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LC Gupta's MANUAL OF FIRST AID

Management of General Injuries, Sports Injuries and Common Ailments






Edited by
Jitika Royal
Abhitabh Gupta

2nd Edition

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2 Unit

Introduction to First Aid

Section Outline

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CHAPTER 2

Principles and Concepts of First Aid

"Safety does not happen by accident."

Chapter Outline

- History
- Definition
- The First Aider
- Responsibilities of First Aider
- Golden Rules of First Aid
- Contents of the First Aid Kit
- Summary of First Aider Skill

THE FIRST AID

HISTORY

A person who gives treatment to someone suffering from a disease or an accident, to improve his condition is called an "aider," and the medical treatment given as aid is called "first aid." Though first aid was practised in various forms, it was presented to the modern era by General Esmarch (1823–1908), a German surgeon. He is remembered as the first "aider" in the history of *first aid*. He wrote two manuals, "First Aid on the Battlefield" and "First Aid to the Injured," which were used as basic guidelines in providing immediate care to the injured soldiers on the battlefield.

Later, many agencies came forward to give first aid for the injured persons, which are as follows:

- In 1877, the St John Ambulance Association of England was formed.
- In 1920, the Red Cross Society of India came forward with 400 branches all over India.

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DEFINITION

First aid is the first treatment given to a injured person with the objective of preserving life and to prevent the condition from deteriorating until proper medical treatment or attention is given.

Full Form of First Aid

F: First

I: Information/Investigation

R: Resourceful

S: Sympathetic/Symptom

T: Tactful/Treatment

A: Assistance/Ambulance

I: Immediate

D: Disposal/Doctor

Aims of First Aid

- To preserve life.
- To prevent further injury.
- To promote recovery.
- To help to ensure safe transportation to the nearest healthcare facility.

Preserve Life

First aid should focus on controlling and restoring vital signs such as airway, breathing, and heartbeat, as well as stopping bleeding. First aid is given to preserve the life of the person.

Prevent Further Injury

First aid should protect the injured person from further injury, either physically or mentally. It should intervene in situations that prevent the original injury from worsening, e.g., using splints in the case of injured person with fractures.

Promote Recovery

The basics to promote recovery in first aid would be to encourage confidence, provide comfort, and attempt to relieve pain and shift the injured person to hospital, if required.

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FUNDAMENTALS OF FIRST AID

Do's in First Aid	Don'ts in First Aid
• Stay calm • Reassure and comfort the injured person • Check for a medical band indicating a condition, such as epilepsy or diabetes • Loosen any tight clothing • Keep the injured person covered to reduce the shock	• Don't give food and drink to an unconscious person • Don't move an injured person unless you need to place him/her in the recovery position

STEP BY STEP

When any person comes across a seriously injured person, he should follow the following principles:

1. Collect the detailed history of the accident.
2. Examining the injuries **(Fig. 2.1)**.
3. Check that the person is breathing, and that the airway is not blocked; if present, administer artificial respiration.
4. Check for a pulse or no pulse in injured; if not, start cardiopulmonary resuscitation (CPR).
5. Check for bleeding; if any, give treatment.
6. Look for an emergency identification card for medical information related to injured person.
7. With the help of the diagnosis, treat the injured until the doctor arrives or shift the injured to the hospital and aid the injured during transport.
8. Call the doctor or shift the injured to the hospital as soon as possible, so that the injured can recover soon from the doctor's treatment instead of prolonging the first aid.
9. Reassure the injured try to remain calm yourself. Your calmness can allay his fear and panic.
10. Never shake or slap a person who is unconscious or semi-conscious while trying to administer fluids.



Fig. 2.1: Examining the injuries.

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THE FIRST AIDER

A first aider is an ordinary person who gives treatment for the one suffering from a disease or an accident, to improve his condition before medical health is obtained.

Qualities of First Aider

First aid is a skill based on knowledge, training, and experience. It is not an exact science and is thus open to human error and circumstances beyond our control. Do what you think is best and what you believe is right.

1. Should have good communication skills.
2. He should be a good observer.
3. Should not get panicky or excited.
4. They should have the ability to lead and control the crowd and take help from the onlookers.
5. Before being tracked, you should have self-confidence and the ability to judge injuries.
6. Should be able to reassure the apprehensive injured person and his/her anxious relative by demonstrating competence, expressing sympathy, and providing good counseling.
7. They should be able to assign somebody to call for a doctor or inform a hospital.

RESPONSIBILITIES OF FIRST AIDER

1. Assess the situation quickly and safely.
2. Protect casualties and others at the scene from possible danger.
3. Identify the nature of illness or injury affecting casualty.
4. Provision of early and appropriate treatment, treating the most serious condition first.
5. Decide on priorities of care
6. Ensure dignity of the patient.
7. Transfer the casualty to the hospital.
8. Good communication to the patient.
9. Good documentation.

The responsibility of the first aider ends when the injured person is handed over to the care of doctor, a nurse or other appropriate person.



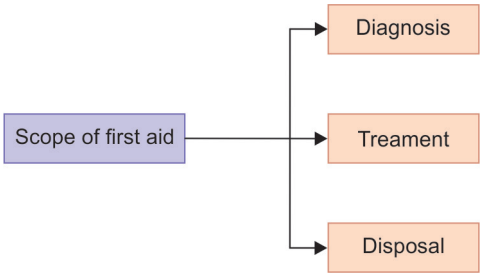
NOTE

Warning to the First Aider

1. First aider should keep in mind that he is not a doctor.
2. He should not examine wounds by opening which have already been bandaged by somebody else.
3. He should not declare any person as dead. This is not in his scope.

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Scope of the First Aid

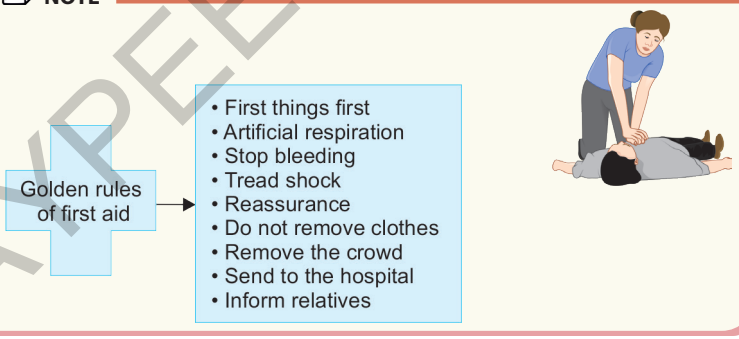


- To determine the nature of the case requiring attention so far as is necessary for intelligent and efficient treatment—**diagnosis**.
- To decide on the character and extent of the **'treatment'** to be given and to apply the treatment most suited to the circumstances until medical aid is available.
- To arrange for the **'disposal'** of the injured person by removal either to his home or other suitable shelter, or to hospital.

GOLDEN RULES OF FIRST AID

1. Do the first thing first; this includes assessing the situation for any immediate danger, quickly and methodically without panicking, giving priority to the most urgent situation/condition.

NOTE



2. Remove the injured from the cause of injury or the cause of injury from the injured person.
3. Resuscitate the injured, if necessary and carry out general treatment of unconsciousness.
4. Loosen all tight clothing or materials around the injured neck waist, wrist, etc.

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5. Arrest bleeding, cover all wounds, burns or scalds and immobilize all fractures.
6. Do not allow people to crowd a injured person and do not move a injured unless you really must (dangerous environment, risk of falling debris, explosion, etc.)
7. Reassure the injured and get help as soon as possible
8. Improvise all necessary materials, which are not readily available.
9. Guide against or treat for shock
10. Transport the injured properly.



CONTENTS OF THE FIRST AID KIT (FIG. 2.2)

First aid kit can be of any size. Kit can help you respond effectively to common injuries and emergencies. Keep at least one firstaid kit in your home. As per the Red Cross recommendation the first aid kit should include the following:

Dressing

- 2 absorbent compress dressings (5 × 9 inches)
- 25 adhesive bandages (assorted sizes)
- 1 adhesive cloth tape (10 yards × 1 inch)
- Sterile eye dressing



Fig. 2.2: First aid kit.

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Gauze Pad Medications

- 2 hydrocortisone ointment packets (approximately 1 gram each)
- 5 antibiotic ointment packets (approximately 1 gram)
- 5 antiseptic wipe packets
- 2 packets of aspirin (81 mg each)

Bandages

- 1 roller bandage (3 inches wide)
- 1 roller bandage (4 inches wide)
- 5 sterile gauze pads (3 × 3 inches)
- 5 sterile gauze pads (4 × 4 inches)
- 2 triangular bandages

Others

- Saline
- Torch: flashlight
- Soaps
- Tweezers
- Alcohol to clean equipment
- 1 blanket (space blanket)
- 1 breathing barrier (with one-way valve)
- 1 instant cold compress
- Tweezers to pull out stings.
- Scissors to cut dressing/bandage.
- Oral thermometer (nonmercury/nonglass)
- 2 pair of nonlatex gloves (Size: large)
- Safety pin

SUMMARY OF FIRST AIDER SKILL

Ensure self-safety first. Make the environment safe by following universal safety precautions:

1. Control the scene of accident.
2. Evaluate the scene in terms of safety and possible cause of accident.
3. Gather information from injured person and bystanders.
4. Determine vital signs (pulse, breathing, skin temperature)
5. Determine diagnostic signs and relate those to possible injuries or sudden illnesses that require emergency care.
6. Perform the necessary CABs of emergency care.
7. Circulation (pulselessness—provide one and two rescuers cardiopulmonary resuscitation)

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8. Open airway.
9. Breathing (breathlessness—provide artificial ventilation)
10. Care for shock.
11. Provide comfort and emotional support.
12. Care for soft tissue and internal injuries including basic dressing and bandaging techniques.
13. Diagnosis and care for open and closed fractures, sprains, strains, and dislocations, including cold treatment and basic splinting techniques.
14. Detect and care for poisoning including alcohol and drug abuse.
15. Diagnosis and care for heart attack, stroke, diabetic, coma, insulin shock, and epileptic or other seizures.
16. Diagnosis and care for facial injuries, head injuries, neck and spinal injuries and chest injuries including fractured ribs, flail chest and penetrating chest wounds.
17. Diagnosis and care for burns and smoke inhalation.
18. Diagnosis and care for exposure to heat and cold which includes heat cramps, heat exhaustion, heat stroke, hypothermia, and frost bite.
19. Assist in childbirth and care of the newborn.
20. Psychological and proper emergency care to injured person of crises and disasters.
21. Perform proper transformation techniques.

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LC Gupta's MANUAL OF FIRST AID

Management of General Injuries, Sports Injuries and Common Ailments

Salient Features

- Thoroughly updated revised edition and content is organized in an conceptual and integrated approach
- Covers all important aspects of first aid
- More than 500 figures, tables, boxes and bulleted lists are used for the clear visualization of concept
- Revision and self-assessment questions
- Includes significant terminologies for quick in hand reference and some brain teasers in the form of fun games for better learning.
- Complementary online bandage draping videos included.

Jitika Royal has completed her Bachelors from Laxmi Bai Batra College of Nursing, New Delhi, India and later pursued her MSc Nursing in Mental Health (Psychiatry) Nursing from Rufaida College of Nursing, Jamia Hamdard University, New Delhi. She has many years of teaching experience with numerous research publications to her credit.

Abhitabh Gupta currently holds a key position at Ace Insurance Brokers, which is one of the largest insurance broking companies in India. He is a known name in the health insurance sector and is the founding member of insurance TPA industry in India. With over two decades of experience in insurance and healthcare, he was the Chief Executive of a well-known TPA in India.

He is a business development professional with strong relationships across various sectors. He is a Radiologist by academic qualification and an author of 11 medical books. He has been part of several committees constituted by the Ministry of AYUSH, FICCI, CII, IRDA and other entities. He is also on Board of HIMSS India and is a certified independent director.

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