

# When and How to Perform CPR with Chest Compressions

In an emergency situation, it can be easy to move more quickly and erratically than you usually do. Performing CPR in a classroom with a manikin is different from a real-life emergency, so keeping these steps and numbers in mind will help you help others in life-saving situations.

Adults 12 and Above

## Compression

Compressions are performed to manually restore blood flow, using your hands in a specific rhythm in a specific way on a victim's chest.

When performing chest compressions on an adult, use these steps:

1. Kneeling next to the victim, place one hand over the center of their chest (between the nipples) with your other hand on top.
2. Keeping your elbows straight and your shoulders in line, push straight down on the chest with all your body weight.
3. **Compress to a depth of 2-2.4 inches, or about the length of 3 pennies.**



Allow the chest to recoil fully after each compression.

4. Push hard at a rate of 100 to 120 beats per minute.

## Airway

**After 30 compressions**, open the victim's airway using the head-tilt, chin-lift maneuver.

1. Place your palm on the victim's forehead and gently tilt their head back.
2. With your other hand, gently lift the chin forward to open the airway.

## Breathing

After opening the airway, pinch the nostrils shut and seal the victim's mouth with yours.

1. Give one rescue breath, one second long. Look for the chest to rise.
2. If the chest rises, give a second, second-long breath.
3. After the first rescue breath, watch to see if the infant's chest rises. If yes, give a second rescue breath. If not, lift the head and tilt the chin back (*see: Airway*) and try again.
4. Continue at a cycle of 30 chest compressions, alternating with two rescue breaths.
5. Continue this cycle until emergency help arrives.

### Pro Tip:

When performing chest compressions, it helps to have a song in mind of a similar BPM. "Stayin' Alive", by the Bee Gees, is a popular choice.



### Compression

When performing chest compressions on a child, use these steps:

1. Kneeling next to the victim, **place both hands on the lower half of the victim's breast bone. Use one hand if the child is very small.**
2. Using the heels of your hands (or one hand, if the child is small), press straight down on the chest with most of your body weight.
3. Compress to a depth of 2 inches, or the length of 2 quarters. Allow the chest to recoil fully after each compression.
4. Push hard at a rate of 100 to 120 beats per minute.

### Airway

**After 30 compressions**, open the child's airway using the head-tilt, chin-lift maneuver.

1. Place your palm on the child's forehead and gently tilt their head back.
2. With your other hand, gently lift the chin forward to open the child's airway.

### Breathing

After opening the airway, pinch the nostrils shut and seal the child's mouth with yours.

1. Give one rescue breath, one second long. Look for the chest to rise.
2. If the chest rises, give a second, second-long breath.
3. After the first rescue breath, watch to see if the infant's chest rises. If yes, give a second rescue breath. If not, lift the head and tilt the chin back (see: Airway) and try again.
4. Continue this cycle until emergency help arrives.

When performing chest compressions on an infant, use these steps:

1. Draw an imaginary line between the infant's nipples. Place two fingers of one hand below this line.
2. **Gently compress the chest to about 1.5 inches, or the length of an AirPods** or standard safety pin. Allow the chest to decompress fully after each compression.
3. Push firmly at a rate of 100 to 120 beats per minute.



**After 30 compressions**, open the infant's airway using the head-tilt, chin-lift maneuver.

1. Place three fingers on the infant's forehead and gently tilt their head back.
2. With your other hand, gently lift the chin forward to open the airway.

Unlike adult or child rescue breaths, **when performing rescue breaths on an infant, you'll need to cover their nose and mouth and breathe for them.**

1. Instead of using your lungs to force air in, fill your cheeks and deliver gentle puffs of air.
2. **Give rescue breaths two at a time, one second per breath.**
3. After the first rescue breath, watch to see if the infant's chest rises. If yes, give a second rescue breath. If not, lift the head and tilt the chin back (see: Airway) and try again. Continue this cycle until emergency help arrives.
4. Continue CPR until movement or emergency medical personnel take over.



## **CPR Compression Depth FAQ**

### **Q: What if I'm not trained in CPR?**

A: If you haven't been trained in CPR, you can still provide what's known as "hands-only" CPR. The International Liaison Committee on Resuscitation (ILCOR) and the American Heart Association recommend "hands-only" CPR for adults who are not trained to provide rescue breaths. You'll also want to make sure emergency assistance is contacted.

Of course, the best way to solve this problem is to get trained in CPR! You'll increase your skills, confidence, and lifesaving abilities.

### **Q: What if I'm trained in CPR and ready to help?**

A: Great! After calling for emergency assistance, first check to see there is a pulse and breathing. If you can't detect either after 10 seconds, begin chest compressions as indicated above.

### **Q: What if I'm trained in CPR, but it's been a while?**

A: If you've received CPR training, but not recently enough to feel confident in your abilities, performing chest compressions at a rate of 100 to 120 beats per minute (to mimic a healthy heartbeat) is an effective way to help - especially if the alternative is not providing help. Make sure someone contacts emergency assistance as well.

ProTrainings provides online certification that happens on your schedule and at your pace. So, if you're feeling rusty, it might be time for a recert!