# CHAPTER 10 Emergency Procedures

#### Lesson Purpose

To give the student the fundamental knowledge of emergency procedures.

### • Lesson Objective

Upon completion the student will:

- Learn the procedures for adult, child and infant rescue breathing
- Learn the procedures for adult, child and infant airway obstructions
- Learn the procedures for adult, child and infant Cardiopulmonary Resuscitation (CPR)

# *"We are that which we repeatedly do. Excellence therefore, is not an act, but a habit."*

-Aristotle

### Introduction

When you deal with the public, it is important to be prepared for any situation. Chiropractic therapy assistants should have general knowledge of emergency procedures. Do you know what to do? Is your office prepared? You never know when you may have to deal with an emergency. It is vital that you and your office are prepared. Calling for emergency services (EMS or 9-1-1) is essential, but there are still things you can do right away to keep the situation from getting worse. In the following pages, we have put together a variety of information to help prepare you for the unknown. The information provided in this chapter should be viewed for instruction purposes and is not intended as a replacement for certification. The information presented in this chapter is based on the 2005 Consensus of Science for CPR and Emergency Cardiovascular Care (ECC) as it is presented in participant's manuals from the American Red Cross (ARC) and the American Heart Association (AHA). Certification procedures may vary slightly from different organizations. These differences will be noted in the text where appropriate. If you decide to become certified, you must follow the guidelines from your certifying organization. This includes staying informed of changes in emergency care procedures as they become available.

## **Is Your Office Prepared?**

#### **First Aid Kit**

Do you have one? Do you know where it is? When was it last opened? Since we are not an emergency profession, we really do not think that much about emergency procedures until we need them. You may have an emergency kit already in your office but may be unsure of where it is, or when it was last used. It is important to regularly check the items due to time, moisture, or heat exposure.

#### Automated External Defibrillator (AED)

The automated external defibrillator (AED) is a computerized medical device. An AED is able to check a person's heart rhythm and recognize a rhythm that requires a shock. AEDs are accurate and easy to use. The AED uses voice prompts, lights, and text messages to tell the rescuer the steps to take and when a shock is needed. There are a number of different brands of AEDs, but the same basic steps apply to all of them. With training, anyone can learn to operate an AED safely.

## Rescue Breathing, CPR, and Foreign Body Airway Obstruction

#### Adult Rescue Breathing/CPR

When you find a person on the floor who seems to be unconscious, check the area for danger and follow these steps:

#### 1. Check for Unresponsiveness

Verify whether or not the person is conscious. Kneel down, tap him on the shoulder and shout, "Are you OK?"

#### 2. Activate EMS

If there is no movement or response, then get help. Call 9-1-1 and get an automated external defibrillator (AED), if available, or get someone around you to call.

#### 3. Position the Victim

If the person is not already on his/her back, place him or her in that position. Roll the whole body at once and avoid twisting it in case there are other

injuries that could be aggravated. Do this quickly but carefully.

- Kneel near the victim's side
- Straighten legs if necessary
- Stretch arm closest to you over the victim's head to avoid trapping it under the body
- Roll the victim face up, supporting the head, neck and back
- Pull slowly towards you
- Straighten both arms at the victim's side



Checking for Unresponsiveness



Activating Emergency Services



Step 1: Positioning the Victim



Step 2: Positioning the Victim

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#### 4. Open the Airway

Opening the airway involves tilting the head and lifting the chin to pull the tongue away from the back of the throat where it may hinder breathing.

- Place your hand which is closest to the victim's head on his/her forehead, and apply firm backward pressure with the palm of your hand to tilt the head back.
- Place the fingers of your other hand under the bony part of the victim's lower jaw near the chin and lift to bring the chin forward.
- Lift the jaw until the teeth are nearly brought together. Do not • close the victim's mouth. You can use your thumb to help keep the mouth open. Do not press on the soft tissue under the chin. This might close the airway.

#### 5. Check for Breathlessness

(Look, listen, and feel for breathing.) With the head tilted back and the chin lifted, check to see if the victim is breathing. Tilting the head back opens the airway and may, in itself, restore breathing.

## To check breathing:

- Keep the victim's head tilted back and the chin lifted in order to keep the airway open.
- Place you ear just above the victim's mouth and nose and look at the victim's chest.
- "Look, listen, and feel." Look for the chest to rise and fall, listen for breathing, and feel for air coming out of the victim's nose and mouth. Do this for no more than 10 seconds.
- If the victim is breathing, you will see chest movement and hear and feel escaping air at your ear and cheek. Chest movement alone does not mean that the victim is breathing.

**Opening the Airway** 





Look, Listen and Feel



#### 6. Give Two Rescue Breaths

If the person is not breathing, you must get air into his or her lungs at once.

• While keeping the airway open with the headtilt/chin-lift, gently pinch the victim's nose shut with the thumb and index finger of your hand that is maintaining backward pressure on the forehead.



Give 2 Rescue Breaths

- Open your mouth wide. Take a normal breath. Seal your lips tightly around the outside of the victim's mouth.
- Give two rescue breaths at the rate of 1 second per breath. Pause between breaths just long enough for you to take another breath. Watch for the chest to rise while you breathe into the victim and for the chest to fall after you remove your mouth from the victim. Listen and feel for air escaping as the victim's chest falls.
- Use enough force to make the chest rise but avoid using excessive force, which could cause gastric inflation. Gastric inflation is when air is forced into the stomach, which can cause a victim to aspirate, vomit, or swell the stomach and decrease lung movements.

If you feel resistance when you breathe into the victim, and air will not go in, the most likely cause is that you may not have tilted the head back far enough and the tongue may be blocking the airway. Re-tilt the head and give two full breaths. If air still does not go into the victim's lungs, food or some other material may be blocking the victim's

airway. (Follow instructions to remove airway obstructions on the following pages.)

- 7. Check for a Pulse at the Side of the Neck Check to see if the victim's heart is beating by feeling for a pulse at the side of the neck. This pulse is called the carotid pulse.
  - While keeping the victim's head tilted back with one hand on the forehead, use your other hand to find the pulse.



Check for Pulse at Neck

First place your index and middle fingers on the Adam's apple

(men and women both have Adam's apples). Then slide your fingers toward you into the groove between the windpipe and the muscle at the side of the neck. This is where the carotid pulse is located.

• Press gently with your fingertips to feel for the beat of the pulse. Be sure to feel for the pulse on the side of the neck closest to you. Do not use your thumb because you may feel your own pulse.

Feel for the carotid pulse for at least 5 seconds but not more than 10 seconds.

8. Begin Rescue Breathing

**Rescue Breathing** 

If you feel a pulse, and the victim is not breathing, then you must begin rescue breathing. **Breathing barriers** such as

face shields and resuscitation masks create a barrier between your mouth and the patient's mouth and nose. The risk of infection from CPR is considered low, however, the Occupational Safety and Health\Administration (OSHA) holds healthcare workers to a higher standard of protection. Breathing barriers can help protect you from diseases that are transmitted through blood, vomit, and saliva.

If you do not feel a pulse, the victim's heart has stopped and you must administer CPR (see below).

- Keep the airway open and give one breath every 5 to 6 seconds at the rate of 1 second per breath, watching for the chest to rise. A good way to do this is to count "one, one-thousand, two, one-thousand, three, one-thousand, four, one-thousand (take a breath), b-r-e-a-t-h-e (into the victim)."
- Between breaths, remove your mouth from the victim and look for the chest to fall as you listen and feel at the victim's mouth and nose for air to come out. You should also listen for the return of breathing.
- After two minutes of rescue breathing (20-24 breaths), recheck the pulse. Keep the airway open and feel for the carotid pulse for 5 to 10 seconds.

If there is a pulse, then check for breathing. If breathing is present put the patient in the **recovery position**, keep the airway open, and monitor his/her breathing and pulse closely. This means that you should look, listen, and feel for breathing while you keep checking the pulse. To put a victim in the **recovery position** you should:

- Straighten the victim's legs and put the arm closest to you above the patient's head.
- Place the person's other arm across his/her chest and bend the top knee
- Place one hand at the bent knee and the other hand over the farthest shoulder and roll him/her onto their side.
- Place the bent knee and hip at right angles in front of the patient in order to keep him/her on his/her side.
- Place the back of the top hand under the cheek to help maintain an open airway.
- Continue monitoring the patient for breathing until EMS arrives.

If there is no breathing, continue rescue breathing and keep checking the pulse every two minutes.

Continue to give rescue breathing until:

- The victim begins breathing on his or her own.
- The victim loses a pulse and you need to begin CPR.
- Another trained rescuer takes over for you.
- Emergency medical services (EMS) personnel arrive and take over.
- The scene becomes unsafe.
- You are too exhausted to continue.

#### 9. Adult CPR

If the victim is not breathing and does not have a pulse, then you must begin CPR. The first step is to find the proper hand position.

• Place the heel of one hand on the center of the victim's chest between the nipples.



Placement of Hands and Chest Compressions

- Place the heel of your other hand on top of the first. The fingers on the top hand can interlace the fingers of the bottom hand.
- Your shoulders should be over your wrists and the elbows should be locked.

#### 10. Begin chest compressions.

- Push down forcefully on the chest 1<sup>1</sup>/<sub>2</sub> to 2 inches deep in order to create enough pressure to force blood flow from the heart.
- Release the pressure and allow the chest to return to its normal position, without raising hands off of the chest.
- Perform 30 chest compressions at a rate of 100 compressions per minute. A way to maintain an adequate compression rate is to use the count "1 and 2, and 3, and 4, and 5, etc."
- After 30 chest compressions, open the airway and deliver two rescue breaths.
- Return your hands to the chest and perform another 30 chest compressions and two rescue breaths.

#### 11. Recheck pulse and breathing

After performing 2 minutes (five cycles) of compressions and breathing (30:2) recheck the victim for signs of circulation.

- If there is no pulse, then continue CPR at the 30:2 compressions to ventilation ratio. Continue until EMS arrives, another trained rescuer takes over for you, the scene becomes unsafe, the victim shows signs of life, or you are too exhausted to continue.
- If there is a pulse but no breathing, begin performing rescue breathing at a rate of 10-12 breaths per minute (one breath every 5 to 6 seconds). Remember to check for a pulse frequently.
- If breathing and circulation are both present, then place the victim in the recovery position and continue to monitor his/her breathing and circulation until EMS arrives.



Recheck Pulse



Recheck Breathing



**Recovery** Position

## Foreign Body Airway Obstruction (conscious adult)

If you see someone who looks as if he or she is choking, but is coughing forcefully or can speak, do not interfere with the person's attempts to cough the object up on his/her own.

If the person is not coughing forcefully, begins wheezing, or is making no sounds at all:

- 1. **Ask, "Are you choking?"** If the person is coughing weakly or making high-pitched noises or is not able to speak, tell him you are trained in first aid and offer to help. If there is another person nearby, have him phone 9-1-1 or the local number and activate the EMS system for help.
- 2. **Perform abdominal thrusts** (Heimlich maneuver). **Abdominal thrusts** may be given to a conscious victim who is standing or sitting. Stand behind the victim and wrap you arms around his or her waist. Make a fist with one hand. Place the **thumb side** of your fist against the middle of the victim's abdomen, just above the navel and well below the lower tip of the breastbone.
- 3. **Grasp your fist with your other hand.** Keeping your elbows out from the victim, press your fist into the person's abdomen with a quick upward thrust. Be sure that your fist is directly on the midline of the victim's abdomen when you press. Do not direct the thrusts to the right or to the left.
- 4. American Heart Association (AHA): Repeat thrusts until the obstruction is cleared or until the person loses consciousness.

American Red Cross (ARC): Alternate 5 back blows and 5 abdominal thrusts until the object is removed or the victim becomes unconscious. You should think of each thrust as a separate and distinct attempt to dislodge the object.



Universal Choking Sign



Abdominal Thrusting Position

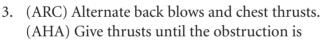


Back Blow Position

#### **Chest Thrusts (conscious victim)**

You may not be able to get your arms around the waist of some choking victims to deliver effective abdominal thrusts. For example, the person may be greatly overweight, or in the late stages of pregnancy. In the case of a pregnancy, abdominal thrusts could be dangerous. In both cases, chest thrusts are performed instead. Chest thrusts are done in the following way:

- 1. With the person either standing or sitting, stand behind and place your arms under the person's armpits and around the chest. Place the thumb side of your fist on the middle of the breastbone. Be sure that your fist is centered right on the breastbone and not on the ribs. Also, make sure that your fist is not near the lower tip of the breastbone.
- 2. Grasp your fist with your other hand and give backward thrusts.





Chest Thrust (front view)



Chest Thrust (side view)

cleared or until the person loses consciousness. You should think of each thrust as a separate attempt to dislodge the object.

#### When to Stop

You should stop giving abdominal or chest thrusts immediately if the object is coughed up or the person begins to breathe or cough. Watch the person and make sure that the object has been removed from the airway and that the person is breathing freely again. Even after the object is coughed up, the person may have problems breathing that are not clear to you. You should also realize that both abdominal thrusts and chest thrusts might cause internal injuries. For these reasons, the person should be taken to a hospital emergency department even if he or she seems to be breathing well.

## Foreign Body Airway Obstruction (unconscious adult)

Whether the unconscious obstructed airway victim was found unconscious or became unconscious in front of you, the treatment is the same. Once "unresponsiveness" is established, activate EMS (call 9-1-1) or have a bystander activate EMS and call for an AED while you attend to the victim.

- 1. Position the victim on his/her back.
- 2. Open the airway using the head tilt/chin lift procedure.
- 3. Look, listen, and feel for breathing.
- 4. Look for a dislodged object prior to attempting breaths. Blind finger sweeps are not recommended.
- 5. If the victim is not breathing, attempt to give two rescue breaths.
- 6. If you are unable to breathe air into the victim, re-tilt the head and give two more breaths. You may not have tilted the head far enough back the first time.
- If both breaths do not go in and there is no pulse, begin CPR with 30 chest compressions and two rescue breaths learned earlier in this chapter.
- 8. Continue with CPR until the patient regains consciousness or EMS arrives.

#### Finger Sweep for a Visible Object Only (use gloves)

• Kneel beside the victim's head. Keeping the victim's face up, open the victim's mouth and grasp both the tongue and lower jaw between the thumb and fingers of the hand nearest the victim's legs. Lift the jaw. This draws the tongue away from the back of the throat and away from any object that may be lodged there. This action alone may help relieve the obstruction.



Finger Sweep

• With the jaw and tongue lifted, look for the object. If seen, slide the index finger of your other hand into the mouth down along the inside of the cheek and deep into the throat to the base of the tongue. Then use a hooking action to dislodge the object and move it into the mouth so that it can be removed. If the object comes within reach, grasp it and

remove it. Sometimes you may have to push the object against the opposite side of the throat to dislodge it and to lift it out. Be careful not to force the object deeper into the airway.

If your first attempts to clear the airway are unsuccessful, continue assisting the victim. The longer the victim goes without oxygen, the more the muscles will relax, making it more likely that you will be able to clear the airway.

If you are able to breathe air into the victim's lungs, **give two rescue breaths** as you did for rescue breathing. Then **check the pulse**. If there is no pulse, begin CPR. If there is a pulse, and the victim is not breathing on his or her own, continue rescue breathing.

If the victim should start breathing on his or her own, monitor breathing and pulse until EMS personnel arrive and take over. This means you should maintain an open airway; look, listen, and feel for breathing, and keep checking the pulse. Keep the victim still.

#### If You are Alone and Choking

If you are choking and there is no one around to help, you can do an abdominal thrust on yourself. Make a fist with one hand and place the thumb side on the middle of your abdomen slightly above the navel and well below the tip of your breastbone. Grasp your fist with your other hand and give a quick upward thrust. You can also lean forward and press your abdomen over a firm, non sharp object such as the back of a chair, railing, or sink. (ARC-Community p. 50)



## Infant / Child Rescue Breathing

Self Abdominal Thrust Technique

The principles of rescue breathing and first aid for choking are similar for adults and children. In this application, children are those 1-12 years old and infants are under 1 year old. There are some differences in technique because children are smaller and have faster breathing and heart rates. Procedures for both infants and children are presented in this section. Adult procedures should be used for children over the age of 12, but may need to be modified slightly if the child is small.

- 1. Check for Unresponsiveness Check to see if the child or infant is unconscious by gently tapping him and shouting, "Are you OK?"
- 2. Shout for Help

If the infant or child does not move or make a noise, shout for help. Have a bystander call 9-1-1.



Check for Unresponsiveness

NOTE: If you are the lone rescuer and did not see the infant or child collapse, then perform 2 minutes of CPR before calling 9-1-1, unless the infant or child is known to have a high risk for heart problems (Care First).

#### 3. Position the Victim

Position the child or infant on his or her back. Move the child as a unit so that the head, neck, and body do not twist. If the child is fairly large, follow the same procedure you would follow for positioning an adult victim.

#### 4. Open the Airway

Immediately open the airway using the head-tilt/chin-lift. Do not tilt the head back as far as you would for an adult.

Facing the child's head and neck from the side, place your hand that

**Opening the Airway** 

is closest to the child's head on the forehead. For infants, tilt the head gently back into a neutral position (so the external ear is level with the top of the infant's shoulder). Tilt the head slightly farther back for children.

Place the fingers of your other hand under the bony part of ٠ the lower jaw at the chin, and lift the chin. Do not close the mouth. Be careful not to obstruct the airway when lifting the chin. Do not push in on the soft parts under the chin.



#### 5. Check for Breathlessness

(Look, listen, and feel for breathing.) With the airway open, check to see if the infant or child is breathing.

• Place your ear just above the victim's mouth and nose. Look for the chest and abdomen to rise and fall, listen for breathing, and feel for air coming out of the child's nose and mouth. Do this for no more than 10 seconds.



Look, Listen and Feel

#### 6. Give Two Breaths (use a breathing barrier)

If the child is not breathing, give two breaths. Each breath should last 1 second. Give sufficient air to see the chest rise.

**Children:** While keeping the airway open with the head-tilt/chin-lift, seal your lips tightly around the child's mouth and pinch the nose shut with the thumb and index finger of the hand that is maintaining backward pressure on the forehead. Give two breaths slowly, pausing between each breath for you to take a breath. Watch the chest as you give the rescue breaths.

**Infants:** While keeping the airway open with head-tilt/chin-lift, seal your lips tightly around the infant's mouth and nose. Give two breaths slowly, watching for the chest to rise.

7. Check for a Pulse.

**Children:** Check the carotid pulse the way you would for an adult. While keeping the head tilted back with one hand on the forehead, find the Adam's apple with the index and middle fingers of the other hand. Then slide you fingers toward you into the groove between the windpipe and the muscle at the side of the neck.



Give 2 Rescue Breaths (child)



*Give 2 Rescue Breaths (infant)* 



Check for Pulse at Neck (child)

Press gently to feel for a pulse for at least 5 but no more than 10 seconds. "No pulse" requires chest compressions. A pulse of less than 60 beats per minute (bpm) requires chest compressions (AHA).

**Infants:** Check the brachial pulse on the inside of the upper arm using the index and middle finger of the hand which is not performing the head tilt. Press gently to feel for a pulse for at least 5 but no more than 10 seconds. "No pulse" requires chest compressions. A pulse of less than 60 beats per minute (bpm) requires chest compressions (AHA).



Check for Pulse at Brachial Artery (infant)

# 8. Begin Rescue Breathing (use a barrier to prevent disease transmission)

If you feel a pulse, and the child or infant is not breathing, begin rescue breathing. (If you do not feel a pulse, the child's heart has stopped and you must start CPR. Directions for CPR follow rescue breathing.)

**Children:** Keep the airway open using the head-tilt/chin-lift technique and give one breath every 3 seconds. Count "one, onethousand," (on two, one-thousand take a breath), then b-r-e-a-t-h-e into the victim for one second. You should give 12-20 breaths per minute. Recheck pulse every 2 minutes.

**Infants:** Keep the airway open using the head-tilt/chin-lift technique and give one breath every 3 seconds. Count "one, one-thousand," (on two, one-thousand take a breath), then b-r-e-a-t-h-e" into the victim for one second. You should give 12-20 breaths per minute. Recheck pulse every 2 minutes.



Begin Rescue Breathing (child)



Begin Rescue Breathing (infant)

Look for the chest to rise as you breathe into the child or infant. Between breaths, remove your mouth from the child or infant in order to take another breath.

After 2 minutes of rescue breathing, recheck the pulse.

- Keeping the child's head tilted back, feel for the pulse for at least 5 seconds but no more than 10 seconds (carotid pulse in children, brachial pulse in infants).
- If there is a pulse, check for breathing for 5 to 10 seconds. If breathing is present, monitor breathing and pulse closely. This means that you should maintain an open airway; look, listen, and feel for breathing; and keep checking the pulse.
- If there is no breathing, continue rescue breathing and keep checking the pulse every 2 minutes.
- As in the adult, continue to give rescue breathing until:
  - The victim begins breathing on his or her own
  - The victim loses circulation and you must begin CPR
  - Another trained rescuer takes over for you
  - Emergency medical service personnel arrive and take over
  - The scene becomes unsafe
  - You are too exhausted to continue

## Infant/Child CPR

If the victim is not breathing and does not have a pulse (or has a pulse under 60 bpm-AHA) then you must begin CPR. As you come upon the scene and it is safe to approach the victim, begin with the same assessment that you used for rescue breathing. When you find that the child or infant does not have a pulse, the next step is to find the proper hand position.

#### **Child**

- Place one hand in the center of the chest between the child's nipples.
- With child CPR, you can use the heel of one hand or you can use two hands, like in adult CPR. When using two hands, the fingers on the top hand can interlace the fingers of the bottom hand.



Placement of Hands and Chest Compressions

• Your shoulders should be over your wrists and the elbows should be locked.

#### <u>Infant</u>

- Find the space over the breastbone between the child's nipples.
- Place two fingers about one finger width below this spot being sure to stay above the xiphoid process.



Placement of Hands and Chest Compressions

#### **Begin Chest Compressions**

#### Child and Infant

- Push down 1/3 to 1/2 the depth of the chest.
- Release the pressure and allow the chest to return to its normal position, without raising hands off of the chest.
- Perform 30 chest compressions at a rate of 100 compressions per minute. A way to maintain an adequate compression rate is to use the count "1 and 2, and 3, and 4, and 5, etc."
- After 30 chest compressions, open the airway and deliver two rescue breaths.
- Return your hands to the chest and perform another 30 chest compressions and two rescue breaths.

#### **Recheck Pulse and Breathing**

After performing two minutes or 5 cycles of 30 compressions and 2 breaths (30:2 ratio), recheck the victim for signs of circulation.

- If there is no pulse then continue CPR at the 30:2 ratio, stopping to check for signs of breathing and circulation every two minutes or 5 cycles. Continue until EMS arrives.
- If there is a pulse but no breathing, begin performing rescue breathing at a rate of 12-20 breaths per minute remembering to check for a pulse frequently.
- If breathing and pulse (circulation) are both present, then place the victim in the recovery position and continue to monitor his/her breathing and circulation until EMS arrives.

# Foreign Body Airway Obstruction (conscious infant/child)

#### Conscious Child (Age 1-12 years)

For a child who is clutching his or her throat and appears to be choking, but is still coughing forcefully, do not interfere with the child's attempts to cough the object up. Encourage the child to keep on coughing.

If the cough becomes ineffective and/or there is increased difficulty breathing with a high-pitched noise while inhaling, do the following: Ask the child's parents for permission to help the child. Tell them who you are and state your level of training.

- 1. Have a bystander phone (9-1-1) or the local EMS system for help.
- 2. Ask the child "Are you choking?"
- 3. If the child can not answer, or shakes his head "yes," perform abdominal thrusts: (AHA). Stand or kneel behind the child and wrap your arms around his or her waist. Make a fist with one hand. Place the thumb side of your fist against the middle of the victim's abdomen, just above the navel and well below the lower tip of the breastbone. Grasp your fist with your other hand.
- 4. Keeping your elbows away from the victim, press your fist into the child's abdomen with a quick upward thrust. Be sure that your fist is directly on the midline of the child's abdomen when you press. Do not direct the thrusts to the right or to the left.
- 5. Repeat thrusts until the obstruction is cleared or until the child becomes unconscious. You should think of each thrust as a separate and distinct attempt to dislodge the object.
- 6. (ARC): Give 5 back blows followed by 5 abdominal thrusts.



Universal Choking Sign (child)



Abdominal Thrusting Position (child)



Back Blow Position (child)

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## Conscious Infant (age newborn to 1 year)

A combination of back blows and chest thrusts are used to relieve air-

way obstruction in conscious infants to avoid causing abdominal injury to infants as a result of abdominal thrusts.

If the infant looks as if he or she is choking and cannot cry, cough, or breath, shout for help and do the following: Ask the infant's parents for permission to help the child.

- 1. Have a bystander phone 9-1-1 or the local EMS system for help.
- 2. Give five back blows:
  - Place the infant face down along your forearm, with the head lower than the trunk.
  - Support the infant's head with your hand by firmly holding the jaw.
  - Rest your forearm on your thigh.
  - Deliver five back blows forcefully between the infant's shoulder blades with the heel of your other hand.

#### 3. Turn the infant over to give chest thrusts:

- Place your free hand and forearm along the infant's head and back so that the infant is sandwiched between your two hands and forearms. One hand should be supporting the neck, jaw, and chest from the front, while the other is supporting the back.
  - Step 2: Infant Flipping
- Turn the infant as a unit on his/her back.
- Rest the arm supporting the infant on your thigh. The infant's head should be lower than his/her trunk.

Back Blow (infant)



Step 1: Infant Flipping demonstration



demonstration

#### 4. Give 5 chest thrusts:

- Find the space over the breastbone between the child's nipples.
- Place two fingers between the nipple line.
- Compress the breastbone and then allow the breastbone to come up to its normal position. Do not lose contact with the breastbone. Do this five times.



Chest Thrust (infant)

5. **Continue** giving 5 back blows and 5 chest thrusts until the object is expelled or the infant loses consciousness.

#### When to Stop

Stop giving back blows and thrusts immediately if the object is coughed up or the infant or child begins to breathe or cough. Watch the child or infant and make sure that the object has been removed from the airway and that the he or she is breathing freely again. Even after the object is coughed up, the child or infant may have problems in breathing that are not clear to you. The child should be taken to a hospital emergency department even if he or she seems to be breathing well.

# Foreign Body Airway Obstruction (unconscious infant/child)

First aid procedures for an unconscious child or infant both begin with the same steps as conscious infant/child rescue breathing.

Do the first six steps the same way you did them for conscious infant/ child rescue breathing:

- 1. Check for unresponsiveness.
- 2. Shout for help; tell someone to phone 9-1-1 or the local EMS system.

- 3. Position the victim on his/her back.
- 4. Open the airway.
- 5. Look, listen, and feel for breathing.
- 6. Attempt to give two breaths.



Check Airway (child)

- If you are unable to breathe air into the child or infant, reposition the head and give two more breaths. You may not have tilted the child's head far enough back the first time.
- 8. If you are still unable to breathe air into the infant or child do the following:
- 9. Infant: Give 30 compressions and 2 rescue breaths in the same manner you gave CPR (see above) except you need to look for an object in the infant's mouth each time, before giving the breaths.
- 10. **Child:** Give 30 compressions and 2 rescue breaths in the same manner you gave CPR (see above) except you need to look for an object in the child's mouth each time, before giving the breaths.



Placement of Hands and Chest Compressions



Placement of Hands and Chest Compressions

- The child should be positioned face up on his or her back on a firm surface.
- 11. Foreign Body Check: Following chest thrusts, open the victim's mouth. Insert your thumb into the mouth and grasp both the tongue and the lower jaw between the thumb and fingers and lift upward. This action draws



Finger Sweep (child)

the tongue away from the back of the throat and may, itself, partially relieve the obstruction. Look for the object. **Attempt to remove the object only if you can see it**. Since infants and children have smaller mouths than adults do, inserting a finger



Finger Sweep (infant)

into the mouth may push a foreign body back into the airway, causing further obstruction.

- 12. Open the airway with the head-tilt/chin-lift and give two breaths.
- 13. Continue giving chest thrusts, followed by foreign body check, opening the airway, and giving two breaths until the obstruction is removed or EMS personnel arrive and take over.

If you are able to breathe air into the child's lungs, give two slow breaths as you did for rescue breathing. Then **check the pulse**. If there is a pulse and the child is not breathing on his or her own, continue rescue breathing. If there is no pulse begin CPR.

If the child should regain breathing and circulation, place them in the recovery position and monitor breathing and pulse until EMS personnel arrive and take over. This means you should maintain an open airway; look, listen, and feel for breathing; and



Recovery Position (child)



Recovery Position (infant)

keep checking the pulse. Keep the victim still.

# **Emergency Preparedness** (Quick Reference Guide)

## WHAT TO DO IN CASE OF:

## FIRE

If the fire is inside your space: Call 9-1-1 from a safe location. Use an extinguisher only if the fire is small and it is safe to do so. Warn others in the immediate area and on your entire floor. Evacuate using stairwells – do NOT use elevators. Close all doors behind you. Notify the building manager or security (if applicable).
<ul> <li>If the fire is outside your space:</li> <li>Feel the door before evacuating – do NOT open hot doors.</li> <li>If trapped, seal the bottom of the door to help prevent smoke from entering.</li> <li>Call 9-1-1 to report your exact location in the building.</li> <li>If the door is cool, open it carefully and evacuate if it is safe to do so.</li> <li>If you encounter heavy smoke, drop to your hands and knees – stay near the floor and follow the wall to the nearest exit.</li> </ul>
<ul> <li>Fire Prevention Tips</li> <li>To ensure ease of evacuation in an emergency, keep all hallways and stairwell exits free of boxes and trash.</li> <li>Blocking fire doors is a direct violation of the Fire Code and will allow smoke and fire to spread throughout the floor. Do not block fire doors at any time.</li> <li>Use care when using microwave ovens to prevent burning food or contents.</li> <li>Make sure all electrical equipment is turned off before you leave at the end of the day.</li> <li>Make sure electrical cords are in good condition. Inspect them periodically and replace them, or report frayed cords.</li> <li>Do not bypass grounded plugs.</li> </ul>

## FIRE (cont.)

- Use surge-protected power strips in place of extension cords.
- Do not let paper accumulate in your office or in storage areas.
- Pay special attention to housekeeping in areas where discarded paper accumulates, such as storage areas, copy rooms, or break rooms.
- Store all flammable liquids in a cool, safe location.
- Do not store large quantities of flammable solvents.

#### Building Evacuation and Assembly Area

Establish and practice an emergency evacuation plan. Designate an assembly area for all personnel and patients to meet.

## **MEDICAL EMERGENCY**

- Call 9-1-1.
- Provide your name, exact location, and phone number.
- Briefly describe the problem and location of the victim.
- Stay calm and keep the victim as warm and comfortable as possible without moving him/her.
- Administer first aid to the degree you are trained.

## **POWER FAILURE**

- Notify all those in the building of the power outage.
- Notify the company that supplies electricity in your building to report failure and to determine if it is a widespread blackout.
- Turn off all equipment to reduce overload and prevent damage when power is restored.
- Emergency lighting in stairwells and throughout the common areas should activate. Raise window blinds to let in outside light.
- Stay where you are unless told to evacuate; proceed calmly and carefully.
- If a circuit trips and it is an isolated outage, notify property management so an appropriate engineer/electrician can be contacted.

#### TIPS to prevent isolated power failures:

- · Do not overload circuits with excess equipment.
- Provide additional electrical capacity as necessary.

## **BOMB THREAT**

- If you receive a threat, try to calmly ask the following questions:
  - -When will it explode?
  - -Where is the bomb?
  - -What kind of bomb is it?
  - -What does it look like?
  - -What is your name?
  - -Where are you calling from?
  - -Why was the bomb placed?
- Pay close attention to the caller's voice (age/sex, tone, demeanor, distinguishing characteristics [accent, slurring, etc.]), background sounds, and exact language.
- Try to keep the caller on the line and gather as much information as you can.
- Bomb threats must be reported immediately to 9-1-1.
- Follow directions of police or building security. Occupants may be asked to search their own offices for anything unusual.
- Take your personal belongings (bags, purses, briefcases, etc.) with you if asked to evacuate.
- Do NOT touch any suspicious objects or packages.

## **CIVIL DISTURBANCE or SECURITY THREATS**

In the event of any civil disturbance (riot, demonstration, or picketing), notify the appropriate police agency and security.

- Remain inside the center and secure doors as necessary it may be unsafe to leave the building.
- Avoid confrontation with demonstrators.
- Follow directions of police or security.

## CIVIL DISTURBANCE/SECURITY THREATS (cont.)

- Inside the workplace, if a person's behavior becomes inappropriate or violent or you feel you are in imminent personal danger, leave the area if possible call 9-1-1.
- If an armed person enters your work area escape if possible otherwise, take cover or hide and look for a chance to escape.

#### TIPS for personal safety:

- Learn to identify specific behaviors that may lead to a possible threat.
- Trust your instincts.
- Take all threats seriously.
- Try to create physical space between you and any threatening person.
- Know your surroundings and alternate escape routes.

## EARTHQUAKES

- "Duck, cover and hold" in place under your desk, table or other sturdy object; or stand in an interior doorway and brace yourself against the frame.
- Face away from any windows.
- Stay clear of tall objects that may topple over watch for falling objects.
- Stay inside! Do NOT evacuate unless directed to do so.

#### AFTER THE INITIAL SHOCK HAS SUBSIDED:

- Remain calm and be prepared for aftershocks.
- Aid the injured and check for trapped people.
- Account for all occupants.
- Check area for obvious hazards and damage; evacuate only if area is unsafe.
- Use phones only in case of immediate life-threatening emergency.
- Do NOT light matches, cigarettes, candles, or use any open flame.
- · Do NOT turn on or off any electrical equipment or lighting.
- Report conditions to emergency management or security and follow directions.

## EARTHQUAKES (cont.)

TIPS for earthquake preparedness:

- Secure all large furniture to the wall.
- Do not place furniture where it could fall and block exits.
- Do not place large or heavy objects on shelves above your head.
- Keep supplies on hand: food and water for three days; first aid kit; flashlights, radios and spare batteries; and essential medications.