

Foreign Body Airway Obstruction (FBAO)

Course

Health Science

Unit VI

CPR/AED &
First Aid

Essential Question

How can you
help when
someone is
choking?

TEKS

130.204 (c) 8
(H)

Prior Student Learning

Students should
have completed
the unit of
Anatomy &
Physiology:
Cardiovascular
and Respiratory
system, and
Adult/child and
infant CPR,

Estimated time

1 hours

Rationale

Healthcare professionals have a responsibility to respond appropriately to all situations, including choking emergencies.

Objectives

Upon completion of this lesson, the student will be able to:

- Show the steps to relieve choking in the responsive and unresponsive victims: adult, child, or infant
- List the signs of choking

Engage

Ask the students if they have ever choked on something. Have responding students explain how it felt. Did they panic? What is it like not to be able to get enough air in?

Key Points

- I. Mild Airway Obstruction
 - a. Good air exchange
 - b. The victim can respond and cough forcefully
 - c. The victim may wheeze between coughs
- II. Rescuer's action in the case of mild airway obstruction
 - a. If the victim is able to cough and continues with his effort to breathe, the rescuer does nothing but encourage the victim to continue coughing.
 - b. Stay with the victim and monitor his condition.
 - c. If the mild airway obstruction persists, call 911.
- III. Severe Airway Obstruction
 - a. May be unable to speak
 - i. As air comes out of our lungs it passes over our larynx, the voice box vibrates and sounds are produced.
 - ii. We learn to use our tongue, lips, and mouth to make these sounds into understandable speech.
 - iii. If the victim can get little to no air into his lungs, no air is able to come out either; therefore, the inability to speak happens.
 - b. Weak, ineffective cough, or inability to cough
 - i. Coughing is the body's instinctive way to try to clear the airway
 - ii. The diaphragm is a dome-shaped muscle separating the thoracic and abdominal cavities, which helps to control breathing.
 1. During inhalation the diaphragm presses the abdominal organs forward and downward, thus

- increasing the space in the thoracic cavity. This creates a lower than atmospheric pressure in the thoracic cavity, allowing air to rush into the lungs.
 - 2. During exhalation the diaphragm rises and recoils to the resting position, decreasing the amount of space in the thoracic cavity. This causes the pressure in the lungs to become greater than the atmospheric pressure. Air is pushed out of the lungs.
 - 3. The diaphragm is responsible for performing the major work of bringing atmospheric air into the lungs.
- iii. Coughing is a deep breath followed by a forceful exhalation from the mouth to clear the lower respiratory tract.
- c. High-pitched noise while inhaling, or no noise at all
 - i. There may be some air able to escape around the airway obstruction.
 - 1. This may cause a wheezing sound.
 - 2. This may cause a whistling sound.
 - ii. The airway may be totally occluded so no air can be pushed out of the lungs, leaving the victim with the inability to make any sound at all.
 - d. Increased respiratory difficulty
 - i. The choking individual may be struggling hard to breath.
 - ii. May be using their shoulder muscles to try to raise their chest to let air in
 - e. Cyanosis
 - i. Lips and other mucus membranes begin to turn bluish or grayish.
 - ii. It is a sign of lack of O₂ in the body.
 - f. Universal choking sign
 - i. Clutching the neck with the thumb and fingers
 - ii. Visibly choking and panicking
- IV. Rescuer's action for severe airway obstruction in an adult/child victim
 - a. Ask the victim if he or she is choking
 - b. If the victim nods yes and cannot talk, activate the emergency response system
- V. Relieving choking in adults and children over age 1
 - a. Use abdominal thrusts, also known as the Heimlich maneuver.
 - b. Give each individual thrust with the intent of relieving the obstruction.
 - i. Stand or kneel (depending on the size of your victim) and wrap your arms around the victim's waist.
 - ii. Your victim is standing at this point.
 - iii. Make a fist with one hand.

- iv. Place the thumb side of your fist just above the umbilicus.
 - v. Put your other hand over your fist.
 - vi. Using the strength of both hands, press your fist into the victim's abdomen with a quick upward thrust.
 - 1. This pushes up the diaphragm.
 - 2. Creates an artificial cough
 - vii. Repeat thrusts until the obstruction is expelled from the airway.
 - viii. The victim may become unresponsive during this process.
- VI. The unresponsive adult or child victim
- a. If your choking victim becomes unresponsive
 - i. Let the victim slide down your body to the floor.
 - ii. Try to prevent the victim's head from hitting the floor.
 - iii. You would have already called 911.
 - b. Now you have an unconscious victim whom you know is unconscious because he or she was choking.
 - c. Open the airway (mouth); if you see the obstructing object, remove it.
 - i. You can tell if you have successfully removed an airway obstruction.
 - ii. You will see and remove a foreign body from the victim's pharynx.
 - iii. You will be able to feel air movement and see the chest rise.
 - iv. The victim may start breathing on his or her own when the foreign body is removed.
 - v. If the victim does not start breathing on his or her own give 2 breaths and check for a pulse.
 - 1. If the victim has a pulse, continue rescue breathing, and check for a pulse every 2 minutes.
 - 2. If the victim continues to have a pulse, keep giving rescue breaths until EMS arrives or the victim begins to breathe on his or her own.
 - 3. If the victim does not have a pulse, begin the steps of CPR.
 - d. Unable to see the obstruction
 - i. If you did not see the obstructing object when you first opened the airway, begin the steps of CPR.
 - ii. Look again for the object every time you open the airway to give breaths.
 - iii. Don't put your fingers in the victim's mouth unless you see an object that needs to be removed.
 - iv. Continue CPR until EMS arrives or the victim is revived.
- VII. Recovery position

- a. If the choking victim is revived place him or her in the recovery position.
 - b. Side-lying position
 - c. Allows for vomit or other objects in the mouth to fall from the mouth and not back down the victim's throat
- VIII. Medical attention
 - a. If you successfully relieved choking with the abdominal thrust, encourage the victim to seek immediate medical attention.
 - b. There may be complications from an abdominal thrust.
- IX. Possible abdominal thrust complications
 - a. Damage to internal organs
 - b. Cracked ribs
- X. Obese or pregnant choking victims
 - a. If the victim is simply too large for you to get your arms around, you may do a chest thrust instead of an abdominal thrust.
 - i. Stand or kneel (depending on the size of the victim) and wrap your arms around the victim's chest.
 - ii. Your victim is standing at this point
 - iii. Make a fist with one hand
 - iv. Place the thumb side of your fist in the middle of the chest, between the nipples.
 - v. Put your other hand over your fist.
 - vi. Using the strength of both hands, press your fist into the victim's chest with a quick upward thrust.
 - 1. This pushes air out of the lungs.
 - 2. Creates an artificial cough
 - vii. Repeat thrusts until the obstruction is expelled from the airway.
 - b. If the victim is pregnant, you should not give an abdominal thrust.
 - i. Give a chest thrust as explained above.
 - ii. Don't take the risk of hurting the baby by attempting an abdominal thrust.
 - iii. Never perform abdominal thrusts on pregnant women.
- XI. Choking infants
 - a. The signs of mild and severe airway obstruction in an infant are the same as those for adult or child.
 - b. Clearing an infant's airway requires a combination of back slaps and chest thrusts.
- XII. Relieving choking in a responsive infant
 - a. Sit with the infant on your lap.
 - b. Resting the baby on your forearm, hold the infant prone with the head lower than the chest.
 - c. Support the baby's head and jaw with your hand.
 - d. Rest your forearm on your lap or thigh to support the baby.
 - e. Deliver 5 back slaps to the infant.

- i. Slaps must be delivered forcefully in the middle of the back, between the baby's shoulder blades.
 - ii. Use the heel of your hand to deliver the slaps.
 - iii. Each slap should have sufficient force to attempt to dislodge the foreign body.
 - f. Place your free hand on the infant's back, supporting the baby's head with the palm of your hand.
 - g. Carefully cradle the infant between your forearms, with the head supported, and turn the baby on his or her back.
 - h. Keep the infant's head lower than his or her trunk.
 - i. Give up to 5 downward chest thrusts, in the same location as chest compressions for an infant.
 - i. The rate of chest thrusts is one per second
 - ii. Each forceful thrust creates an artificial cough.
 - iii. Hopefully the 'cough' is strong enough to dislodge the foreign body.
 - j. Repeat the sequence of 5 back slaps and up to 5 chest thrusts until the object is removed, OR the infant becomes unresponsive.
 - k. NEVER perform an abdominal thrust on an infant
- XIII. The unresponsive infant
- a. Once the choking victim becomes unresponsive, stop giving back slaps.
 - b. Begin the steps of CPR
 - i. Each time you open the airway, look for the obstruction object in the back of the throat.
 - ii. If you see the object, remove it.
 - iii. Do not perform a blind finger sweep.
 - 1. The foreign body may be pushed further back into the airway.
 - 2. May cause further obstruction or injury
 - c. The chest compressions give effective pressure in the chest and may be able to relieve the obstruction.
 - d. After about 2 minutes of CPR (5 cycles), activate the EMS system if you have not already done so.
 - e. Continue the steps of CPR until the victim responds or trained emergency medical personnel arrive.
 - f. If your infant victim is revived:
 - i. Continue to monitor the baby until EMS gets there to take over.
 - ii. The recovery position is **not** recommended for infants and small children.

Activity

- I. Have the students use their hand to press gently on their throat, directly over the trachea. Then have them try to speak. Their voices will be distorted due to the slight pressure on their trachea which is simulating a mild airway obstruction.
- II. Perform the steps of FBAO removal.

Assessment

Successfully perform the steps of FBAO removal.

Rubric

Materials

Choking Charlie manikin or similar manikin

Manikin cleaning supplies

BLS for Healthcare Providers by the American Heart Association

Accommodations for Learning Differences

Students needing reinforcement will receive one-on-one coaching during FBAO removal practice.

For enrichment, the students may continue their practice and training to compete in the HOSA CPR/FA contest.

National and State Education Standards

National Healthcare Foundation Standards and Accountability Criteria:

Foundation Standard 2

2.11 Interpret verbal and nonverbal communication

2.14 Recognize the elements of communication using a sender-receiver model.

2.15 Apply speaking and active listening skills

2.22 Use medical abbreviations to communicate information

Foundation Standard 10: Technical Skills;

Healthcare professionals will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.

Accountability Criteria

10.1 Technical Skills

10.12 Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO) and first aid. Additional technical skills may be included in a program of study based on career specialties

TEKS

130.204 (c)(8)(H) demonstrate first aid, vital signs, cardiopulmonary resuscitation, and automated external defibrillator skills in a laboratory setting.

Texas College and Career Readiness Standards

Science Standard

I. Nature of Science C. Collaborative and safe working practices
Demonstrate skill in the safe use of a wide variety of apparatuses, equipment, techniques, and procedures.

Cross-Disciplinary Standards,

I. Key Cognitive Skills D. Academic Behavior: 1. Self monitor learning needs and seek assistance when needed, 3. Strive for accuracy and precision, 4. Persevere to complete and master task. E. Work habits: 1. Work independently, 2. Work collaboratively
II. Foundation Skills A. 2. Use a variety of strategies to understand the meaning of new words. 4. Identify the key information and supporting details.

Student Name: _____
 Date: _____

Health Science Adult/Child FBAO Checklist

Steps	Action	Successfully completed
Step 1	Observe the victim displaying the universal choking sign and ask if you can help.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 2	Activate the Emergency Medical Service system. 911!	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 3	Tell the victim that you are going to try to help.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 4	Stand or kneel behind the victim and wrap your arms around his or her waist.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 5	Place your fist hand, thumb side next to victim's abdomen, just above the umbilicus.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 6	Place your second hand over your fist hand and perform a quick upward thrust.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 7	Repeat until FBAO is expelled or victim becomes unresponsive.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 8	If victim becomes unresponsive, help him or her slide down your body to the floor, protecting his or her head if at all possible	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 9	Begin the steps of CPR, looking for the FBAO each time you open the airway to give a breath.	<input type="checkbox"/> completed <input type="checkbox"/> skipped

9 steps completed = 100
 8 steps completed = 90
 7 steps completed = 70 and needs remediation

Comments:

Student Name: _____
 Date: _____

Health Science **Infant FBAO Checklist**

Steps	Action	Successfully completed
Step 1	Recognize that the baby is showing the signs of a severe airway obstruction.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 2	Activate the Emergency Medical Service system. 911!	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 3	Hold the infant prone as he or she rests on your forearm, with the head slightly lower than the chest.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 4	Support the baby's head and jaw with your hand, avoiding compressing the soft tissues of the infant's throat.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 5	Rest your forearm on your lap or thigh to support the infant.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 6	Deliver 5 back slaps to the middle of the baby's back, between the shoulder blades, using the heel of your hand.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 7	Cradle the baby between your forearms, with the palm of one hand supporting the face and jaw.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 8	Turn the infant as a unit to the supine position with his or her head lower than the trunk.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 9	Hold the infant on his or her back with your forearm resting on your thigh for support.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 10	Give 5 quick downward chest thrusts to the center of the chest, just below the nipple line.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 11	Repeat the sequence of 5 back slaps and 5 chest thrust until the FBAO is expelled or the infant becomes unresponsive.	<input type="checkbox"/> completed <input type="checkbox"/> skipped
Step 12	If the infant becomes unresponsive, begin the steps of CPR, looking for the FBAO each time you open the airway to give a breath.	<input type="checkbox"/> completed <input type="checkbox"/> skipped

12 steps completed = 100

11 steps completed = 90

10 steps completed = 70 and needs remediation