

Al Salama

# First Aid

Manual

**YOUR  
SAFETY IS  
OUR  
PRIORITY**



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## **Disclaimer**

The content of this manual has been developed by Al Salama Fire Safety Training.

**Al Salama Safety Training Academy**

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Introduction to first aid

**MODULE 2.**

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## Module 1. Introduction first aid

First aid – is the immediate care given to a person who has been injured or suddenly taken ill. It includes self-help and home care if medical assistance is not available or is delayed. It also includes well-selected words of encouragement, evidence of willingness to help, and promotion of confidence by demonstration of competence.



The person giving first aid, the first-aider, deals with the whole situation, the injured person, and the injury or illness. He knows what not to do as well as what to do; he avoids errors that are frequently made by untrained persons through well-meant but misguided efforts. He knows too, that his first aid knowledge and skill can mean the difference between life and death, between temporary and permanent disability, and between rapid recovery and long hospitalization.

First aid training not only provides you with knowledge and skill to give life support and other emergency care but also helps you to develop safety awareness and habits that promote safety at home, at work, during recreation, and on the streets and highways.



## PRIMARY GOALS OF FIRST AID

• **Preserve life** – Maintaining the safety and well-being of all those involved in an emergency is vital. Emergency situations change during the process of managing the incident. The primary survey will help you preserve life by prompting you to provide care in the correct priority.

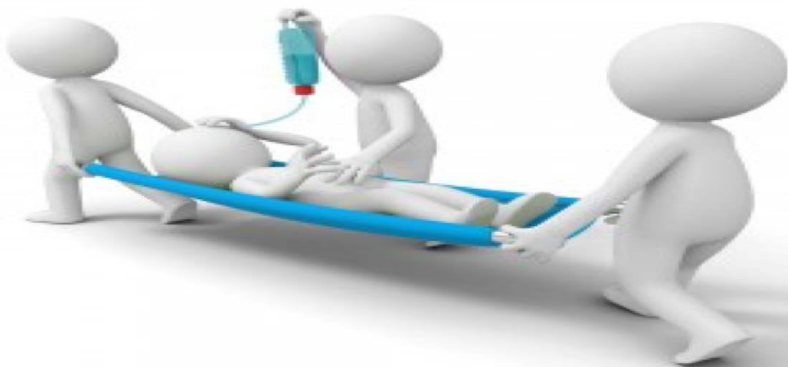


• **Prevent deterioration** – Carry out your patient assessment and treatment with care. You should aim to ensure the condition of the patient does not worsen. Continually reassess the patient and provide the appropriate care until medical help arrives

• **Promote Recovery** – Arrange for medical care and provide first aid in accordance with your training and skills. Providing reassurance through confident and appropriate care will aid in promoting recovery of the patient by alleviating anxiety and discomfort caused by the incident.

## Roles and Responsibilities of First Aider

1. Bridge that fills the gap between the patient and the physician.
2. Ensures personal safety, patient and the by-stander.
3. Gain access to the patient.
4. Determines any threats to patient's life.
5. Summon advanced medical care as needed.
6. Provide needed care for the patient.
7. Assists EMT and other medical personnel.
8. Records all assessments and care given to the patient.



## FIRST AID KIT

A first aid kit is a collection of supplies and equipment for use in giving first aid. We never know when an emergency can occur, best possible solution is to be prepared for emergency

A well-stocked first-aid kit can help you respond effectively to common injuries and emergencies. Keep at least one first-aid kit in your home and one in your car. Store your kits someplace easy to get to and out of the reach of young children. Make sure children old enough to understand the purpose of the kits know where they're stored.

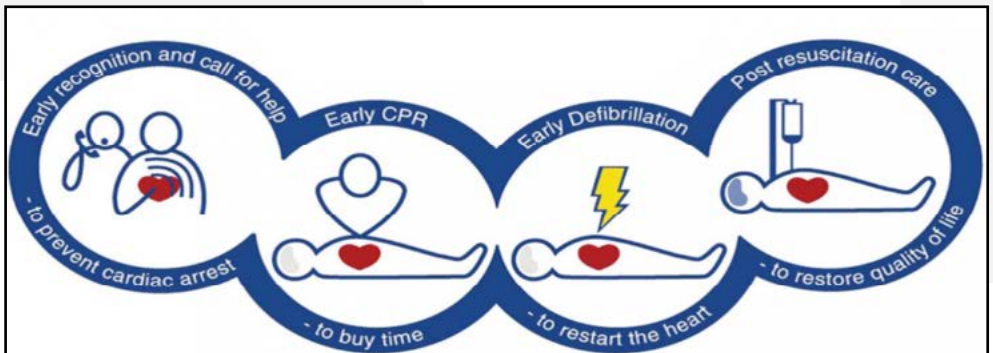
You can buy first-aid kits at many drugstores or assemble your own. You may want to tailor your kit based on your activities and needs. A basic first-aid kit includes:

- Adhesive tape
- Elastic wrap bandages
- Bandage strips in assorted sizes
- Nonstick sterile bandages and roller gauze in assorted sizes
- Eye shield or pad
- Triangular bandage
- Instant cold packs
- Cotton balls and cotton-tipped swabs
- Disposable nonlatex examination gloves, several pairs
- Plastic bags, assorted sizes
- Scissors and tweezers
- Antiseptic solution
- Eyewash solution
- Thermometer
- Cpr face shield
- First-aid Manual



## CHAIN OF SURVIVAL

- **Early Recognition and Call for Help** – If you suspect a heart attack or sudden cardiac arrest, call for an ambulance right away
- **Early CPR** – If Cardiac arrest occurs begin CPR, Effective CPR buys time. If the patient is an adult, you should normally assume a heart problem and go for help immediately.
- **Early Defibrillation** – In most cases of cardiac arrest, the heart stops beating effectively because of an electrical disturbance called ventricular fibrillation (VF). The only effective therapy for VF is the delivery of an electric shock to the heart.
- **Post resuscitation care** – Healthcare professionals may use a range of advanced techniques to promote recovery and restore quality of life.





## MODULE 2. Self-Protection and PPE

**Personal Protective Equipment (PPE)** is any protective item of clothing or equipment that has been designed for the purpose of protecting the wearer from injury or hazard. These hazards can include physical, chemical, biohazards and airborne pathogens.

**Gloves** - there are three types of gloves available - latex, nitrile and vinyl. Because of latex allergies, nitrile and vinyl gloves are the best options. (We only use nitrile in our classes)

**Face Shields** - is used provide a barrier between the rescuer and victim or vice versa.

**CPR Pocket Mask** - Also known as a pocket face mask, a CPR pocket mask ensures safety by having a one-way filter valve in place. When the person giving breaths breathes into the mouth of the patient the one-way filter valve prevents any mucus, blood, vomit from going ck into the resuscitators mouth.



## MODULE 3. Primary Assessment

**D – anger** Minimize the danger before you approach. Ensure the Safety to the Rescuer, Patient and Bystanders.

Check the scene for safety. Smoke or flames, Spilled gasoline or chemicals, fumes, electrical wires, Risk of explosion or building collapse, Roadside dangers or roadside traffic, Deep water or ice, potential for violence from someone present at the scene.

**R - esponse** Check the responsiveness, if unresponsive, Call EMS. Use bystanders to Assist you if possible i.e. controlling Traffic, calling for help.

**A - irway** If any solid or liquid is found, place the casualty onto their side and clear the Airway. If nothing is found in the mouth open the Airway using Head Tilt – Chin Lift



**B – reathing** Check breathing using

**L**- ook the movement of chest

**L**- isten for normal breathing

**F**- eel for breath on the side of your cheek



**A** - Alert (fully conscious and oriented)

**V**- Responds to Verbal stimuli (Conscious but confused, or unconscious but responsive to verbal stimuli in some way)

**P**- Responds to Pain (unconscious but responsive to painful stimuli in some way)

**U** - Unresponsive (without gag reflex or cough reflex)

**C – irculation / Call 998 / CPR** Check for major bleeding and manage accordingly. If not breathing, immediately perform CPR 30 compression 2 breaths



**D – efibrillation** Automated External Defibrillator – will automatically determine the heart rhythm, if the patient is in ventricular fibrillation, shock the victim's heart in an attempt to restore its rhythm to normal.



## Secondary Assessment

If the patient is breathing, a secondary assessment should be carried out. Inform the casualty what you are doing at all stages. If the patient is responsive ask them to tell you if they feel any pain during the head-to-toe survey

- Head and face
- Neck
- Chest and shoulders
- Arms and hands
- Spine
- Pelvis
- Abdomen Legs and feet.



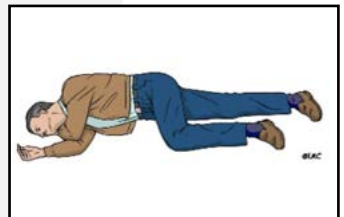
## Recovery Position

If a person is unconscious but is breathing and has no other life-threatening conditions, they should be placed in the recovery position.

Putting someone in the recovery position will ensure their airway remains clear and open. It also ensures that any vomit or fluid will not cause them to choke.

### To place someone in the recovery position:

- Kneel on the floor on one side of the person
- Place the arm nearest you at a right angle to their body with their hand upwards towards the head
- Tuck their other hand under the side of their head, so that the back of their hand is touching their cheek
- Bend the knee farthest from you to a right angle
- Roll the person onto their side carefully by pulling on the bent knee
- The top arm should be supporting the head and the bottom arm will stop you rolling them too far
- Open their airway by gently tilting their head back and lifting their chin, and check that nothing is blocking their airway
- Stay with the person and monitor their breathing and pulse continuously until help arrives
- If their injuries allow you to, turn the person onto their other side after 30 minutes



## MODULE 4. Cardio Pulmonary Resuscitation/CPR

**CARDIOPULMONARY RESUSCITATION** - This is a combination of chest compression and rescue breathing. This must be combined for effective resuscitation of the victim of cardiac arrest

### CPR TECHNIQUE:

**Ratio:** 30 COMPRESSIONS AND  
2 BREATHS

### Depth of compression

At least 2 inches or 5-6cm for adult

**Rate:** 100-120 compression/min



## Summary of CPR steps for adult, child and infant

Step/Action	Adult	Child 1 to the onset of puberty	Infant 0 - 1 year
<b>Compressions</b>			
Compression landmarks	In the center of chest		
Compression method Push hard and fast Allow complete recoil	2 hands: Heel of 1 hand, second hand on top	2 hands: Heel of 1 hand with second on top or 1 hand: Heel of 1 hand only	2 fingers
Compression depth	at least 2 inches	about 2 inches	about 1 1/2 inches
Compression rate	at least 100-120/min		
Compression Ventilation ratio	30:2	5 Rescue Breaths then 30:2	
Airway	Head tilt / chin lift		
Breaths	2 breaths at 1 second/breath		

## HANDS ONLY CPR

If for any reason you are unable to give mouth to mouth breaths or reluctant to do it or find it difficult to do, PLEASE continue to provide continues hands only CPR- chest compression only until medical helps arrive.



Help save a life with  
Hands-Only CPR.



## MODULE 5. Automated External Defibrillation (AED)

An automated external defibrillator (AED) is a portable device that checks the heart rhythm and can send an electric shock to the heart to try to restore a normal rhythm. AEDs are used to treat sudden cardiac arrest (SCA). Is used in cases of life-threatening cardiac arrhythmias which lead to cardiac arrest. The rhythms that the device will treat are usually limited to:



1. **Pulseless Ventricular tachycardia (shortened to VT or V-Tach)**
2. **Ventricular fibrillation (shortened to VF or V-Fib)**

In each of these two types of shockable cardiac arrhythmia, the heart is electrically active, but in a dysfunctional pattern that does not allow it to pump and circulate blood. In ventricular tachycardia, the heart beats too fast to effectively pump blood. Ultimately, ventricular tachycardia leads to ventricular fibrillation. In ventricular fibrillation, the electrical activity of the heart becomes chaotic, preventing the ventricle from effectively pumping blood.



## MODULE 6. Choking Management

### CLASSIFICATION OF OBSTRUCTION

- **Mild obstruction** - The patient is responsive and can cough forcefully, although frequently there is wheezing between coughs.
- **Severe obstruction** - The patient is unable to speak, breathe, or cough and may clutch the neck with the thumb and fingers. Movement of air is absent.

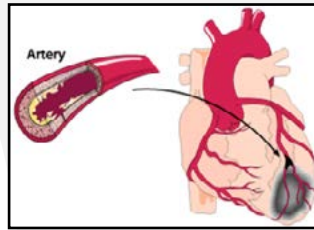
### 5 Back blows and 5 Abdominal thrust / (HEIMLICH MANEUVER)

Heimlich maneuver or abdominal thrusts is recommended for relieving foreign body airway obstruction, it is a first aid procedure used to treat airway obstructions (or choking) by foreign objects



## MODULE 7. Heart Attack

Heart attack - It occurs when the oxygen supply to the heart muscle (myocardium), cut-off for a prolonged period of time. This cut off results from a reduced blood supply due to severe narrowing or complete blockage of the diseased artery. The result is death or (infarction) of the affected part of the heart.



### WARNING SIGNALS

- Chest discomfort – is characterized by: uncomfortable pressure, squeezing, fullness or tightness, aching, crushing, constricting, oppressive or heavy.
- Shortness of breath
- Difficulty of breathing
- Sweating
- Nausea
- Shortness of breath
- ARM PAIN (more commonly on the Left arm but may be either both arm)
- Upper back pain

## MANAGEMENT:

- Recognize the signal of heart attack and take action.
- Sit the casualty down and make them comfortable. Do not allow them to walk around. A half sitting position is often the best
- Have someone call the physician or ambulance for help.
- If patient is under medical care assist him/her in taking his prescribed medicine.

## MODULE 8. HYPOVOLAEMIC SHOCK

Hypovolaemic shock is a life-threatening condition that occurs when the body loses 20% (one fifth) or more of its blood or fluid supply.

### Signs and Symptoms of Shock

- Face – pale or cyanotic in color
- Irregular breathing
- Rapid weak pulse
- Cold clammy skin
- Nausea and vomiting
- Weakness and thirsty



## First Aid Management

- Contact the emergency services (998)
- Lay the casualty down on a flat surface and raise the legs, ensuring the legs are above the level of the heart
- Loosen tight clothing
- Keep the casualty warm with a blanket
- Monitor the casualty's airway and breathing
- Do not allow food or drink (may induce vomiting)



## MODULE 9. EPILEPSY / SEIZURES

Epilepsy is a long-term condition that is characterized by repeated seizure when there is abnormal electrical activity in the brain. When this occurs, the brain fails to function and the person will lose consciousness.

**Symptoms occur suddenly and may include:**

- Staring
- Facial twitching and unusual eye movement
- Inappropriate behavior
- Sudden stiffening of the body
- Violent jerking actions
- Loss of body control
- Jaw muscles tighten and may impair breathing



## Management:

- Remove any materials like furniture, table, chairs or any sharp object that can harm or strike the patient when the patient is having jerking movement.
- Protect them for injury, cushion the head with soft fabric.
- Do not force objects into their mouth.
- If seizing activity stops and place the victim in the recovery position
- Talk quietly and reassure them.

## Call EMS If:

- The seizure last longer than five minutes
- They have a second seizure without having regained consciousness



## MODULE 10. Bleeding Control

**Wound** – is a break in the continuity of a tissue either external or internal.

### TWO TYPES OF WOUNDS

#### Closed Wound

it involves underlying tissue without break or damage in the skin.



#### First Aid Management

I – ce application

S – plinting





- **OPEN WOUND** – It is a break in the skin or the protective skin layer is damage.

**Puncture** - A puncture wound doesn't usually cause excessive bleeding. Often the wound seems to close almost instantly. But this doesn't mean treatment isn't necessary. A puncture wound — such as from stepping on a nail — can be dangerous because of the risk of infection.



**Abrasion / Graze** - is a wound caused by superficial damage to the skin, no deeper than the epidermis. It is less severe than a laceration, and bleeding, if present, is minimal. Mild abrasions, also known as grazes or scrapes, do not scar or bleed, but deep abrasions may lead to the formation of scar tissue.



**Laceration** - A laceration is a wound that occurs when skin, tissue, and/or muscle is torn or cut open. Lacerations may be deep or shallow, long or short, and wide or narrow. Most lacerations are the result of the skin hitting an object, or an object hitting the skin with force.



**Cuts / Incision** - Incised wounds are sharp cut-like injuries, made by knives etc. The edges of the wound will vary according to the nature of the cutting edge of the object.



## MANAGEMENT FOR OPEN WOUND / EXTERNAL BLEEDING 4C'S

C - ontrol bleeding (apply direct pressure / elevate the wound)

C - lean and cover the wound (gauze and bandage)

C - are for shock

C - onsult physician / Call 998/999



## SPECIFIC BODY INJURIES

**AMPUTATION-** Amputation is when the complete body part is detached or partially detached from the rest of the body. Bleeding can be severe or minimal depending on the nature of the wound.



### NOSE BLEEDING

Hemorrhage from the nose, usually due to rupture of small vessels overlying the anterior part of the cartilaginous nasal septum. Minor bleeding may be caused by a blow on the nose, irritation from foreign bodies, or vigorous nose-blowing during a cold; if bleeding persists in spite of first aid measures, medical attention is advisable.

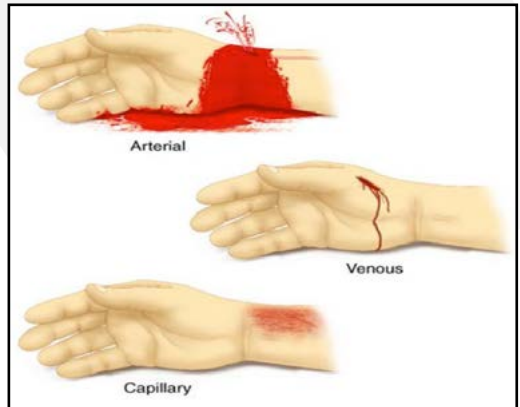


## Three Main Types of Bleeding

In preparing yourself to identify and treat different types of bleeding, you must first have a good understanding of the three distinct types of bleeding that a person can experience.

### Arterial Bleeding

This is the least common and most dangerous type of bleeding. It involves bright red blood that comes out in large volume, and in spurts that correspond with each beat of your heart.



In most cases of arterial bleeding, direct and extremely firm pressure on the wound is the best way of stopping it. If direct pressure is not applied, a severe arterial wound can cause you to bleed to death within a few minutes.

### Venous Bleeding

Deep cuts have the potential to cut open veins. A cut vein typically results in a steady but relatively slow flow of dark red blood.

The best way to stop most cases of venous bleeding is to put direct pressure on the wound.

### Capillary Bleeding

Capillaries are the smallest blood vessels in your body; they are about as thin as the hairs on your head.

When a minor scrape or cut opens some capillaries, the bleeding is almost always very slow and small in quantity. Your body's natural clotting mechanism is able to stop most cases of capillary bleeding within seconds to minutes.

## Module 11: Burn Management

**BURN** - Is an injury involving the skin, including muscles, bones, nerves and blood vessels. This results from heat, chemicals, electricity or solar or other forms of radiation.

### Classification of Burns

#### First-degree

- Superficial burn
- Damages only outer layer of skin



#### Second-degree

- Partial-thickness burn
- Damages skin's deeper layers



#### Third-degree

- Full-thickness burn
- Damages all layers of skin



## FIRST AID FOR BURN

- Cool the burned area with cold water for the minimum of 10 to 20 minutes immediately and continue until the pain is relieved
- Remove constricting items
- Cover the burned area with a dry non sticking, sterile dressing, clean cloth or cling film
- Treat the victim for shock
- Call EMS for large 2nd and 3rd degree burn



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**THANK YOU**

## **COURSES OFFERED:**

### **FIRST AID TRAINING**

- Level 3 International Award in Emergency First Aid at Work
- Highfield Level 3 International Award in Emergency First Aid at Work and Use of an AED
- Highfield Level 3 International Award in Emergency Paediatric First Aid
- Highfield Level 3 International Award in Emergency Paediatric First Aid and Use of an AED



### **FIRE SAFETY TRAINING**

- Level 1 Basic Fire Safety
- Level 2 Fire Warden/Marshal

### **HEALTH & SAFETY**

- Highfield Level 1 International Award in Principles of Health and Safety (LMS)
- Highfield Level 2 International Award in Health and Safety in the Workplace (LMS)
- Highfield Level 1 International Award in Fire Safety
- Highfield Level 2 International Award in Fire Safety

# Al Salama



998 AMBULANCE



997 FIRE



999 POLICE



991 ELECTRICITY



992 WATER