

## CPR/AED Key Points

*Based on the National CPR Foundation Training Program*

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### What is CPR?

- **CPR (Cardiopulmonary Resuscitation)** is a lifesaving technique used in emergencies such as **drowning, cardiac arrest, stroke, or heart attack**, where the victim's heartbeat or breathing has stopped.
- **Purpose:** To maintain **blood flow and oxygen** to vital organs until professional help arrives.

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### Why CPR Matters

- Without oxygenated blood, **brain damage can begin in just 4 minutes.**
- **CPR can double or triple** a person's chance of survival.

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### What is an AED?

- **AED (Automated External Defibrillator):**
  - A portable device that delivers an **electric shock** to restore a normal heart rhythm.
  - Used **after or during CPR** if no heartbeat is detected.
  - **Voice-guided prompts** walk the rescuer through the process.

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### Steps to Take in an Emergency

1. **Check for safety** – Make sure the scene is safe.
2. **Check responsiveness** – Tap and shout, “Are you okay?”
3. **Call 911** – If no response, **put phone on speaker.**

4. **Check breathing and pulse** – Take no more than **10 seconds**.
  5. **Begin CPR** if:
    - No pulse
    - Not breathing or only gasping
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## CPR Basics

### Chest Compressions:

- **Hand Placement:** One hand on top of the other, **heel of the hand on the center of the chest (breastbone)**.
- **Compression Rate:** 100–120 compressions/minute.
- **Compression Depth:**
  - Adults: **2 inches**
  - Children: **about 2 inches**
  - Infants: **1.5 inches**
- **Songs to match rhythm:** “Stayin’ Alive” or “The Imperial March.”

### Rescue Breaths (Compression Ventilation):

- **Open the airway** using the **head-tilt, chin-lift method**.
  - **Give 2 breaths**, watching for **chest rise**.
  - **Breath rate:** About **1 breath every 10 seconds (6 per minute)**.
  - **Alternate 30 compressions with 2 breaths (30:2 ratio)**.
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## Age-Specific CPR Techniques

### Adults (Puberty and older):

- Standard **30:2** ratio of compressions to breaths.
- Full strength compressions.

### Children (1 year to puberty):

- Use **one or two hands** depending on size.
- Still use **30:2** ratio (or 15:2 for two-rescuer CPR).
- Avoid pressing too deeply — risk of injury.

### Infants (under 1 year):

- Use **two fingers** (or thumbs for two-rescuer CPR).
- Compression depth: **1.5 inches**.
- Be very gentle; their bodies are fragile.

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## AED Overview

### Steps for Using an AED:

1. **Turn it on.**
  2. **Expose the chest** and apply pads (one upper right chest, one lower left ribs).
  3. **Follow audio instructions.**
  4. **Stand clear** while analyzing heart rhythm.
  5. **Deliver shock if advised**, then resume CPR immediately.
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## Good Samaritan Law

- Protects those who provide emergency care **in good faith**.
- You are legally covered as long as:
  - You act responsibly.
  - You don't expect compensation.
  - You stay within your scope of training.

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## Quick Summary

Concept	Key Point
CPR Purpose	Maintain blood and oxygen flow to vital organs.
Compression Rate	100–120 per minute.
Compression Depth	Adults: 2", Children: ~2", Infants: 1.5".
Ventilation Rate	1 breath every 10 seconds (6 per minute).
AED Use	Shock the heart back into rhythm if CPR alone doesn't work.
Age Differences	Adjust hand position and pressure for child and infant CPR.
Legal Protection	Good Samaritan Law offers liability protection when acting responsibly.