



**Centurion**  
**UNIVERSITY**



# **First Aid – Support to Life**



**School of Disaster Management**  
**Centurion University**



**First Aid** is the immediate & temporary treatment given to a victim of accident or sudden illness before medical help is obtained.



- The purpose of First-aid is to
  - Preserve life,
  - Assist recovery,
  - Prevent aggravation
  - And minimize complications with the help of material as available.
- It is usually performed by non-expert, but trained personnel to a sick or injured person

# Key Aim of First Aid

P

- **PRESERVE LIFE**

- The overriding aim of first aid, is to save lives.

P

- **PREVENT FURTHER HARM**

- Prevent the condition from worsening, or danger of further injury

P

- **PROMOTE RECOVERY**

- trying to start the recovery process from the illness or injury

# *First Aider can support following incidents.*

- **FIRST AID**
- ARTIFICIAL RESPIRATION
- CONTROL OF BLEEDING
- **FRACTURES**
- BURNS
- **SHOCK**
- WOUNDS
- **EYE INJURIES**
- ABDOMINAL WOUNDS
- **BACKBONE FRACTURE**
- HEAT STROKE
- **BLEEDING NOSE**
- **FOREIGN BODY IN THE EAR**
- BLEEDING EAR
- **SNAKE BITE**
- DOG BITE
- **INSECT BITE**
- CHEMICAL BURNS
- **SUFFOCATION**
- ELECTRIC SHOCK
- **UNCONSCIOUSNESS**
- POISONING

# QUALITIES OF FIRST AIDER

- **Prompt and Quick**
- **Observant and Clever**
- **Wise and Explicit**
- **Calm and Controlled**
- **Skilful and Tactful**
- **Responsibility & Resourceful**
- **Confidence and Perseverance**
- **Pride & Honesty**

# Golden Rules

- ❖ **Do first things first quickly, quietly & without panic.**
- ❖ **Give artificial respiration if breathing has stopped.**
- ❖ **Stop any bleeding.**
- ❖ **Guard against or treat for shock by moving the casualty as little as possible and handling him gently.**
- ❖ **Do not attempt too much.**

# Golden Rules

- ❖ **Reassure the casualty.**
- ❖ **Do not allow people to crowd around as fresh air is essential.**
- ❖ **Do not remove clothes unnecessarily.**
- ❖ **Arrange for the removal of the casualty to the care of a doctor or hospital as soon as possible.**





# CARDIO-PULMONARY RESUSCITATION.

## [ C P R ]

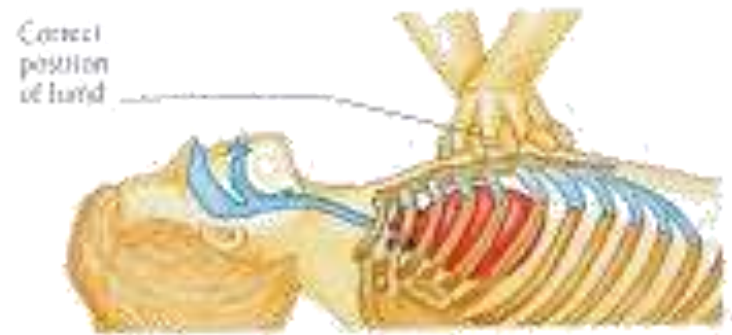
### IS

**SEQUENCE OF TECHNIQUES  
USED TO SUSTAIN LIFE  
IN THE ABSENCE OF  
SPONTANEOUS BREATHING & HEART BEAT**



# CPR

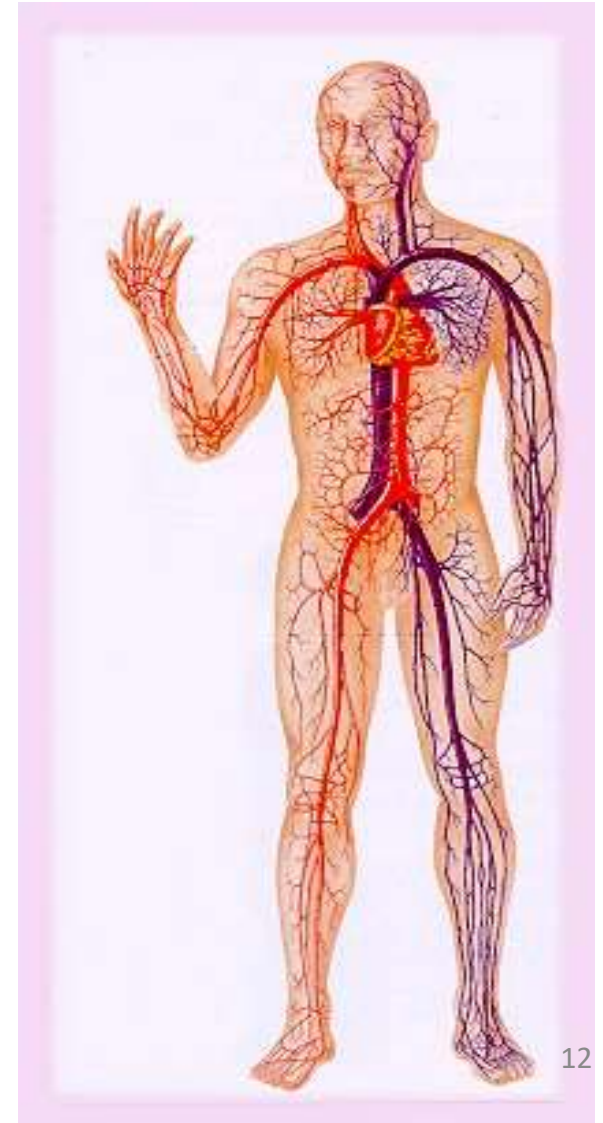
- **MAINTAIN AIRWAY.**
- **SUPPLY BREATH TO THE PATIENT.**
- **PRESS THE PATIENT'S CHEST TO CIRCULATE BLOOD.**



# *CIRCULATORY SYSTEM*

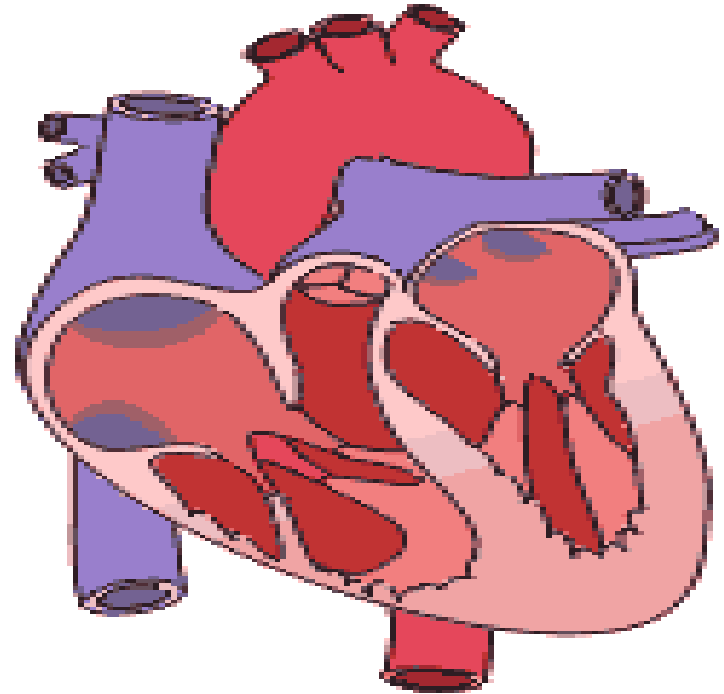
## **HELPS TO:**

- **CIRCULATE BLOOD.**
- **BRING OXYGEN & NUTRIENTS TO TISSUES.**
- **CARRY AWAY WASTE PRODUCTS.**



# HEART:

- ❖ **MUSCULAR ORGAN.**
- ❖ **SURROUNDED BY PERICARDIUM.**
- ❖ **HAS 2 ATRIA & 2 VENTRICLES.**
- ❖ **ACTS AS A PUMP.**
- ❖ **PUMPS ABOUT 16,000 PINTS OF BLOOD EVERY DAY.**



# NORMAL HEART RATE:

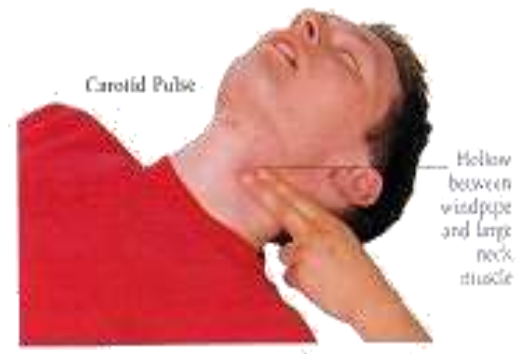
**AVERAGE ADULT - 60 to 90 beats per minute.**

# PULSE:

**RADIAL PULSE - FELT AT WRIST.**

**CAROTID PULSE - FELT AT NECK**

**BRACHIAL PULSE - FELT AT UPPER ARM**



# ABC of LIFE

ELEMENTS INVOLVED IN GETTING OXYGEN TO BRAIN:

# A

## OPEN AIRWAY



# B

## BREATHING.

*FOR OXYGEN TO ENTER BLOOD THROUGH LUNGS.*

**B. BREATHING**  
IS THE CASUALTY BREATHING?



If breathing has stopped you must try to restart it by giving mouth-to-mouth breathing.

# C

## CIRCULATION.

*TO CARRY OXYGEN TO ALL PLACES THROUGH BLOOD.*

**C. CIRCULATION**  
DOES THE CASUALTY HAVE A PULSE?  
IS THE CASUALTY BLEEDING?





# OPEN AIRWAY:

## IN UNCONSCIOUS PATIENT:

- TONGUE FALLS BACK DUE TO LOSS OF MUSCLE TONE IN THE THROAT & OBSTRUCTS THE AIR PASSAGE.

## WHAT IS TO BE DONE?

# OPEN AIRWAY!

- CHIN LIFT [ WITH TWO FINGERS]
- HEAD TILT [BY PRESSING THE HEAD WITH THE OTHER HAND.]



# CHECK BREATHING: [10 SECONDS]

**LOOK** - RISING CHEST

**LISTEN** - SOUNDS OF BREATHING

**FEEL** - BREATH ON CHEEK

Look to see if chest rises



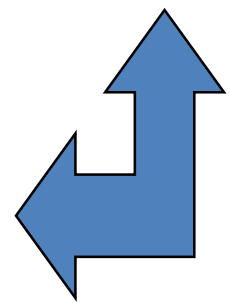
For baby

Look to see if chest rises



**IF NOT BREATHING** - BREATHE FOR CASUALTY.  
[ARTIFICIAL RESPIRATION]

**IF BREATHING** - PLACE IN RECOVERY POSITION.



# BREATHE FOR THE CASUALTY:

## ARTIFICIAL RESPIRATION:

- BEST METHOD - \* **MOUTH TO MOUTH** OR  
\* MOUTH TO NOSE BREATHING.

## OTHER METHODS ARE:

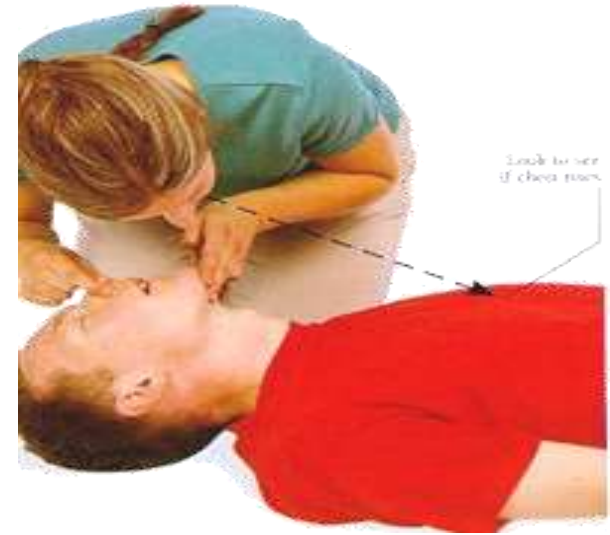
- ❖ SYLVESTER'S METHOD.
- ❖ HOLGER NELSON METHOD.
- ❖ SCHAFFER'S METHOD.

# MOUTH TO MOUTH METHOD:

- PLACE THE CASUALTY ON HIS BACK.
- HOLD THE HEAD TILTED BACK.
- TAKE DEEP BREATH WITH YOUR MOUTH WIDE OPEN.
- KEEP THE CASUALTY'S NOSE PINCHED.
- COVER THE MOUTH OF CASUALTY WITH YOUR MOUTH SMUGLY.  
*(COVER MOUTH WITH CLEAN CLOTH IF POSSIBLE)*



- **BLOW ON TO THE LUNGS AND WATCH CHEST RAISE. [2 SECONDS]**
- **WITHDRAW YOUR MOUTH AND WATCH CHEST FALLING BACK. [4 SECONDS]**
- **REPEAT ONCE MORE.**



**NOTE: -**

**IN CASE OF SMALL CHILDREN, THE RESCUER'S MOUTH SHOULD COVER THE MOUTH AND NOSE OF THE CASUALTY AND BLOW GENTLY.**



- **ASSESS FOR CIRCULATION.**

## **NOTE:**

### **•IF CHEST DOES NOT RAISE ON BLOWING:**

- SUSPECT OBSTRUCTION.**
- ENSURE OPEN AIR WAY.**
- REMOVE ANY OBSTRUCTION BY THUMPING ON BACK, ETC.**
- IF MOUTH TO MOUTH IS NOT POSSIBLE, USE MOUTH TO NOSE METHOD, BUT MOUTH SHOULD BE KEPT CLOSED.**
- ARTIFICIAL RESPIRATION CAN BE GIVEN EVEN IF BREATHING IS THERE, BUT NOT NORMAL.**

# EXTERNAL CARDIAC

## COMPRESSION [ ECC ]

**NOTE:-**

**THUMPING THE HEART OR ECC SHOULD NOT BE DONE, UNTIL THE HEART HAS STOPPED BEATING.**

**❖ FEEL AND MARK THE LOWER PART OF STERNUM.**

**❖ PLACE HEEL OF HAND, TWO FINGERBREADTHS ABOVE THE JOINT OF RIB MARGIN & BREASTBONE.**



# “CPR” IN CASE OF CHILDREN:

**HANDLE GENTLY.**

**OPEN AIRWAY:**

- **CHILDREN <1 YEAR - USE ONE FINGER TO LIFT CHIN.**
- **CHILDREN 1 to 7 YEARS - USE TWO FINGERS.**





# CPR:

## CHILDREN < 1 YEAR:

- ❖ REMOVE OBVIOUS OBSTRUCTION.
- ❖ SEAL YOUR LIPS TIGHTLY AROUND BABY'S MOUTH & NOSE & BREATHE GENTLY.
- ❖ GIVE 5 BREATHS. [1 BREATH / 3 SEC.]
- ❖ CHECK BRACHIAL PULSE.

## CHILDREN 1 to 7 YEARS:

- ❖ MOUTH TO MOUTH RESPIRATION.
- ❖ BLOW GENTLY.
- ❖ GIVE 5 BREATHS. [1 BREATH / 3 SEC.]
- ❖ CHECK CAROTID PULSE.



# FOR BOTH:

**PULSE NOT FELT** | 5 ECC FOLLOWED BY 1 ART. RESP.

**BABY (UNDER ONE)**



**IF PULSE FELT:**

- CONTINUE ART. RESP.

**IF BREATHING STARTS:**

- STOP CPR.

- PUT IN

- RECOVERY POSITION.



# EFFECTIVE CPR:

- PUPILS CONTRACT.
- COLOUR IMPROVES.
- CAROTID PULSE FELT ON EVERY COMPRESSION.
- RETURN OF SPONTANEOUS HEART BEAT.
- SPONTANEOUS GASPING RESPIRATION.
- ARM & LEG MOVEMENT.
- ATTEMPTS TO SWALLOW.
- RETURN OF CONSCIOUSNESS.



# INEFFECTIVE CPR:

## DUE TO:

- IMPROPER HEAD TILT.
- MOUTH NOT FULLY OPENED.
- INEFFECTIVE SEALING OF MOUTH.
- NOSE NOT PINCHED PROPERLY.
- NOT LYING ON HARD SURFACE.
- WRONG POSITION OF RESCUER'S HANDS.
- PROLONGED INTERRUPTION OF ECC.
- CHEST NOT SUFFICIENTLY COMPRESSED.
- COMPRESSION RATE TOO RAPID OR SLOW.
- COMPRESSION JERKY. [NOT 50 : 50]





**Thank You!**















