

## Breathing Emergencies and CPR

Who needs to be trained to help a person who is having a breathing emergency? You do. If you have children, drive a car, shop at the mall, or go anyplace where a person may be in a life-threatening situation, you need to know how to respond. An added benefit is the confidence you will have when you know you can help a person when it matters most.

The guidelines presented in this book are not meant to replace formal training from a certified instructor. They are here for you to use to refresh your memory between trainings or to read aloud to a person who is performing a rescue procedure. (Note, however, that your first responsibility as a helper is to call 911 or seek emergency services and to make the area safe for the victim and the rescuer.)

### Rescue Breathing and CPR

**WARNING: Improper CPR or CPR performed on a person whose heart is still beating can cause serious injury. Never perform CPR unless:**

- **Breathing has stopped.**
- **The victim does not have signs of circulation, such as normal breathing, coughing, or movement, in response to rescue breaths.**
- **No one with more training in CPR is present.**

Be prepared: Take a CPR course from the American Red Cross or the American Heart Association.

For basic life support, think **ABC**: **A**irway, **B**reathing, and **C**irculation, in that order. You must establish an open airway to start breathing, and you must give rescue breathing before you can begin the chest compressions needed if the victim's heart has stopped.

CPR Ready Reference			
	Adults	Children	Infants
If the victim is not breathing but has signs of circulation, such as movement in response to rescue breaths:	Give 2 breaths every 15 seconds.	Give 1 breath every 3 seconds.	Give 1 breath every 3 seconds.
If the victim is not breathing and does not have other signs of circulation, locate the compression landmark:	Trace the ribs into the notch; place 2 fingers on the sternum.	Same as for an adult.	1 finger-width below nipple line.

Do chest compressions with:	2 hands stacked; heel of 1 hand on sternum	Heel of 1 hand on sternum	2 or 3 fingers on sternum
Rate of compressions per minute:	80 to 100	100	100
Compression depth:	1 1/2 to 2 inches	1 to 1 1/2 inches	1/2 to 1 inch
Ratio of compressions to breaths:	15:2	5:1	5:1
Guidelines from the American Heart Association			

### Step 1: Check for consciousness.

Tap or gently shake the victim and shout, "Are you okay?" If the victim does not respond, roll the victim onto his or her back, unless there is a possible spinal injury. If the victim may have suffered a spinal injury, gently roll the head, neck, and shoulders together as a unit until the victim is on his or her back.

When a victim does not respond:

- **Adults and children age 9 and older: Call 911 or seek other emergency services immediately.** Then give rescue breathing (and CPR if there are no signs of circulation).
- **Children age 8 and younger:** Give 1 full minute of rescue breathing (and CPR if there are no signs of circulation); then **call 911 or emergency services.**

### Step 2: Open the airway.

- Kneel next to the victim. Clear any foreign material from the mouth with your fingers.
- Place one hand on the victim's forehead and tilt the head back gently.
- Place the fingers of your other hand under the chin and lift to pull it forward. See illustration below .



**Airway: Tilt the head back and lift the chin.**

**For an infant:** Use care not to tilt the head back too far.

- Look to see if the victim's chest is rising and falling. Listen and feel for air moving out of the mouth.
- Sometimes, just opening the airway will allow the victim to breathe. If the victim does not start breathing, begin rescue breathing immediately.

**Step 3: Begin rescue breathing.**

- Pinch the victim's nostrils shut with your thumb and forefinger (of the hand on the forehead). With your other hand, continue tilting the chin forward to keep the airway open.
- Take a deep breath and place your mouth over the victim's, making a tight seal. See illustration below.

**For an infant:** Place your mouth over the baby's mouth and nose.

- Slowly blow air in until the victim's chest rises. Take 1 1/2 to 2 seconds to give each breath. Remove your mouth from the victim's and take a deep breath between rescue breaths. Allow the victim's chest to fall and feel the air escape.
- Give 2 full breaths; then check for circulation.



**Breathing: Blow air in slowly;  
look to see if chest rises.**

**Step 4: Check for circulation.**

Check for signs of circulation, such as normal breathing, coughing, or movement, in response to rescue breaths. If there are no signs of circulation, begin chest compressions. See [Step 5](#).

If signs of circulation are present, continue to give rescue breaths until help arrives or until the victim starts breathing on his or her own. If the victim starts breathing again, he or she still needs to be seen by a health professional.

Give rescue breaths:

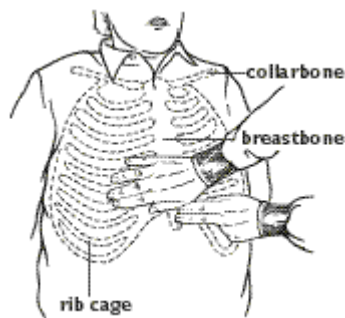
- Adults (age 9 and older): 2 breaths every 15 seconds.

- Infant or child through 8 years: 1 breath every 3 seconds.

**Step 5: Begin chest compressions.**

**Infants and children:** Give 5 chest compressions, then 1 breath. Repeat 20 times (1 minute) and check for signs of circulation. If there is still no breathing, coughing, or movement in response to the rescue breaths, continue rescue breathing and chest compressions until help arrives or until the victim's circulation and breathing return.

**For adults:** Kneel next to the victim. Use your fingers to locate the end of the breastbone (sternum), where the ribs come together. Place 2 fingers at the tip of the breastbone. Place the heel of one hand directly above your fingers. See illustration below.



**Put your hand 2 fingers' width above the bottom of the victim's breastbone.**

- Place your other hand on top of the one that is in position. Do not allow your fingers to touch the chest, because that may damage the ribs.
- Straighten your arms, lock your elbows, and center your shoulders directly over your hands.
- Press down in a steady rhythm, using your body weight and keeping your elbows locked. The force from each thrust should go straight down onto the sternum, compressing it 1 1/2 inches to 2 inches. It may help to count "one and two and three and four..." up to 15 compressions. Give 1 downward thrust each time you say a number. Lift your weight, but not your hands, from the victim's chest each time you say "and."
- After 15 compressions, open the airway with the head tilt/chin lift, and give 2 full, slow breaths, taking 1 breath in between.
- Repeat the 15 compressions - 2 breaths cycle 4 times. Check for signs of circulation again. If there is still no breathing, coughing, or movement in response to the rescue breaths, continue rescue breathing and chest compressions until help arrives or the victim's circulation and breathing return.



**Chest Compressions: Keep your shoulders directly over your hands with your elbows straight as you give chest compressions.**

**For an infant:** Place 2 fingers on the sternum, about 1 finger-width below an imaginary line connecting the nipples. Press with gentle force, compressing the sternum about 1/2 inch.

**For a child:** Using the heel of one hand, press with less force, compressing the sternum 1 to 1 1/2 inches .

**For infants and children:** Give 5 chest compressions, then 1 breath. Repeat 20 times (1 minute) and check for signs of circulation. If there is still no breathing, coughing, or movement in response to the rescue breaths, continue rescue breathing and chest compressions until help arrives or until the victim's circulation and breathing return.

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