

Unit 4 – Airway Obstruction, Rescue Breathing and CPR

Chance of Survival Ratios

1 min. without oxygen	98/100
2 min. without oxygen	95/100
3 min. without oxygen	75/100
4 min. without oxygen	50/100 (*)
5 min. without oxygen	25/100
6 min. without oxygen	11/100

Clinical Death – When the heart and breathing stop

Biological Death – When the cell and tissues of the brain start to die. This is usually 4-6 minutes after the heart and breathing stop. The cells of the brain cannot rejuvenate themselves, therefore permanent brain damage.

Techniques for Child and Infant Rescue Breathing

<u>Child</u>	<u>Infant</u>
Head tilt not as far	Head tilt in “face up” position
Shallow breath	“Puff” when breathing
Pinch nose	Mouth over nose and mouth
1:3 breaths/second.	1:3 breaths/second.
Check pulse at carotid	Check pulse at brachial

Adult, Child and Infant CPR

1. *elbows* locked, *shoulders* directly over chest (adult and child), *fingers* interlocked and off chest (adult and child)
2. Location of compression – Adult and Child in center of chest. Infant is just below the nipple line in the center of the chest.
3. 30:2 (about 100 compressions per minute)
4. 1 ½-2” for Adult, 1- 1 ½ ” for Child, ½-1” for Infant

Rescue Breathing – used when the victim is not breathing, therefore ventilations only.

CPR – used when the victim is not breathing and does not have a pulse, therefore use ventilations and compressions.

Complications from the use of CPR

1. Ribs can break away from the sternum – especially in the elderly (70% of the time the ribs end up being broken).
2. Xiphoid bone breaks – could lacerate the liver
3. Break ribs and puncture lung, possibly due to “rocking”
4. Crack or break sternum (about 70lbs. of pressure)

Symptoms of potential or impending cardiac arrest:

Preliminaries:

1. Intense pressure, tightness or squeezing in chest.
2. Pressure spreads to arm, neck and jaw on left side.
3. Nauseated, shortness of breath, faint or weak.
4. Numbness, tingling sensation in fingers.

Are having or have had the attack:

5. Pupils are dilated with no response to light.
6. Unconscious
7. Cyanosis – when body parts turn blue due to a lack of oxygen.

Partial Airway Obstruction: The victim can speak and there is some air exchange. *First Aid* is to encourage coughing.

Full Airway Obstruction: The victim cannot speak, but there may be high pitched squeal sounds.

The Universal Distress Signal for Choking is a hand to the throat.

Conscious Full Airway Obstruction:

Adult:

1. Can you speak?
2. I know First Aid, may I help you?
3. “You, call 911”
4. 5 back blows
5. 5 abdominal thrusts

*Repeat back blows and abdominal thrusts until effective or victim goes unconscious.

Child:

1. Can you speak?
2. “You, call 911”
3. 5 back blows
4. 5 abdominal thrusts

*Repeat back blows and abdominal thrusts until effective or victim goes unconscious.

Infant:

6. Seeing victim quiet and starting to turn red/blue, “You call 911-victim is choking”
7. 5 back blows
8. 5 chest compressions

*Repeat back blows and chest compressions until effective or victim goes unconscious.

Unconscious Full Airway Obstruction – (Witnessed)

Adult:

1. Lower gently to the ground, supporting neck and shoulders.
2. Open airway using head tilt, chin lift.
3. Breathe (Attempt to ventilate, reposition and attempt to ventilate again)
4. Start CPR
5. Check airway (Sweep?) – repeat steps 3, 4 and 5 until effective or help arrives.

Child:

1. Lower gently to the ground, supporting neck and shoulders.
2. Open airway using head tilt, chin lift.
3. Breathe (Attempt to ventilate, reposition and attempt to ventilate again)
4. Start CPR
5. Check airway (Sweep?) – repeat steps 3, 4 and 5 until effective or help arrives.

Infant:

1. Gently lay on table or firm surface.
2. Open airway using head tilt.
3. Breathe (Attempt to ventilate, reposition and attempt to ventilate again).
4. Start CPR
5. Check airway (Sweep?) – repeat steps 3, 4 and 5 until effective or help arrives.