

CPR

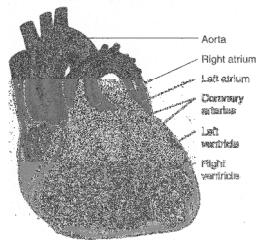
Adult
Child
Infant

Professional Rescuer CPR

- ✦ To maintain breathing and heartbeat, perform rescue breathing and chest compressions together.
- ✦ 70% of cardiac arrest pts are in V-fib.

Circulatory System

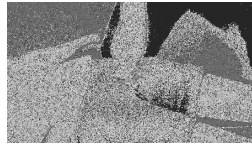
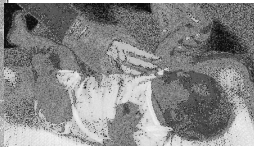
- ✦ Consists of heart, blood vessels, blood
- ✦ Heart pumps blood to lungs and rest of body.



Major Arteries



Major Arteries



⌘ Cardiac Distress

- Occurs when the heart is having pxs pumping

⌘ Cardiac Arrest

- Occurs when the heart stops contracting
- No blood is pumped through the blood vessels.

(1 of 2)

Cardiac Arrest

⌘ May be caused by:

- Stroke
- Untreated respiratory arrest
- Medical emergencies (eg, electrical shock, epilepsy, poisoning)
- Drowning
- Suffocation
- Trauma or shock from massive blood loss

(2 of 2)

Sx of a heart attack

⌘ Persistent chest pain

- Pressure, squeezing, tightness, aching

⌘ Difficulty breathing

⌘ Changes in pulse rate

⌘ Skin appearance

- Pale, ashen, bluish, sweaty

When to Start CPR

- ✦ CPR should be started on all nonbreathing, pulseless patients, except when reliable signs of death exist:

Care for Heart Attack

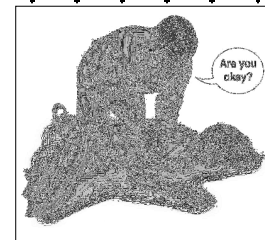
- ✦ Recognize Sx of HA
- ✦ Convince victim to stop activity
- ✦ Help them rest comfortably
- ✦ Administer O2
- ✦ Call for more advanced personnel
- ✦ Assist w/ medications
- ✦ Monitor vitals
- ✦ Prepare to give CPR
- ✦ Advanced Cardiac Life Support (ACLS)

Adult CPR

1. Check victim's responsiveness
2. Call 9-1-1
3. Open airway
4. Check breathing (look, listen, & feel)
5. Give breathes
5. Check circulation
6. Perform the SKILL
7. Recheck circulation after 1 minute

Check Responsiveness

- ✦ Tap victim on shoulder and ask "Are you okay?"
- ✦ **DO NOT** shake victim



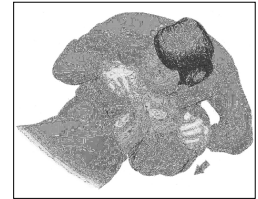
Activate EMS

- ✦ If victim is unresponsive, activate EMS immediately
- ✦ Instruct a bystander to call
- ✦ If you are alone, you must activate EMS before performing any other step
- ✦ If unresponsive & victim is breathing, place in recovery position



Open the Airway

- ✦ Head tilt – Chin lift
- ✦ Remove any visible objects from mouth
- ✦ If victim has possible spinal injury, use jaw thrust without a head tilt



Check for Breathing

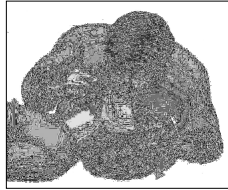
Look, listen, and feel for breathing



Give 2 Breaths

1. Make certain airway is open
2. Pinch victim's nostrils
3. Take a deep breath
4. Make a tight seal with your mouth around victim's

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5. Slowly breath air into victim's mouth until victim's chest rises
 6. Remove your mouth to let the air come out and turn your head away
 7. Repeat one more breath



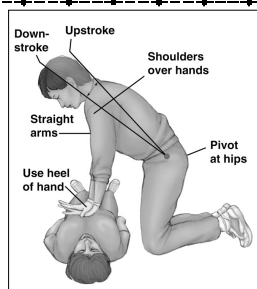
Check Pulse

If there is a pulse, continue Rescue Breathing

If NO pulse, begin CPR

Chest Compression

- ✳ Place heel of 1 hand on the center of the chest; b/t the nipples



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- ✳ Depress chest downward 1 1/2 to 2 inches for adults

- ✳ If you lose your hand position, relocate; don't guess

Recheck Circulation

- ※ Cycle =
- ※ After five complete cycles (about 2 minutes), check for signs of circulation for 10 seconds
 - ◆ If not breathing and no other signs of circulation exist, continue CPR
 - ◆ If breathing, place victim in recovery position

When to Stop CPR?

- ※ Victim is revived
- ※ Replaced by another trained person or physician assumes responsibility
- ※ Exhaustion
- ※ Scene becomes unsafe
- ※ Physician direction to stop

Why CPR May Fail to Resuscitate

- ※ Delay in starting
- ※ Improper techniques
- ※ Terminal or unmanageable disease

Differences between adult & child CPR

	Calling	Pulse	Hand position	Hand
Adult				
Child 1 to 12 or 14 y.o.				
Infant				

※ 30 compression & 2 breaths for adults and children

※ Sternum compressed

- ◆ Adults 1.5 – 2”
- ◆ Children 1 – 1.5”

※ Hand placement

- ◆ Child – hand must remain on the forehead

※ DO NOT use AED on an infant

Child CPR



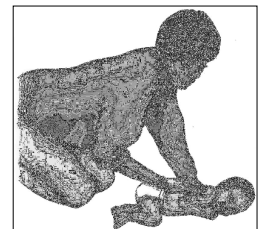
- Locate top and bottom of sternum.
- Place the heel of your hand in the center of the chest, in between the nipples.

Infant

CPR

Infant Basic Life Support

1. Check responsiveness
2. Activate EMS
 - ※ If alone, call after 1 minute of resuscitation
3. Open airway
4. Look, listen, & feel for ~ 10 seconds



Infant Basic Life Support

5. If not breathing, give two slow breaths
- ✳ Place your mouth over victim's mouth and nose, or nose only
 - ✳ Give 2 slow breaths

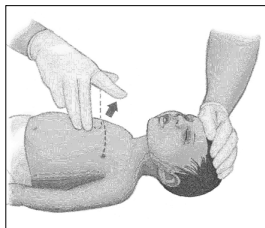


Infant Basic Life Support

- ✳ Watch chest to see if breaths go in
 - Allow chest to deflate after each breath
 - ✳ If breaths do not go in:
 - Retilt head and try again
6. Check for pulse for ~ 10 seconds – use brachial
7. If no breathing, no pulse begin CPR

Infant Basic Life Support (5 of 7)

- Begin CPR
1. Place 2-3 fingers in the center of the chest
 2. Compress chest 30 times
 - 3.



Infant Basic Life Support

4. Do smooth compressions, counting "One, two, three, four, five"
 5. Give two slow breath
- ✳ Continue cycle of 30 compressions and 2 breath for 2 minute, then check for signs of circulation

Infant Basic Life Support (7 of 7)

- ✦ If signs of circulation absent, continue CPR with chest compressions
- ✦ If present, but no breathing, give rescue breathing
- ✦ Give CPR until
 - ◆ Infant revives
 - ◆ Trained help arrives and relieves you
 - ◆ You are exhausted

2 person CPR

Adult, Child & Infant

Why do 2 person CPR?

- ✦ More effective
- ✦ Less tiring

2 Person CPR –Adult

- ✦ Breathing rescuer – does counting, checks pulse, & tests effectiveness of compressions
- ✦ If 2nd rescuer is joining in – 1st one completes cycle & then #2 jumps in

Changing positions

- * Compression person says change positions
- * Breathing person finishes breaths
- * The person who moved to the head; rechecks for a pulse – there is no pulse – continue CPR

2 person CPR - Infant

- * 1 rescuer grasps infant around body
- * 2 thumbs encircling hands on lower ½ of sternum
- * 2nd person does breathing
- * After 1 minute reassess

Signs of Effective CPR

Complications of CPR

- * Broken ribs
 - ◆ Check and correct your hand position.
- * Gastric distention
 - ◆ Caused by too much air blown too fast and too forcefully into stomach
- * Regurgitation
 - ◆ Be prepared to deal with it!