems with vision, dizziness, loss of balance, etc. **Call 911!**

Choking-occurs when a foreign object blocks the airway (FBAO), which causes a lack of air into the lungs and oxygen to the brain. If the victim becomes unresponsive, **Call 911!**

Symptoms: look for universal sign of choking (hands criss-crossed around throat, cannot speak, cough, or breathe). What to do? Ask, "Are you choking?" "Can you speak?" If the victim is responsive but cannot speak, perform the **Heimlich Maneuver** (Abdominal Thrusts). Stand for Adult; Kneel behind Child; back-slaps for Infant.

Recognizing Life-Threatening Emergencies in Children & Infants:

Cardiac Arrest - Symptoms: unresponsive, has no normal breathing.
After 5 sets of CPR, **Call 911!**

Respiratory Arrest -is present when a child/infant stops breathing, breathes slowly, or shallowly so that oxygen delivery to the brain is inadequate. Cardiac arrest will happen soon!

Symptoms: unresponsive and will have no signs of breathing. After 5 sets of CPR, **Call 911!**

Other Breathing Emergencies/Choking -occurs when foreign object (FBAO) blocks the airway which causes a lack of air into the lungs and to the brain. Airway obstruction can cause cardiac arrest in infants and children so you must act quickly.

Symptoms: look for universal sign of choking from an older child (crossing both hands around throat using thumb & index finger and unable to speak, cough, or breath). Coughing, gagging, or high-pitched noisy breathing are also signs of breathing emergencies. What to do? Ask, "Are you choking?" "Can you speak?" If the victim is responsive but cannot cough or speak, perform the **Heimlich Maneuver for a child/Back Slaps & Chest Thrusts for an infant, 0-1 years of age**. If the child/infant becomes unresponsive, give CPR - after 30 compressions, open mouth & look to remove object with each attempt before giving 2 breaths. **After 5 sets of CPR, call 911!**

Adult Rescue Program (if the victim has reached puberty):

Adult CPR Needed if victim is unresponsive and not breathing:

- Step #1 Find 2 hand placement in center of chest
 - Step #2 Lean forward so that your shoulders are above your straightened arms & hands
 - Step #3 Provide 30 compressions at a RATE of about 100 compressions per min., compress 2 inches
 - Step #4 Give 2 breaths (1 sec each) to make the chest rise
 - Step #5 After 5 sets of 30 compressions & 2 breaths, continue...
- *If CPR works, put victim on his/her side (recovery) & wait for EMS

Checking the Adult Victim & Performing CPR:

Check - Scene is safe & is victim responsive (conscious).

Shake gently & shout, "Are you ok?" to see if the victim responds

Call - If no response, yell for help & tell someone else to call; Phone 911 if ALONE;

Care - Perform the CABs:

C - CPR: Begin CPR with 30 compressions

A - Airway: open the airway with the head tilt-chin, lift

B - Breathing: Give 2 breaths (1 sec each) enough air to make the chest rise.

Complete CPR Sequence for Adult from Instructional DVD:

1. Check for response
2. Yell for help and send someone else to call; Phone 911 if ALONE
3. Scan the body to determine if the victim is or is NOT breathing
4. If NO breathing, give 30 compressions at a rate of at least 100 per minute
5. Give 2 breaths (1 sec each & make the chest rise)
 - * If CPR works, place the victim on his/her side in the recovery position & wait for EMS
6. **Continue CPR until:**
 - AED arrives
 - Victim breathes/CPR works
 - Trained help (EMS) arrives to take over
 - Scene becomes unsafe
 - You become too exhausted to continue

Pediatric Rescue Program (if the victim has NOT reached puberty but is above the age of 1):

Child CPR Needed if the victim is unresponsive and is not breathing.

- Step #1 Find hand placement (one/two hands on center of the chest)
 - Step #2 Lean forward so that your shoulders are above your straightened arms & hands
 - Step #3 Provide 30 compressions at a rate of about 100 compressions per min., compress 2 inches
 - Step #4 Give 2 breaths (1 sec each to make the chest rise)
 - Step #5 Complete 5 sets of 30:2 - IF you are ALONE, call 911 NOW!
- * If CPR works, place the child on his/her side in the recovery position & wait for EMS

Complete CPR Sequence for Child from Instructional DVD:

*Same as for the Adult EXCEPT if you are ALONE, do 5 sets of CPR and then call 911!

AED-Automated External Defibrillation: Needed for a victim (Adult or Child) who has gone into cardiac arrest and is unresponsive and is not breathing normally. The AED is a computerized defibrillator that can analyze the heart rhythm of an unresponsive person, recognize a rhythm that requires a shock, and advise the operator through voice prompts and lighted indicators when a shock is needed.

Using the AED:

Step #1 Power On & place close to the left ear if possible (voice prompts will guide the operator)

Step #2 Attach AED pads

Remove clothing and place electrode pads to the victim's bare chest. One pad at the upper right chest below the collarbone and the other pad below the left armpit – "Clear"

Step #3 Analyze Heart Rhythm

AED will charge (some brands may require you to press the ANALYZE button)

Step #4 Shock

If "Shock Indicated" message, clear the victim & press the SHOCK button to provide shock.

Analysis of the heart rhythm and voice prompts will continue.

If "No Shock Indicated" message, check for signs of circulation - Begin CPR if needed.

Special Situations When using the AED Include:

1. ***IF Hairy Chest...THEN*** shave with razor, cut with scissors or "wax" the chest using the child pads before applying the Adult pads
2. ***IF Wet or Sweaty...THEN*** dry off the chest before applying the pads.
3. ***IF Implanted Pace Maker...THEN*** place AED electrode away from the implanted device (do not place the electrode on top of it).
4. ***IF Medication Patch...THEN*** remove the patch and wipe the skin clean before applying the pad.

Adult/Child Conscious Choking: If the victim is showing universal sign for choking.

Ask, "Are you choking?" If the victim is responsive but cannot speak, cough, or breathe then perform the **Heimlich Maneuver:**

Step #1 Stand/kneel behind the victim and establish foot & hand position. Place one foot in between the victim's feet in case he/she becomes unresponsive during your attempts. With a one-handed fist, wrap your arms around the front of the victim.

Step #2 Place the thumb side of your fist slightly above the victim's belly button.

Step #3 Grasp your fist with your other hand & provide quick, upward abdominal thrusts

STOP IF:

1. The ***object comes out*** and the victim can breathe
2. The victim becomes ***unresponsive***
*If the victim becomes unresponsive call 911 & begin CPR –
After 30 compressions, open mouth & look to remove object with each attempt before giving 2 breaths.

If you see it, remove it.

If you do NOT see it, continue with breaths followed by 30 compressions. After each set of 30 compressions, check for the object.

Goal: Object Out/Air In!

Infant CPR age 0-1: Needed if infant is unresponsive and not breathing:

Step #1 Find hand placement (two fingers on center of the chest just below nipple line)

Step #2 Provide 30 compressions at a rate of about 100 compressions per min., compress at least 1.5 inches

Step #3 Give 2 breaths (1 sec each to make the chest rise)

Step #4 Complete 5 sets of 30:2 - IF you are ALONE, call 911 NOW!

Checking the Infant Victim:

Check - Scene is safe & is victim responsive (conscious)? Tap the bottom of the feet & shout, "Are you ok?" to see if the victim responds

Call - If no response, phone 911 (yell for help & send someone else to call)

Care - Perform the CABs:

C-CPR: Begin CPR with 30 compressions

A-Airway: gently open the airway with the head-tilt, chin-lift

B-Breathing:

If none, give 2 breaths (1 sec each) enough air to make the chest rise

Complete CPR Sequence from Instructional DVD:

1. Check for response

2. Send someone to call 911

3. Scan the body to determine if the victim is or is NOT breathing

4. If NO breathing, give 30 compressions

5. Give 2 breaths (1 sec each to make chest rise)

6. After 5 sets phone 911 if alone

*If CPR works, do OT put the infant into the recovery position. Keep the infant on its back and maintain an open airway until EMS arrives.

Continue CPR until:

AED arrives

Victim breathes/CPR works

Trained help (EMS) arrives to take over

Scene becomes unsafe

You become too exhausted to continue

Infant Conscious Choking: Needed if the infant IS responsive but cannot cry or cough, breathing attempts may result in high-pitched sounds, or the infant becomes blue (discoloration).

Perform Back Slaps & Chest Thrusts:

Step #1 Position the infant head down & deliver 5 back slaps with the heel of your hand

Step #2 Turn infant over & give 5 chest thrusts using 2 fingers on breastbone just below the nipples

Step #3 Alternate back blows & chest thrusts until the object is dislodged

*If the infant becomes unresponsive, attempt CPR - Following 30 compressions, open mouth & look to remove object each time before giving 2 breaths. If you see the object, remove it with a finger sweep.