CARDIOPULMONARY RESUSCITATION (CPR)

A person in cardiac arrest (no heartbeat) is not getting oxygen delivered to the brain and other vital organs. CPR combines external chest compressions with rescue breaths to provide oxygen to the brain to keep it alive.

Rescue breaths provide oxygen to the lungs. Chest compressions squeeze the heart, moving blood from the heart to the lungs to pick up oxygen. Between each compression the heart refills with blood. Repeated compressions deliver oxygen throughout the body. Good quality chest compressions are the most important part of CPR.

CHEST COMPRESSION TECHNIQUE

- Place the heel of one hand in the center of the chest on the breastbone.
- Place the heel of the other hand directly on top of the first.
- Lift or interlace your fingers.
- Position your shoulders directly over your hands.
- Keep your arms straight.
- Push straight down.

QUALITY COMPRESSIONS

- **Push Hard**
  Push downward at least 2 inches for an adult

- **Push Fast**
  Between 100-120 compressions per minute

- **Minimize Interruptions to Compressions**
  Try not to stop compressions for more than 10 seconds

- **Do Not Lean on the Chest**
  Allow the chest to rise fully between compressions
CAB stands for Compressions, Airway, Breathing. Starting CPR in this sequence gives a victim of sudden cardiac arrest the best chance of survival.

**CHECK & CALL**

If you see someone drop or on the ground and not moving, **check for response**. Tap his shoulder and shout, “Are you okay?” Look for any response such as blinking, moaning or moving. If no response, **yell for help**.

- If a bystander is available, tell him to call 911 and get the AED.
- If you are alone, call 911 and get the AED yourself.
- If a cell phone is available, use it to call 911 and place it on speaker. Follow the dispatcher’s instructions.

**Check for breathing.** Scan the face and chest for 5 to 10 seconds. If the person is not breathing or only gasping, immediately begin compressions. **Gasping is not breathing!**

**COMPRESSIONS**

Position the victim face up on a firm, flat surface. Quickly move clothing out of the way. Immediately **provide 30 chest compressions**.

Push hard and fast in the center of the chest.

- **Depth:** At least 2 inches on an adult
- **Rate:** Between 100-120 compressions per minute
- **Do not lean on the chest** between compressions
- **Minimize interruptions** to compressions

It should take between 15-18 seconds to provide 30 chest compressions.
**AIRWAY**

After 30 compressions, **open the airway** to give rescue breaths.

Place one hand on the forehead and apply firm, backward pressure. Place the fingers of your other hand on the bony part of the jaw and lift the chin. When you tilt the head back and lift the chin, it lifts the tongue off the back of the throat so it does not block the airway.

When lifting the chin, do not press on the throat or the soft tissue under the chin.

**BREATHING**

**Give 2 rescue breaths for 1 second each breath.** Provide just enough air to make the chest rise.

For mouth-to-mouth breaths, open the airway and pinch the nose. Inhale a regular-sized breath, seal your mouth over the victim’s mouth and give two breaths. Watch for chest rise. Lift your mouth between breaths. After two breaths, immediately resume compressions.

If the chest does not rise with the first breath, reopen the airway and **try to give just one more breath**, then resume compressions.

**CPR BARRIERS**

The risk of catching a disease while giving rescue breaths is extremely low. Many people, however, are uncomfortable giving mouth-to-mouth rescue breaths. **CPR barriers may prevent exposure to a victim’s blood or body fluids.**

A **face mask** has a filtered valve that allows air to enter but prevents fluid backflow. Select the correct size mask to create a seal and give effective breaths. Apply the mask with the narrow end on the bridge of the nose. Press the mask firmly to the face and lift the chin to open the airway.

A **face shield** contains a built-in, one-way valve or filter. Place the shield with the valve or filter over the victim’s mouth. Pinch the nose to give breaths.