BASIC LIFE SUPPORT

CPR for Lay Rescuer

LIFE SUPPORT SYSTEMS

Basic Life Support

Advance Life Support

Prolonged Life Support

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Life Support

- **Basic Life Support**

  an emergency procedure that consists of recognizing respiratory or cardiac arrest or both and the proper application of CPR to maintain life until a victim recovers or an advanced life support is made available

Life Support

- **Advanced Life Support**, the use of special equipment to maintain breathing and circulation for the victim of a cardiac emergency

- **Prolonged Life Support**, for post resuscitative and long term resuscitation

Chain of Survival

EARLY ACCESS

EARLY CPR

EARLY DEFIBRILLATION

EARLY ADVANCE CARE

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Chain of Survival

- **Early Access**, It is the event after the patient collapses, until the arrival of the Emergency Medical Services personnel to provide care

- **Early CPR**, If started immediately after the victim collapsed, the probability of survival approximately doubles when it is initiated before the arrival of the EMS

Chain of Survival

- **Early Defibrillation,** It is most likely to improve survival. It is the key intervention to increase the chances of survival of patients of cardiac arrest in the pre-hospital setting.

- **Early Advanced Care,** If provided by highly trained personnel like paramedics, provision of advanced care outside the hospital would be possible

Basic Life Support

Choking

Foreign Body Airway Obstruction Management

FOREIGN BODY AIRWAY OBSTRUCTION MANAGEMENT

- Causes of Obstruction

1. Improper chewing of large pieces of food
2. Excessive intake of alcohol
3. The presence of loose upper & lower dentures
4. For children- running / playing while eating
5. For smaller children of “hand-to-mouth” stage left unattended

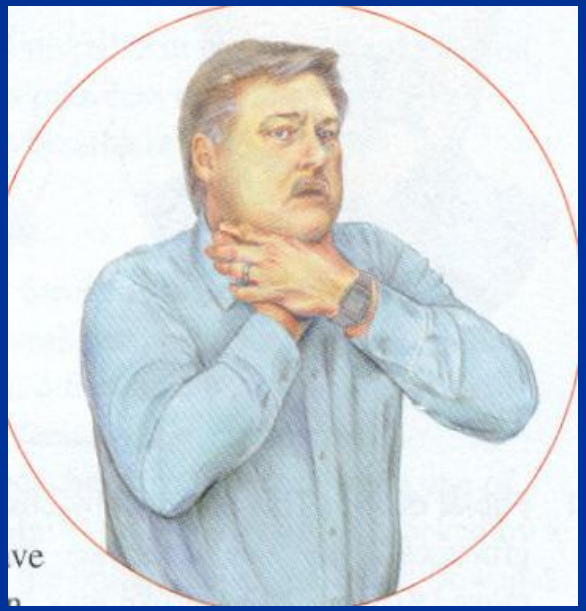
- **Two types of Obstruction**

1. Anatomical
2. Mechanical

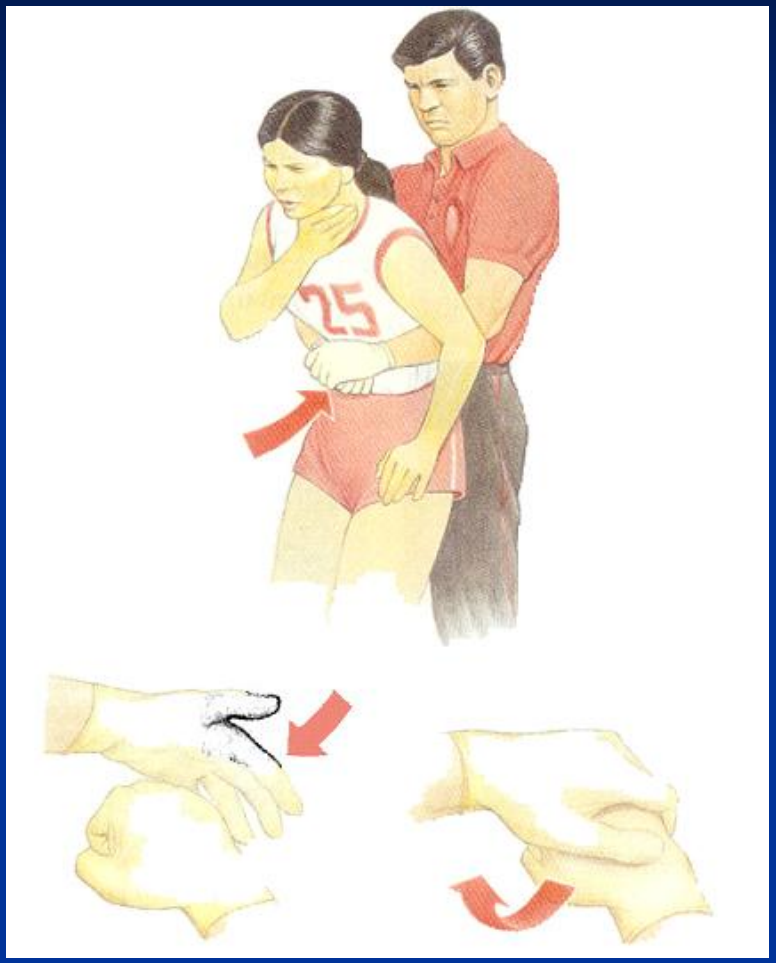
- **Classification of Obstruction**

1. Partial Obstruction with good air exchange
2. Partial Obstruction with poor air exchange
3. Complete or total Obstruction

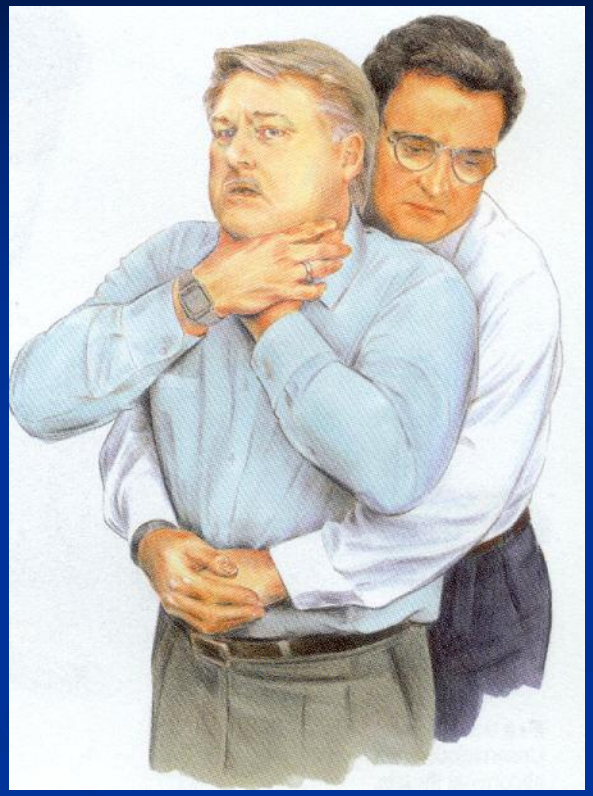
Distress sign of Obstructed Airway or "Choking"



Clutching on the throat with one or both hands

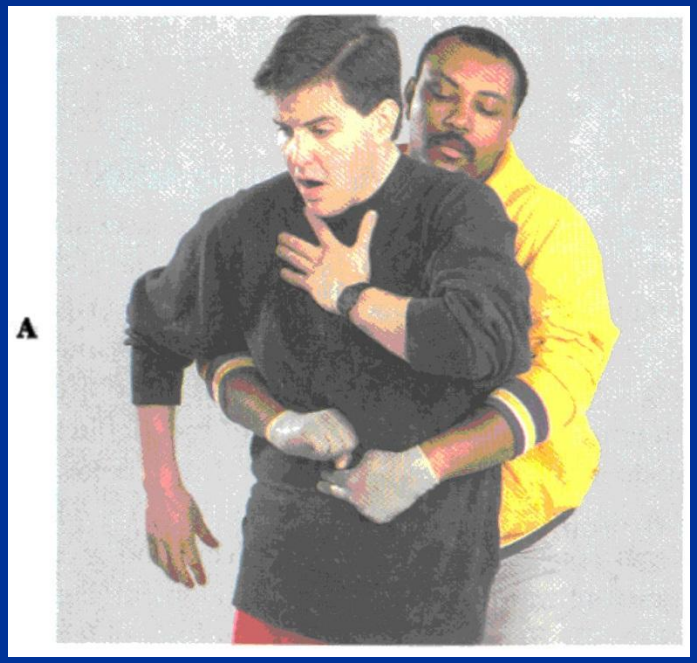


Abdominal thrust simulate a cough, forcing air trap in the lungs to push the object out of the airway

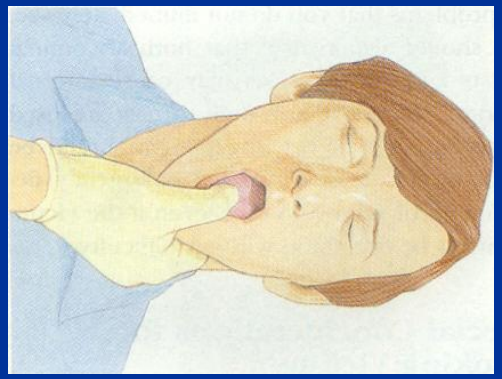


Heimlich Maneuver or Abdominal Thrust

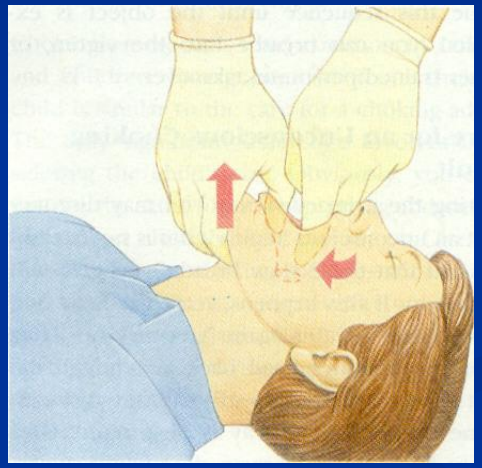
Heimlich Maneuver performed on a conscious adult

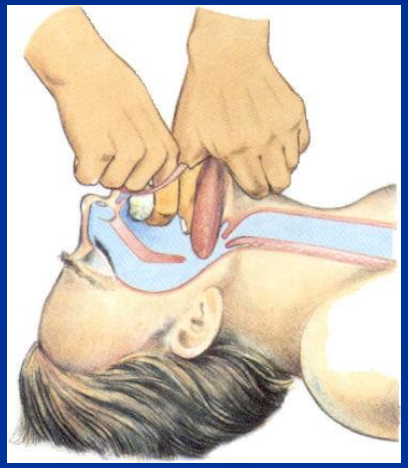


Relieving Obstruction by Finger sweep motion if object is seen



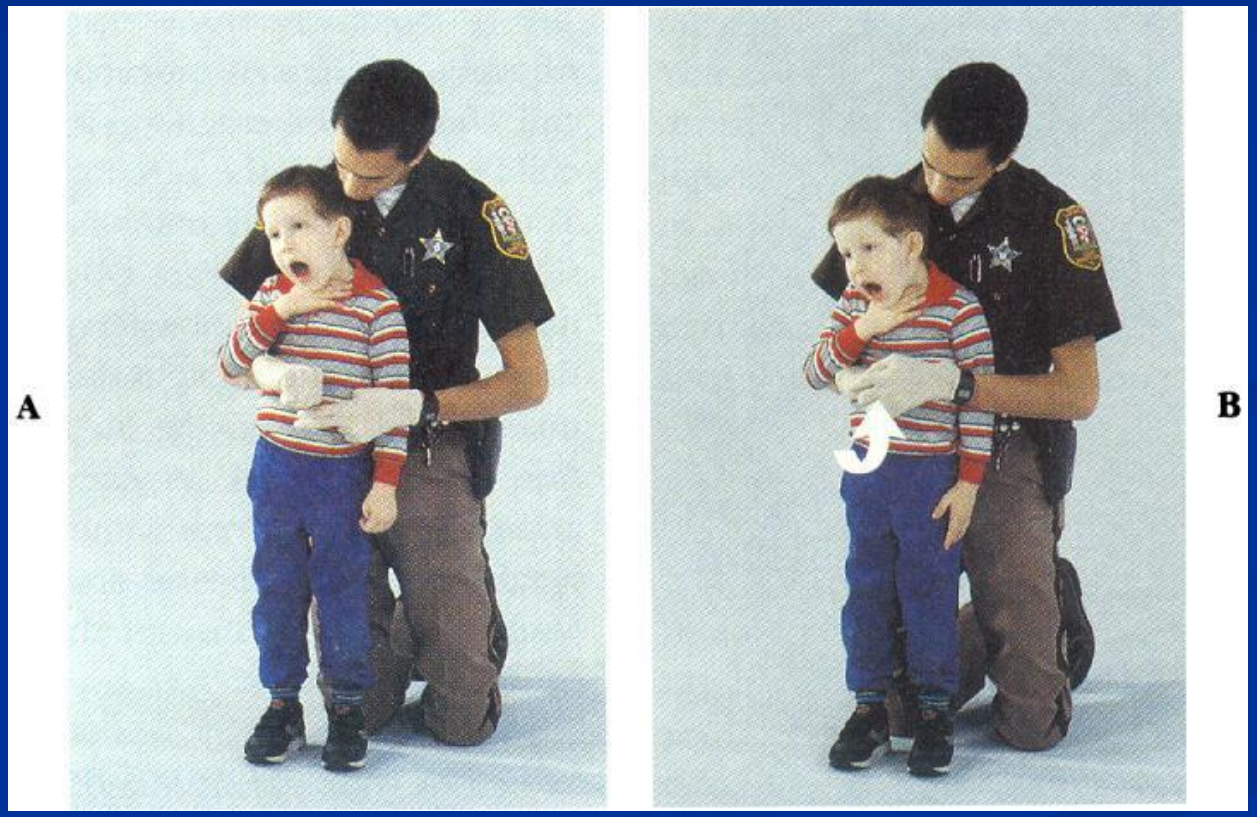
DEPRESS THE TONGUE OUTWARD



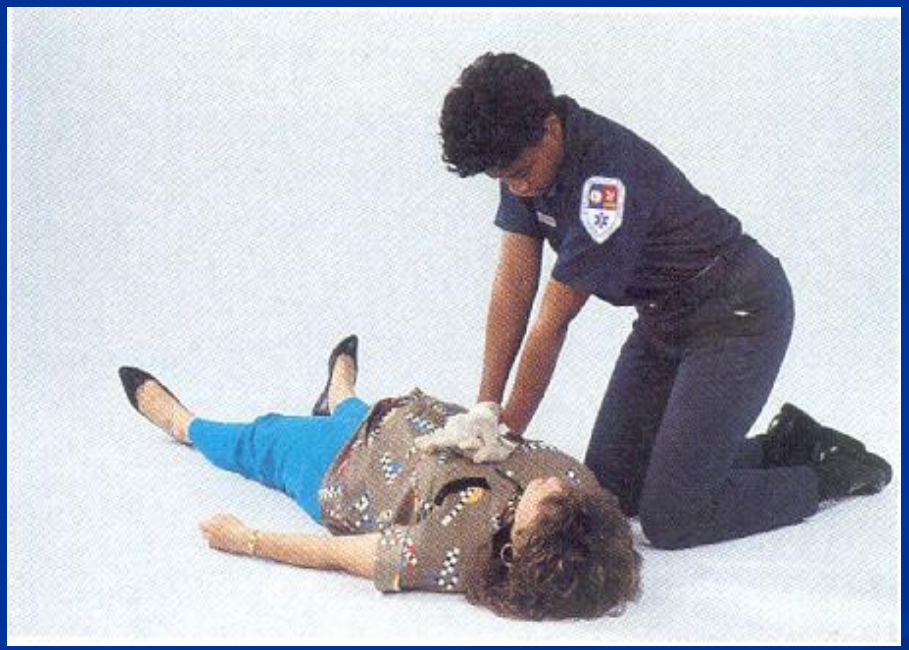


DO A FINGERSWEEP MOTION & HOOK ON THE OBJECT OUT

Heimlich Maneuver performed on a conscious child



Chest Thrust performed on pregnant / obese person



Basic Life Support

Cardiac Arrest And CPR

BODY SYSTEMS

- **Breathing & Circulation,**

  Air that enters the lungs contain about **21% of Oxygen** and only a trace of Carbon Dioxide.

  Air that is exhaled from the lungs contain about **16% of Oxygen** and 0.4% Carbon Dioxide

The right side of the heart pumps blood to the lungs where blood picks up oxygen and releases carbon dioxide.

BODY SYSTEMS

- **Breathing & Circulation,**

  When breathing and circulation stop, this is called clinical death where within

0-4 minutes, brain damage not likely to occur,

4-6 minutes, brain damage is probable

When the brain has been deprived of oxygenated blood for a period of 6 minutes or more an irreversible damage to brain tissues would probably occur. **This is called biological death.**

- *Caring for Life-Threatening Emergencies*

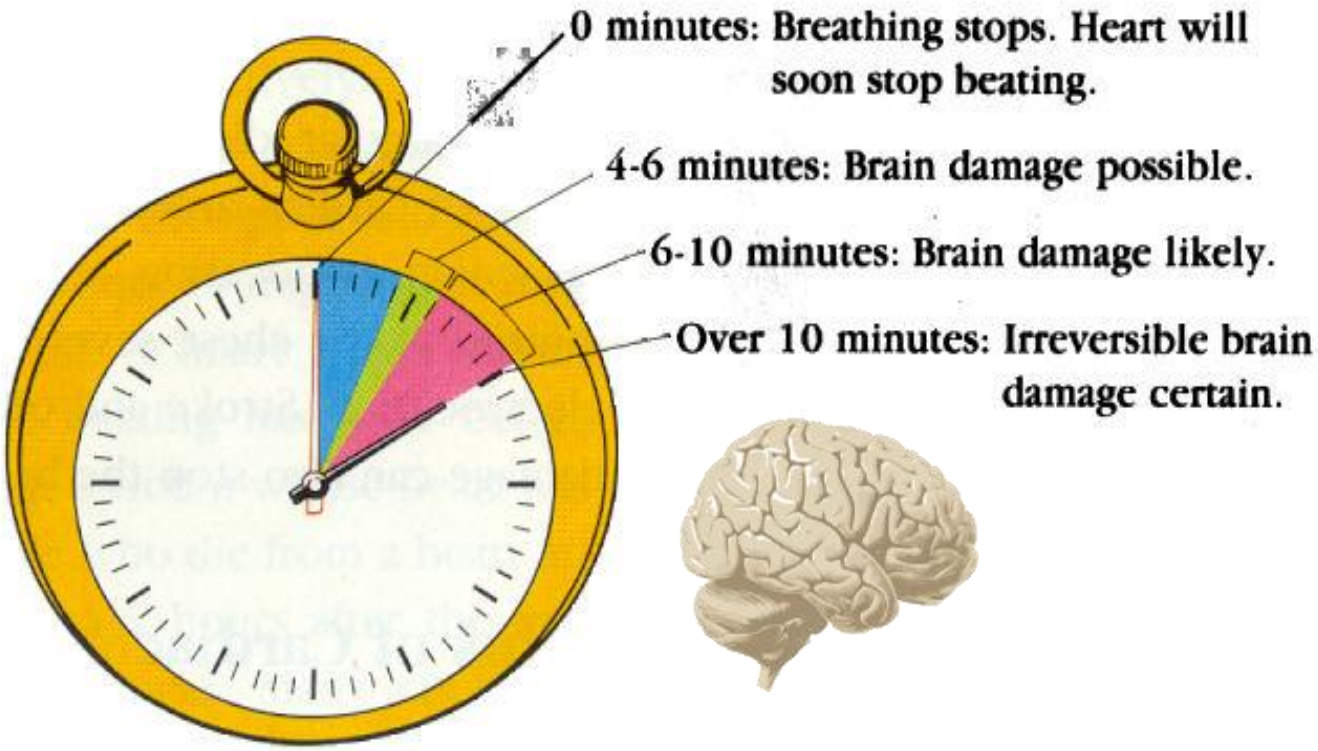


Figure 7-6 Clinical death is a condition in which the heart and breathing stop. Without resuscitation, clinical death will result in biological death. Biological death is the irreversible death of brain cells.

Cardio Vascular Disease

- Risk Factors that can not be changed

1. Heredity 2. Age 3. Sex / Gender

- Risk Factors that can be changed

Cigarette Smoking; High Cholesterol level; Hypertension; Lack of Exercise; Stress

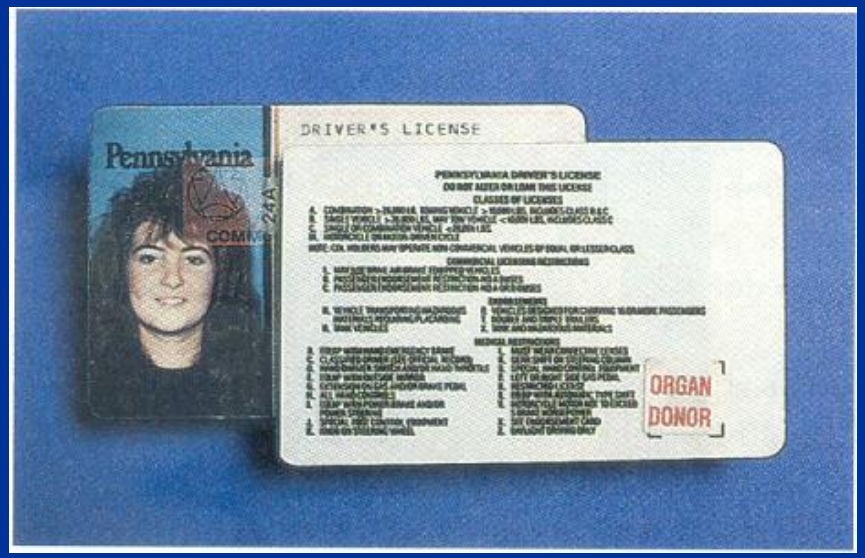
- CARDIAC ARREST

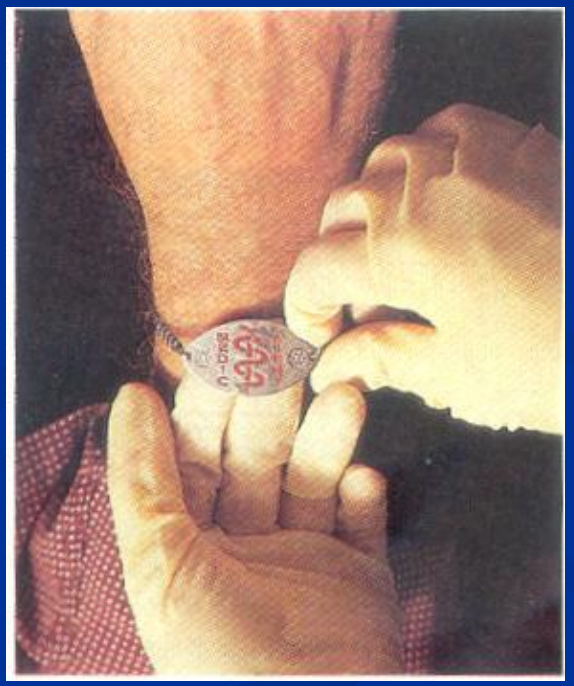
  Is the condition in which circulation ceases and vital organs are deprived of oxygen

- Cardio Pulmonary Resuscitation (CPR)

  This is a combination of chest compressions and rescue breathing. This must be combined for effective resuscitation of the victim

MEDIC TAGS / MEDIC ALERTS





Emergency Action Principles

- SURVEY THE SCENE
- ACTIVATE MEDICAL ASSISTANCE or ARRANGED FOR TRANSPORT FACILITY
- DO A PRIMARY SURVEY ON THE VICTIM

  Do Check for **RESPONSIVENESS**

  Do Check for **AIRWAY**

  Do Check for **BREATHING**

  Do Check for **CIRCULATION**
- DO A SECONDARY SURVEY ON THE VICTIM

INITIAL ASSESSMENT

CHECK FOR
RESPONSIVENESS / CONSCIOUSNESS

CHECK FOR
AIRWAY

CHECK
BREATHING

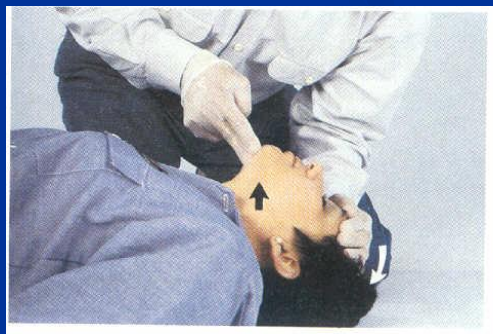
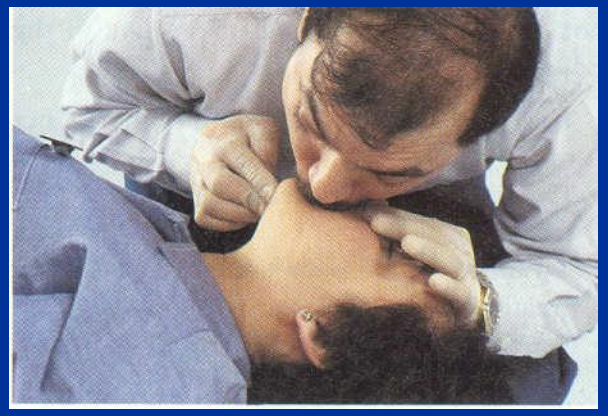


Figure 4-6 To check breathing, look, listen, and feel for breathing for about 5 seconds.

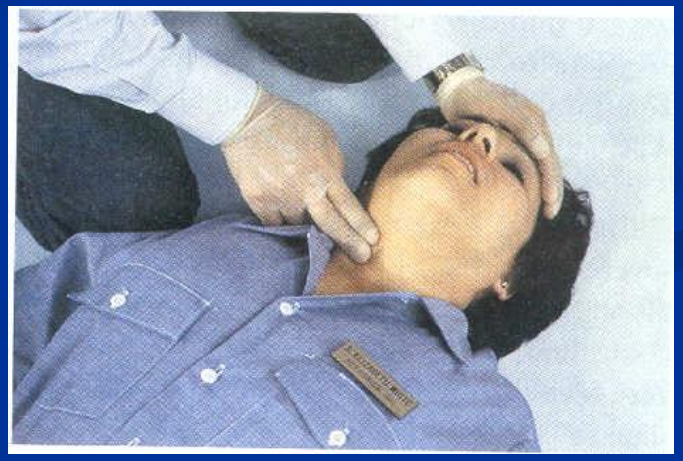
INITIAL ASSESSMENT

OPENING OF AIRWAY BY HEAD TILT-CHIN LIFT MANEUVER

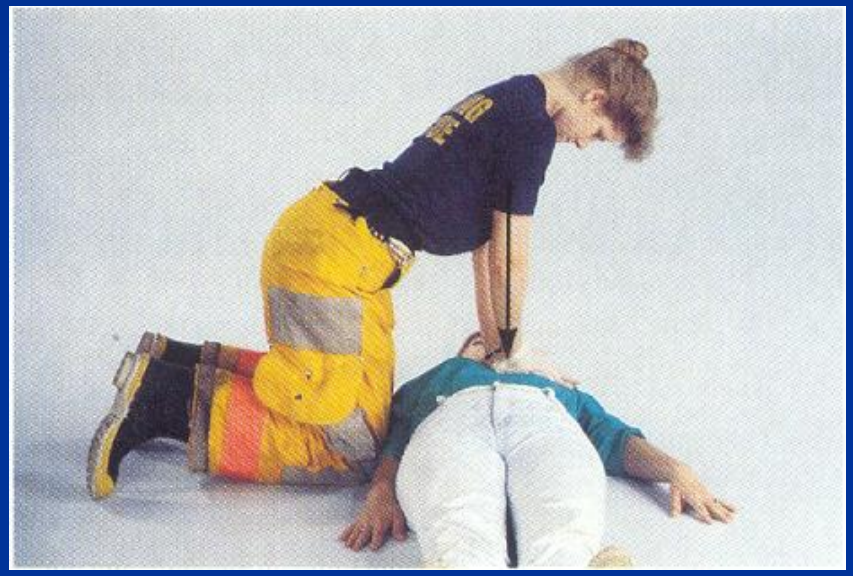


PROVIDING INITIAL BREATHS

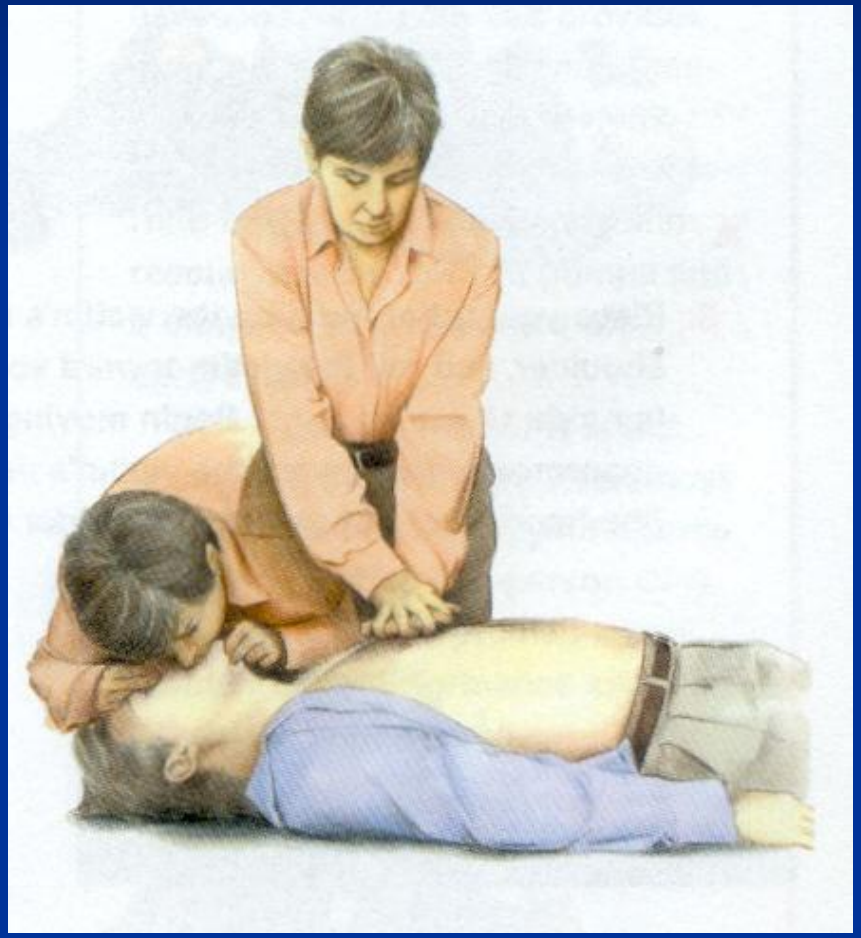
CHECKING FOR CIRCULATION



COMPRESSION / VENTILATION MANEUVER



Cardio Pulmonary Resuscitation (CPR)



30 COMPRESSIONS
2 VENTILATIONS
done in 5 CYCLES
in 2 MINUTES

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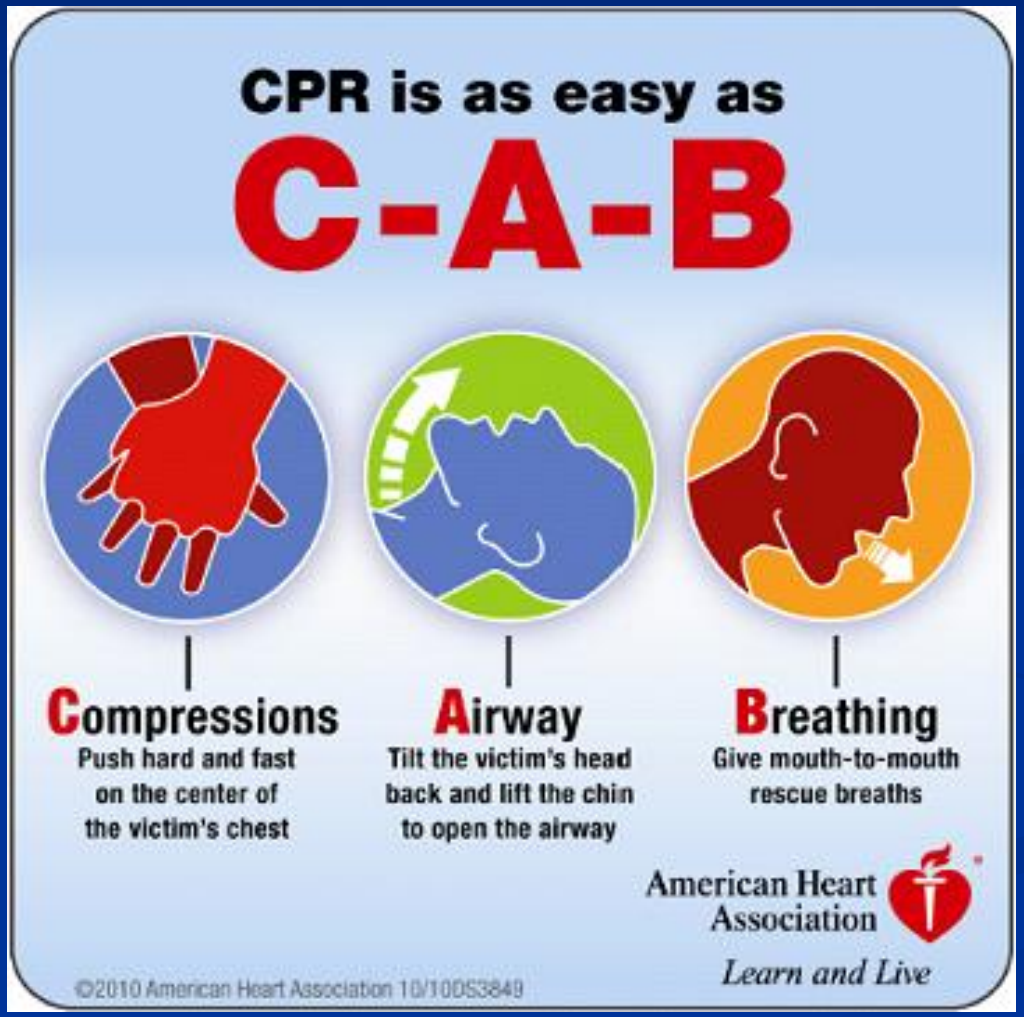
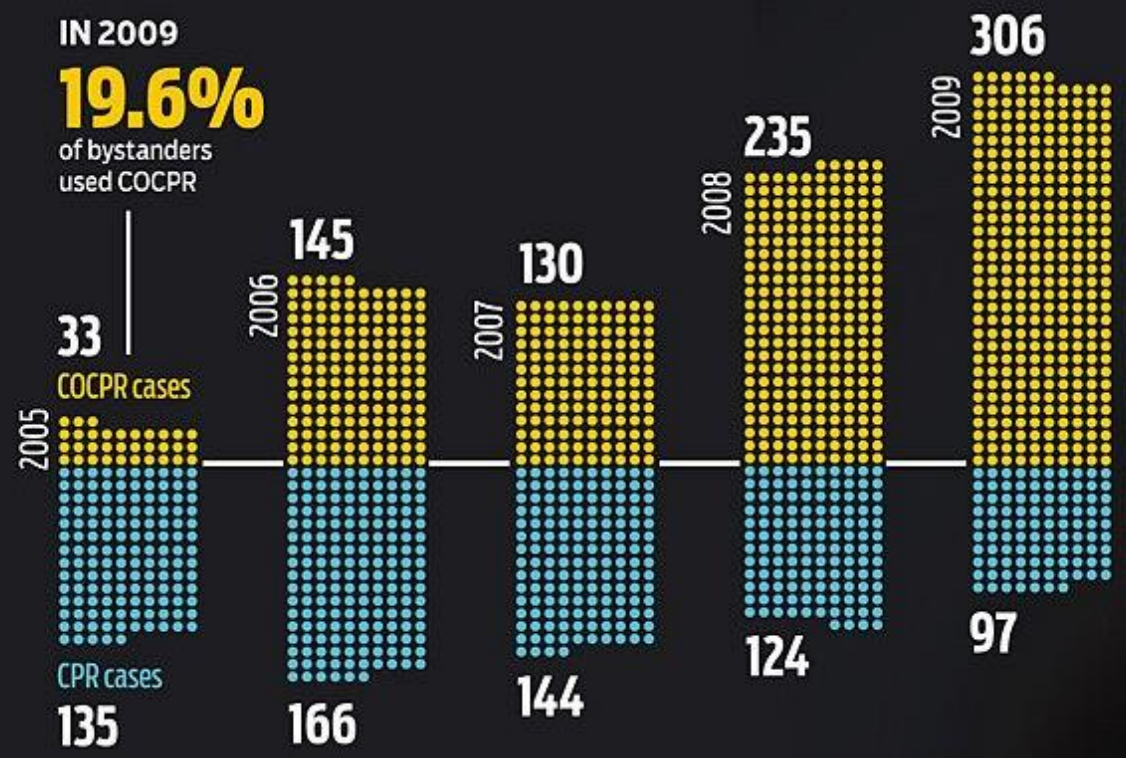
LAY RESCUER

Responsiveness



Comparing COCPR and CPR

Data from a five-year study* supports the use of COCPR versus conventional CPR. Cases show CPR used by bystanders, not medical personnel.



IN 2009

75.9%

of bystanders used COCPR

FIVE-YEAR STUDY SURVIVAL RATE

COCPR versus CPR

60%

improved odds of being discharged from hospital

COCPR patients discharged

13.3%

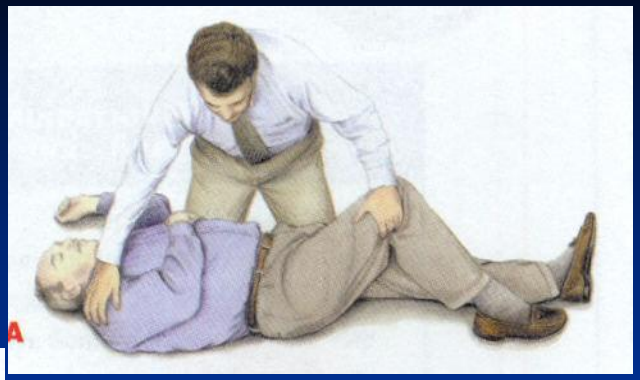
CPR patients

7.8%

*Arizona began a training program for COCPR prior to the five-year study. Training included: in-person and online, kits, public service announcements, information tables, summer youth classes, and features in newspapers, radio and television.

SOURCES: "Chest compression: Only CPR by lay rescuers and su
arrest", Journal of American Medical Association; American Hea
only CPR: Save your breath...save a life." The University of Arizo

Let us forget



Recovery position

Automated External Defibrillator

Life-Support System

AED