

First Aid: ABC, Recovery Position and CPR

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Abstract: *First Aid is vital for saving lives. A person can carry out first aid after a life threatening incident or injury before the arrival of medical help. This article gives an overview of how to carry out first aid, why it is important and the role of ABCs, recovery position and CPR in saving lives*

Keywords: First Aid, ABC, CPR, Recovery Position, Airway, Breathing, Circulation

1. Introduction

First aid is the assistance given to any person suffering a sudden illness or injury with care provided to preserve life, prevent the condition from worsening and/or promote recovery. It includes initial intervention in a serious condition prior to professional medical help being available.

According to national first aid science advisory board, first aid should be learned by every person for which it is necessary that first aid training and education should be provided to everyone and should be made compulsory in curriculum at schools. However first aid doesn't necessarily require any particular equipment or prior knowledge and can help improvisation with materials available at the time, often by untrained people. The term usually refers to administering care to a human, although it can also be performed on animals.

2. Aim

a) To preserve life

This is the main aim of first aid

b) To prevent the condition from worsening

It is very important to keep the person who has undergone the injury or an accident stable. His/Her condition must not deteriorate before medical help arrives. This includes moving the individual away from harm, applying first aid techniques and many more.

c) To Promote recovery

Steps must be taken to enhance the chances of recovery including application of a bandage to a wound

3. Skills

Certain skills are considered essential to the provision of first aid and are taught ubiquitously. Particularly the ABCs of first aid, which focus on critical life saving intervention, must be rendered before treatment of less serious injuries. ABC stands for airway, breathing and circulation. The same mnemonic is used by all emergency health professionals. Some organisations add a fourth step of "D" for "Deadly bleeding or defibrillation" while many others consider this to be a part of circulation step.

a) Airway

It should be made sure that the airway is clear. Choking, which results from obstruction of airway can be fatal. Have the injured person lying on their back, and then place one hand on the forehead and two fingers from other hand on the chin. Gently tilt the head back while slightly raising the chin upwards. Any obstruction must be removed from the mouth, including dentures. If you think they could have a spinal injury, you must try to keep their neck as still as possible. Instead of tilting their neck, use JAW THRUST technique: Place your hands on either side of their face and with your fingertips gently lift the jaw to open the airway avoiding any movement of the neck.

b) Breathing

Once the airways are confirmed to be clear, determine whether the person can breathe, and if necessary, provide rescue breathing. The first aider should examine the chest for movement and mouth for signs of breathing. Afterwards, get close to the person to see if air can be felt on the cheek from breathing.

c) Circulation

If the person is not breathing, the first aider should go straight for chest compression and rescue breathing. The chest compression promotes circulation and saves time. First aider can check pulse if it is not a life threatening emergency. Evaluating and maintaining ABC with a patient depends on training and experience of a first aider. The ABC process must be carried out in that order. However, there are times when a first aider might be performing two steps at the same time. This might be the case when providing rescue breathing and chest compression together to a person who is not breathing and has no pulse.

However, it is important to use a primary survey to make sure that scene is clear of threats before stepping in to help.

- Check for dangers to injured person and yourself. Stand clear and call for professional help if there are threats.
- Check if the patient is conscious and alert. Ask questions to look for response. Also, it is important to judge whether they respond to touch or are aware of their pain.
- Check for airway patency and perform steps to clear any obstruction as discussed earlier.
- Check if the person is breathing effectively.

The first aider then needs to carry out a secondary survey, checking for deformities, open wounds, swelling, capillary refill (Normal=2-3seconds) and pink colour of inner lower

lip. As soon as this has been completed, the person should be placed in recovery position and an ambulance should be called for.

Recovery Position

Even if the individual is breathing but is unconscious, there is still a significant risk of airway obstruction. The recovery position reduces that risk in the patient. A first aider should do the following :

- a) Kneel down next to the person on the floor. Place their arm nearest to you at right angles to their body with their palm facing upwards.
- b) Take their other arm and place it across their chest so the back of their hand is against their cheek nearest to you and hold it there.
- c) With your other hand, lift their far knee and pull it up until their foot is flat on the floor.
- d) Carefully pull on their bent knee and roll them towards you. Once you have done this, the top arm should be supporting the head and the bent leg should be on the floor.

REMEMBER that until help arrives, you must keep checking that they are breathing. If they stop breathing, get ready to give them CPR.

Cardio-Pulmonary Resuscitation (CPR)

“When the cardiac arrest occurs outside of a hospital setting, the survival rate ranges from 2% to 15%”, says Dr Kei Ouchi, an emergency physician at Harvard affiliated Brigham and women’s hospital. This grim reality has led to a need to learn a simple, potentially life saving skill to help someone in cardiac arrest: cardio-pulmonary resuscitation (CPR) known as bystander or hands-only CPR. The AHA says when a bystander promptly performs CPR, it doubles or triples the survival rate.

CPR consists of the use of chest compression and artificial ventilation to maintain circulatory flow and oxygenation. Traditional CPR involves chest compression and mouth-to-mouth breathing whereas bystander CPR consists of only the chest compression. They are both important but when cardiac arrest occurs, there is already some oxygen left in the blood which must be pumped to the brain than spending extra time to give the patient more oxygen. Once you have called for medical emergency, you can begin CPR.

1) If you are not trained in CPR then provide hands-only CPR that is uninterrupted chest compressions of 100-120 per minute till help arrives. Following are the steps:

- a) Kneel next to the person’s chest.
- b) Place the heel of one hand over the other in the middle of the chest and interlace the fingers.
- c) Extend your arms completely with elbows straight.
- d) Push down hard at right angle about 1.5-2 inches deep and after the push, completely release the pressure. That is one compression.
- e) Aim for 100 or more compressions per minute.

2) If you are well trained and confident, begin CPR with 30 chest compressions before giving 2 rescue breaths. Following are the steps

- a) Apply 30 chest compressions following the steps for chest compression as mentioned above.
- b) Provide two rescue breaths as follows:
 - Make sure the airway is open and pinch the nose so that it closes properly.
 - Gently raise the chin upwards with two fingers of your other hand.
 - Take a deep breath, seal your mouth over that of the injured person and exhale into the airway.
 - You should look for the chest rise and fall.
 - Repeat 30 chest compressions followed by 2 breaths for about 5 times and then check for normal breathing.

You might hear some pops and snaps during chest compression. These are completely normal to occur so do not stop.

4. Conclusion

Accidents will always happen. Therefore it is essential that wherever your location or working environment is, you must understand the importance of first aid in order to ensure maximum safety of the person involved. First aid doesn’t just help with recovery; it helps save lives.

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Author Profile



Shivangi Garima received MBBS degree from Dr. D.Y. Patil School Of Medicine in 2019. From 2013-2018, she studied as a medical student and completed rotatory internship on February 2019. Also, she has successfully completed a course in Emergency First Aid including CPR and AED on April 21st 2019 by First Aid International and owns a certification card for the same.