THIS IS A DRAFT COMPREHENSIVE MODULE FOR FIRST AID TRAINING IN SCHOOLS DEVELOPED JOINTLY BY NDMA AND IRCS.

THIS MODULE WILL BE BIFURCATED AS PER SKILLS SETS IN 3 MODULES FOR TEACHERS, STUDENTS OF 11-12th STANDARD and 8-10th STANDARD SCHOOL STUDENTS.

FOR COMMENTS, SUGGESTIONS, IMPROVEMENTS AND FEEDBACK ON THIS MODULE PLEASE WRITE TO THE CONCERNED NODAL OFFICER ON BELOW MENTIONED DETAILS.

Dr Saurabh Dalal
Consultant
(Medical Preparedness and Biological Disasters)
National Disaster Management Authority (NDMA)
(Ministry of Home Affairs, Government of India)
Address: A-1, Safdarjung Enclave, New Delhi-110 029, India
Mobile: +91 9971851043
Landline: 011 26701800
Email: drsaurabhdalal@gmail.com, saurbhdalal@ndma.gov.in

A. Basic First Aid Technique:-

1. Emergencies at school.................................................................3
2. Aims of first aid and the Law .....................................................4
3. Universal precautions...............................................................4
4. Dealing with an emergency. ......................................................5
   Step 1:- Make the area safe
   Step 2:- Evaluate the condition of the sick
   Step 3:- Seek Help
   Step 4:- Provide First Aid
5. Initial Assessment.........................................................................10
6. Recovery position........................................................................11
7. BASIC CPR ................................................................................13

B. First Aid for Medical Conditions:-

1. Choking.......................................................................................20
2. Chest Pain / Discomfort...............................................................24
3. Paralysis Attack /Stroke .............................................................27
4. Fits...............................................................................................31
5. Fainting and unconsciousness.....................................................35
6. Diarrhoea/Vomiting ....................................................................37
7. Food poisoning/ Diarrhoea/ vomiting .........................................41
8. Fever..........................................................................................43
9. Low Blood Sugar........................................................................49
10. Headache .................................................................51
11. Anxiety and Panic Attack ...........................................53
12. Psycho social conditions ............................................54

C. First aid for Injury Related Conditions

1. Bleeding ........................................................................55
2. Wound ..........................................................................62
3. Fracture, sprain and dislocation ......................................66
4. Amputation .....................................................................70
5. Eye Injury .......................................................................71
6. Road Traffic Accident and injuries .................................73
7. Head and Skull injury ....................................................75
8. Broken tooth \ Tooth Ache ..............................................78

D. First Aid for Environment Related Conditions

1. Drowning .....................................................................79
2. Burn ..............................................................................82
3. Bites and Stings ..............................................................103
4. Snake Bite .....................................................................109
5. Electric Shock ...............................................................114
6. Heat Exhaustion and heat stroke ....................................119
7. Frost Bite .......................................................................124
8. Hypothermia \ Low Body Temperature ........................129
9. Poisoning and drug overdose ........................................132
10. Air Pollution ...............................................................136
11. Laboratories Injuries ..................................................137

E. Basics for Disaster Management 138
Triage 140
A. BASIC FIRST AID (FA) TECHNIQUE

Teachers will be playing a crucial role of training their students in their First Aid actions. Hence, it is of paramount importance that teachers know about first aid actions. They are expected to know and understand what actions are required to provide First Aid to an injured and sick, how these actions are carried out and why these actions so important for the injured. It will equip them to recognise the emergency conditions and respond accordingly.

The training includes principles of First Aid, safety and security while responding in times of emergencies, recognising when First Aid needs to be given and imparts knowledge and skills to provide First Aid in case of an unconscious person with or without breathing, bleeding, wound & injuries including bites & stings, burns, fracture and conditions leading to difficulty in breathing like choking, drowning, including fits, poisoning, etc.

Teachers! Who can recognise the priority of life-saving by starting with learning about safety security, airway breathing, bleeding will save lives and reduce recovery time. Teachers who understand and can teach children that First Aid is not only about physical injuries but also about the psychological effects, which can help recovery through reassurance, support and kindness.

NB: Timely First Aid can save life. First Aid can be given by anyone, anywhere, anytime to injured and sick person

**FIRST AID IS NOT:** about treating a person or giving medication to anyone sick/ injured : about being a Doctor and diagnosing the problem

Further, teachers need to learn skills and methods required to teach First Aid to the school students. It can be an important component of the “School Safety Programme” to not only train teachers in first aid but also to furnish them with methods of teaching of First Aid. This way teacher’s will be suitably trained in conducting FA trainings for their students.

1. Emergencies at School

Children are highly vulnerable to injuries and accidents. Usually these are only minor bruises and grazes, but sometimes the child may incur a severe accidents resulting in fracture, bleeding, suffocation, fainting, burns, drowning or electric shock (etc.).

Also, a school staff member may suffer a heart attack or a have breathing problems that may need immediate First Aid.

Under these circumstances the First Aider needs to be confident to do something. Being nervous or scared is completely normal, but with First Aid training and practicing skills with role plays, scenarios or simulations, this can help school students to be confident to act and make the difference between life and death.

**FIRST AID TRAINING IS A GOOD WAY TO HELP YOU GET CONFIDENT BEFORE YOU NEED TO PROVIDE FA DURING A REAL TIME EMERGENCY. THIS BOOK WILL HELP YOU TO GIVE SOMEONE FIRST AID WITHOUT GETTING HURT YOURSELF.**
Children are liable to the same type of emergencies and injuries as adults in similar circumstances. Details on how to handle emergency cases are described in the various chapters of this training programme. The procedure of attending an emergency always remains the same and includes the following:

1. Assess the situation – Is it **SAFE for YOU as well as others**
2. Safety first
3. Alert and seek help
4. Take universal precautions for providing first aid
5. Provide first-aid/ Reassurance
6. Transport or refer to a healthcare facility, if needed
7. Hygiene - WASH YOUR HANDS, DISPOSE OF RUBBISH CAREFULLY TO STOP INFECTION SPREAD

Practicing the FA skills helps the first aider to act safely swiftly, calmly and in the correct way. There is no substitute for proper action orientated training!

### 2. Aims of First Aid

First aid is the **FIRST ASSISTANCE** or support given to a casualty or a sick person for any injury or sudden illness before the arrival of an ambulance, a qualified paramedical or medical person or before arriving at a facility that can provide professional medical care.

As a consequence of disaster emergencies or accidents people suffer injuries which require urgent care and transportation to the nearest healthcare facility.

### First Aid and the concerned law in India

#### Indian Good Samaritan Protection Guidelines

A Good Samaritan in legal terms refers to “someone who renders aid in an emergency to an injured person on a voluntary basis”.

The Ministry of Road Transport and Highways has published the Indian Good Samaritan and Bystanders Protection Guidelines in The Gazette of India in May 2015 (Notification No 25035/101/2014-RS dated 12 May 2015). The guidelines are to be followed by hospitals, police and other authorities for the protection of Good Samaritans.

The bystander or Good Samaritan shall not be liable for any civil and criminal liability. The disclosure of contact details of the Good Samaritan is to be voluntary.

The lack of response by a doctor in an emergency pertaining to road accidents (where s/he is expected to provide care) shall constitute ‘Professional Misconduct’.

### 3. Universal Precaution

It is important to always check the scene and ensure your safety first. Remember that dialling emergency number for ambulance and other related services is one of the most important steps you can take to save another’s life.

1. Your safety is first, so leave the scene if you are at risk.
2. While helping the victim, protect yourself from transmission of possible diseases/infections
Use preventive breathing barriers / personal protective equipment (PPE) when available.
Try to cover your own cuts, sores, wounds, and any skin conditions with a proper bandage before responding.

3. Use disposable gloves to avoid direct contact with blood / bodily fluids. In absence of gloves plastic bags or thick pad of cloths can be used as barrier in between.

4. Washing your hands properly is extremely important. Always use soap and water after removing your gloves/barrier.

5. If you suspect that a victim has suffered a spinal or neck injury, do not move or shake the victim.

4. Dealing with an Emergency

Emergency situations vary greatly but there are four main steps that always apply:

1. Make sure YOU are SAFE and the everybody around you is safe. Evaluate the injured person’s condition.
2. Seek help.

Step 1: SAFETY: Make SURE YOU ARE SAFE if you get hurt then you cannot help

As a first aider, you should be SAFE:
YOUR SAFETY ALWAYS COMES FIRST

S - Stop (Stop, Think, Act)
A - Assess (Scene, Hazard, Risk)
F - Find (FA Kit, AED)
E - Exposure Protection (Gloves, Universal Precaution)

- try to find out what has just happened; - Ask, shout, call
- Look around, up and down for any danger (is there a threat from traffic, fire, electricity cables, etc.?);
- never approach the scene of an accident if you are putting yourself in danger;
- do your best to protect both the injured person(s) and other people on the scene;
- Property of the injured person could be at risk of theft. Mind your safety, and seek police or emergency help if an accident scene is unsafe and you cannot offer help without putting yourself in danger.

- eg traffic accident – stop the traffic without endangering yourself, ask for help from bystanders/ Police/put cones/ triangles or branches on road to indicate a problems
- - stabilise the wheels – e.g. rocks, turn off the vehicle,
- check for flames, smoke or petrol smell

REMEMBER:
- SAFETY FOR YOU
- SAFETY FOR CASUALTY
- SAFETY FOR BYSTANDERS

Step 2: Evaluate the condition of the sick or injured PERSON:

Always check that he is conscious and breathing normally. Situations in which consciousness or breathing are abnormal are often life threatening. Hence, check for airway and breathing to maintain patency of the airway to ensure breathing and also circulation. Bleeding, spinal injuries can also be life-threatening. Techniques of the recovery position, resuscitation (CPR (Cardio Pulmonary Resuscitation) – chest compressions), and measures to stop bleeding and immobilization of broken bones etc. are life-saving measures.

The initial top to toe assessment

A general assessment can be carried out to assess any imminent threats to life and whether the casualty is conscious or unconscious. It should be executed quickly.

<table>
<thead>
<tr>
<th>Resuscitation, the stopping of bleedings and the treatment of any life-threatening issues have priority. If the condition of the casualty worsens during the examination, the necessary first aid measures should be taken immediately.</th>
</tr>
</thead>
<tbody>
<tr>
<td>During assessment, movement should be as little as possible to avoid further injuries worsening of conditions</td>
</tr>
</tbody>
</table>
SUMMARY:

**First aid** is the first assistance given to injured or sick person before the arrival of an ambulance or a qualified medical/paramedical or before he is transferred to a healthcare facility.

First Aid is not about giving medicine or diagnosing a condition.

Role of First Aider: - **Remember PACT**

**P** - Protect

**A** - Assess

**C** - Care

**T** - Transport-Triage

Always apply **4 main steps** systematically during any emergency situations:

i. **Safety first** – Make sure there is no danger to you and victim.

ii. **Check response** - is the person asleep or unresponsive – Call, Shake Shout

iii. **Seek help** - Shout or call for help if you are alone but do not leave the person unattended.

iv. **Quick assessment of victim’s condition** – Check consciousness and breathing (look, listen, feel).

Look for bleeding and other life threatening conditions & take life-saving measures such as:

- o if no breathing, start **Chest compression (CPR)**
- o If breathing present but unconscious, casualty is placed inside **recovery position**
- o If bleeding present, **stop/control bleeding** by direct pressure
- o **Immobilise bone/joint injuries** and take care when handling or moving to **prevent any injury to the spine or neck**
- o and protecting casualty from heat/cold

v. **Take complete assessment and stabilise the person as per available local resources**

<table>
<thead>
<tr>
<th>The casualty is ...</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscious and breathing normally</td>
<td>Give appropriate first aid.</td>
</tr>
<tr>
<td>Unconscious, and breathing normally</td>
<td>Put the casualty in recovery position.</td>
</tr>
<tr>
<td>Unconscious and not breathing or not breathing normally</td>
<td>Start CPR/ chest compressions: Rescue breathing(30:2)</td>
</tr>
</tbody>
</table>
Unconscious  
+  
Breathing  
=  
RECOVERY POSITION

Step 3: Seek help

Once you have evaluated the sick or injured person’s condition you can decide if help is needed urgently. If help is needed, ask a bystander to call for help. An ambulance is the best way to transport ill or injured persons, but they are not always and everywhere quickly available. **Always remember the emergency no in your area.** If Ambulance is not available, you will have to arrange transport yourself (in a van, a truck, a car, an auto-rickshaw, a motorbike, a scooter, a bike-rickshaw, a bike...). Always move the sick or injured person with great care.

**Essential information to be given in sequence after calling Ambulance:-**

What happened? (Type of emergency- chief complain?)

Number of patients
Step 4: Provide first aid

When providing first aid, try to protect an ill or injured person from cold and heat. Do not give anything to eat or drink to a person who is severely injured, feeling nausea, becoming sleepy, or falling unconscious.

Be aware that experiencing an emergency situation is a very stressful experience for the injured or sick person.

To support him through the ordeal, follow these simple tips:

**TALK TO THE injured/ sick …..REASSURES this is PSYCHOLOGICAL SUPPORT**

- Tell the sick or injured person your name; explain how you are going to help/ whether you know first aid and reassure him. This will help him to relax;
- listen to the person – the casualty can tell you what happened and what is wrong
- make him as comfortable as possible;
- if he/she is worried, tell him that it is normal to be afraid;
- if it is safe to do so, encourage family and loved ones to stay with him; and
- Explain to the sick or injured person what has happened and what is going to happen.

How to observe responsiveness and consciousness?

Unconsciousness occurs when a person is suddenly unable to respond to stimuli like sound or pain, and appears to be asleep. A person may be unconscious for a few seconds (as is the case with fainting) or for longer periods of time.

**Always react to what you see – you are not a doctor so do not try to diagnose**

CHECK RESPONSE: By shouting or asking his name (if you know) or just ask hello how you are (in language which you know) from a distance if victim doesn’t responds then go near him and

By tapping/ shaking (not in trauma patient) /pinching shoulder or any part of body

By pinching on any body parts

The person is unconscious if the person does not give any eye
movement, voice or response to voice or pain.

Checking if a casualty is conscious or unconscious should only take a few seconds and should not delay checking for the breathing.

How to observe the breathing?
The airway may be narrowed or blocked making breathing noisy or impossible.

It is essential to establish a clear airway immediately. Unblocking the breathing passage takes priority over concerns about a potential spinal injury.

To observe the breathing do following:

1. If the person is unconscious and is not on his back, turn him on to his back.
2. Kneel beside the casualty.
3. GENTLY lift the chin forwards (Should be avoided in trauma patient) with the index and middle fingers of one hand while pressing the forehead backwards with the palm of the other hand. This manoeuvre will lift the tongue forward and clear the airways.
4. After opening the victim's airway, check to see if the victim is breathing. Observe breathing by listening, feeling and looking. This should be done quickly (max. 10 seconds). Place your cheek in front of the victim’s mouth (about 3-5 cm away) while looking down his chest (towards his feet).
   You can also gently place a hand on the centre of the victim's chest. This allows you to observe whether the victim is breathing in the following ways:
   a. **look** for chest/abdominal movement,
   b. **listen** to breathing sounds,
   c. **Feel** the air coming out of the nose or mouth.

   In the first minutes after cardiac arrest it often appears as if the person is trying to breathe. It can appear as if the person is barely breathing or is taking infrequent noisy gasps. It is important not to confuse this with normal breathing and you should start chest compressions immediately.
5. If the casualty’s chest still fails to rise, first assume that the airway is not fully open. Once the airway is cleared the casualty may begin breathing spontaneously.

Clear the airway by removing any visible item that is blocking the airway:

a. Hook your first two fingers covered with clean cloth/gloves.

b. Sweep round inside the mouth/throat. Only if you can see object clearly (NO BLIND SWEEP)

c. Check again the breathing.

⚠️ DO NOT spend time searching for hidden obstructions because you might push any object further down the throat OR the casualty might bite your fingers

⚠️ Be careful: do not put your fingers in somebody’s closed mouth.

**RECOVERY POSITION**

**SKILL SET: FIRST AIDERS ACTION FOR A CASUALTY WHO IS UNCONSCIOUS AND BREATHING**

**Do’s**

- Kneel down by the side of the casualty
- Put the person on one side doesn’t matter left or right, towards you or opposite side (depends on context) but making sure that victim doesn’t roll back

- Place the person’s arm on the side you are kneeling at right angles to his/her body and bend the forearm upwards with palm facing up
- Lay the person’s other arm on his/her cheek on the side at which First Aider is kneeling
- Grasp the leg on the other side of the person’s body under the knee and raise that leg keeping the person’s foot on the ground
- Pull the raised leg and roll the person towards you so he turns on his side
- Upper leg of the person should place in such a way that his hip and knee are at right angles.
- The person is now in a turned position and will not turn on his back.
• Open the airway by head tilt and chin lift to maintain airway patency and prevention from any obstruction e.g. vomiting. Mouth is angled towards the ground. This will help blood or vomit to flow out instead of flowing in to airway/lungs

RECOVERY POSITION

*Figure 1: This is not essential but nice to move arm*

Put your hand on his shoulder and pull not the arm
Bring the Knee across to the floor to stabilise. Make sure the chin is up to allow for vomit to come out

This casualty lying position is commonly referred to as the ‘recovery position’

monitor, keep warm and call for help to transfer to hospital

If the Person is NOT BREATHING or NOT BREATHING NORMALLY
a. The resuscitation guidelines for laypeople if a person is not breathing OR not breathing normally (like you do) then immediately start Chest Compressions (CPR)

DO NOT TAKE THE PULSE – this wastes time and for unskilled people it is difficult to do during an emergency and not necessary for teachers and school students

Resuscitation (basic CPR – chest compressions)
Reviving someone who is unconscious and/or not breathing or not breathing normally is called resuscitation and it includes chest compressions and rescue breathings. The chest compressions ensure a small but crucial supply of blood to the heart and brain. For babies and children under one year, compressions with breaths are always recommended.

Skill Set: First aid action for CPR

1. Turn the casualty on his back on a hard surface, if not already.
2. Kneel next to the casualty, beside his upper arm.
3. Place the heel of one hand in the centre of the person’s chest. **Do not apply pressure to the person’s ribs or the abdomen**

4. Place the heel of the other hand on top of your first hand.

5. Lock your fingers of both hands together.

6. Make sure your shoulders are directly above the person’s chest.

7. With straight arms, elbows locked, push five to maximum six centimetres downwards – about the size of someone’s thumb. (Push hard)

8. Release the pressure and avoid leaning on the chest between compressions to allow full chest recoil. The compression and release should be of equal duration.

   Each time you press down allow the chest to rise fully again. This will let blood flow back to the heart.

9. Do not allow your hands to shift, bounce or come away from the chest.

10. Push Fast: Give 30 chest compressions in this way at a rate of 100 compressions a minute (you may go faster, but not more than 120 compressions a minute). This equates to just fewer than two compressions a second.

---

**CPR: How to give rescue breaths?** Rescue breathing is optional for non-medical people

If for some reason you **cannot or do not want to give rescue breaths**, you can just continue giving chest compressions (five to maximum six centimetre deep at a rate of 100 compressions a minute).
1. Put one hand on the person’s forehead and tilt back his head.
2. Put your other hand on the bony part of the chin and lift the chin.
3. Then pinch the person’s nose with one hand that is on his forehead.

Take a normal breath and then put your mouth completely over the person’s mouth and seal with your mouth. Calmly blow your air into the mouth of the person’s and simultaneously First aider can check chest rise while s/he blows air into the mouth of victim and remove your mouth for next rescue breath to fill fresh air (but don’t waste much time on doing this).

4. Give a second rescue breath and start **IMMEDIATELY** another series of 30 chest compressions prior to trying to blow air into the person’s mouth again.

   | Make no more than two attempts to blow air into the person. |

5. Continue with chest compression and rescue breaths at a ratio of 30:2.

   Do not interrupt the resuscitation until:
   - the victim starts to wake up, moves, opens his eyes and breathes normally;
   - medical personnel/ambulance arrives and takes over;
   - you become too exhausted to continue (most likely scenario); or
   - The area becomes unsafe for you to continue.

| Chest compressions and rescue breaths are PHYSICALLY TIRING TO DO. If there are a few trained rescuers present, it is best to alternate with each other. |
| ANY TRANSITION BETWEEN RESCUERS SHOULD BE DONE SMOOTHLY TO NOT INTERRUPT COMPRESSIONS |
| TALK TO EACH OTHER TO COORDINATE |

**Resuscitation of baby/child (less than one year old) who is not breathing or not breathing normally**

**How to secure an open airway of a baby/child less than one year old?**

The airway may be narrowed or blocked making breathing noisy or impossible. It is essential to establish a clear airway immediately. Unblocking the breathing passage takes priority over concerns about a potential spinal injury.

6. Lay the baby/child down on the floor or hard and safe surface.

7. Place your hand on his forehead and gently tilt his head back to make head in neutral position to the body. At the same time,
with your fingertip(s) under the point of the child’s chin, lift the chin so it is neutral. Do not push on the soft tissues under the chin as this may obstruct the airway. This is especially important in infants. This manoeuvre will lift the tongue forward and clear the airways.

8. Check for breathing.
   a. **Look** for chest/abdominal movement.
   b. **Listen** to breathing sounds.
   c. **Feel** the air coming out of the nose or mouth.

If the baby still does not breathe, begin CPR immediately.

**How to give chest compressions on a baby/child less than one year old?**

1. Compress the chest with the **two fingers** (middle and index finger) at the **centre** of the baby’s/child’s chest on its breastbone at the level of the line joining two nipples.
2. Compress one third of the depth of the chest of the baby/child.
   
   **Do not use the base or palm of your hand. REMEMBER A BABY IS SMALL**

3. Repeat these compressions 30 times at a rate of 100-120 per minute.
   Release the pressure completely between compressions without removing your fingers from the chest.
4. Always make sure the chest rises before pressing down again.

**CPR: How to give rescue breaths on a baby/child less than one year old?**

1. Move the baby’s/child head backwards and lift its chin slightly.
2. Cover the baby’s/child’s nose and mouth with your mouth and gently puff into his mouth only until you see his chest rise, pausing between rescue breaths to let the air flow back out.

   **Remember that a baby’s lungs are much smaller than yours, so it takes much less than a full breath to fill them.**

Check if the baby’s/child’s chest rises.
If the chest does not rise, take following steps:
a. Check if anything is in the baby’s/child’s mouth. If so, remove any visible items that may block the airway.

b. Check that the head is well tilted and the chin is lifted properly.

In any case: make no more than two attempts to blow air into the baby/child.

3. Give a second rescue breath and start another series of 30 chest compressions prior trying to puff air into the baby’s/child’s mouth again. Continue with chest compression and rescue puffs/breaths at a ratio of 30:2. Do not interrupt the resuscitation until:

- the child starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over; or
- The area becomes unsafe for you to continue.

When to refer to a healthcare facility?

Always – urgently: Any person that has stopped breathing or needed CPR should always be transported to the nearest healthcare facility as quickly as possible continuing CPR ON A HARD SURFACE.

When can I stop providing CPR?

The question arises when your first aid ‘duty’ comes to an end?

Within first aid, CPR is a lifesaving activity. But when you can stop giving CPR? There are four reasons allowing you to stop CPR:

- you see a sign of life, such as breathing;
- someone trained in first aid or a medical professional takes over;
- you are too exhausted to continue; or
- The scene becomes unsafe for you to continue.

MANAGING UNCONSCIOUS CASUALTY WITH SUSPECTED NECK OR SPINE INJURIES

Spinal or neck injuries can happen as a result of direct force, blunt force hyper extension / flexion. Examples are – car accidents, bike accidents, diving, falling from a height.

Skill set: First Aiders Action

- Check the area for safety
- Call out to check for response – is the casualty unconscious?
- Check airway by gently putting neck and spine in neutral alignment
- If the casualty vomits move to recovery position ROLL LIKE A LOG OF WOOD OR A TREE TRUNK. The whole body and head moves together to keep position neutral. This will involve help of at least 3 people with 1 person looking after head and neck and in control to communicate 1-2-3-roll
Keep persons head still, place your hands or place any material which is firm on each side of the casualty’s head to limit/restrict neck movement. If the injured if conscious and does not allow you to hold his head, do not enforce.

Transport him to a healthcare facility

**Don’t**
- Don’t try to change the position of the person
- Do not give the casualty anything to drink or eat
- Do not leave the person alone

*DO NOT TURN THE HEAD TO THE SIDE WHILE THE BODY STAY FLAT ON*

**Making support around the neck and head to restrict their movement - be ready for LOG roll**

**REMEMBER FIRST AID HAS LIMITS AND YOU CANT SAVE EVERYONE ALL OF THE TIME**

*IF YOU ONLY HAVE ONE PERSON AND YOU NEED TO DO A LOG ROLL THEN DO YOUR BEST TO LOOK AFTER THE NECK – IF THEY VOMIT UNCONSCIOUS ON THE BACK A PERSON WILL PROBABLY CHOKING ON VOMIT*

**SUMMARY FOR SCENE ASSESSMENT UNCONSCIOUS CASUALTY**

**KEY POINTS**

1. **SAFETY** always comes first – your safety, casualty safety, bystander safety
2. Check **RESPONSE** – Call, shout shake
3. **NO RESPONSE** – call for HELP – mobile, bystanders, shout call
4. Check **AIRWAY** - A. Head tilt, chin lift **OR**
   B. if spinal injury suspected gentle chin lift and neutral alignment
5. Check **BREATHING** – Look listen Feel for breathing minimum 10 seconds (count)
6. Unconscious Breathing **NORMALLY** – turn to side **RECOVERY Position OR Log Roll**

**WHY:** PROTECT CASUALTY AIRWAY FROM BLOCKAGE AND VOMIT

7. Unconscious and **NO/ABNORMAL BREATHING** –

**WHAT TO DO**
**CPR:** CHEST COMPRESSIONS
30 Compressions: 2 breathes (IF YOU WANT)

**HOW TO DO:** PUSH HARD
PUSH FAST
MIDDLE OF CHEST: Adult 2 hands; child 1 hand; baby 2 fingers

**WHY** – TO MOVE BLOOD FROM HEART TO HEAD

**WHY TO STOP** – TOO EXHAUSTED
- MEDICAL HEALTH ARRIVES
- CASUALTY SHOWS SIGN OF LIFE
- BECOMES TO UNSAFE TO CONTINUE

REMEMBER: REASSURANCE, TALKING

: DIGNITY AND PROTECT FROM ENVIRONMENT

: TRANSPORT TO HEALTH FACILITY

Key message for **PSYCHOLOGICAL support**

Look after yourself
Talk to people about what happened what you did or didn’t do and how you feel about this

It is normal to feel scared, upset, shocked, sad or even angry when you see or help in an emergency

REMEMBER:

FIRST AID HAS LIMITS. YOU CAN’T SAVE EVERYONE ALL OF THE TIME
B. First Aid for Medical Emergency

Chapter 1:- Choking

Definition

Choking is partial or complete blockage of the windpipe Unintentional swallowing of small objects (toys, coins, balloons, marbles, broken teeth, dentures, etc.) usually happens when somebody speaking while eating.

Seek medical help if:-

- The victim displays the universal choking sign
- The victim is unable to speak, cry (for infants), breathe, or cough.
- The victim has sudden difficulty breathing after taking Food/liquids/small items.
- The face becomes blue [illustration]
- The victim breathes noisily.
- The victim becomes unresponsive.
- The victim is continuously coughing after taking something in the mouth.

Actions before the ambulance arrives

Partial choking:

If the victim appears to be choking but is coughing continuously

- Encourage him/her to continue coughing to expel item.
- Avoid any chest/abdominal thrust or back blows.

Complete choking:
For adults

- Ask if the victim if he/she is choking and can he speak
- If he/she is unable to speak, Seek medical help
- Reassure the victim that you know how to help him/her.
- Stand behind the victim and tell him/her to spread their feet slightly apart.

- At the same time, use your own foot to tap the inside of their feet to help them spread their feet apart.
- Place your foot in between the victim’s feet.

- Make a fist with one hand and place it below the bottom of the chest bone and above the navel. Make sure your thumb is pressed against the victim’s body
- Grasp the fist tightly with the other hand.
- Pull your clenched fist and hand firmly inward and upward until the item is expelled or the victim becomes unresponsive.

- Continue this until the item is expelled from the mouth or the victim becomes unresponsive

Victims who are choking while lying down

- If you find a responsive victim lying down, perform abdominal thrusts with the victim lying down.
- Keep the victim’s waist tightly between your knees while you are kneeling down.
- Keep one hand on the other against the victim’s abdomen below the bottom of the chest bone and above the navel.
Thrust inward and upward until the item is expelled or the victim becomes unresponsive.
Continue this until the item is expelled from the mouth or the victim becomes unresponsive.
Observe for speaking or coughing as a sign that the item has been expelled.

**Pregnant and Overweight Victims**

Do chest thrusts by placing the fist just below the nipples and pulling inward and upward.

**For children 1-8 years old**

- Ask if the victim if he/she is choking.
- If he/she is unable to speak, Seek medical help.
- Reassure the victim that you know how to help him/her.
- Kneel behind the victim and tell him/her to spread their feet slightly apart. Place your leg in between the victim’s feet.
- Make a fist with one hand and place it below the bottom of the chest bone and above the navel. Make sure your thumb is pressed against the victim’s body.
- Grasp the fist tightly with the other hand.
- Pull your clenched fist and hand firmly inward and upward until the item is expelled or the victim becomes unresponsive.
- Continue this until the item is expelled from the mouth or the victim becomes unresponsive.

**For children < 1 year old**

- Sit or kneel down, keeping the infant in your lap.
- If it is easy to do, open the infant’s clothes to expose the chest.
- Position the infant with the face down on your arm so that the infant’s head is lower than the chest. Make sure your arm is supported by your leg.
- Stabilize the infant by supporting the infant’s jaw with your hand, being careful not to block the nose or mouth or press on the throat.
- Lock the infant’s leg into the arm.
- Locate the point just between the shoulder blades in the back.
- Deliver 5 forceful back slaps just between the shoulder blades using the heel of your free hand.
- After delivering the back slaps, place your free hand on the infant’s head with your arm resting along the infant’s back so that the infant is between both of your arms.
- Turn the infant, who is supported between both of your arms. Support the head and neck.
• Switch the infant onto the other arm so that the infant’s face is upwards, keeping the head below the chest.
• Locate the point between the two nipples and slightly below them.
• With the first two fingers of the free hand, deliver 5 quick downward thrusts so that the chest is compressed 1/3 to 1/2 of the way down.

![Image of chest thrust]

This method of chest thrust is only to be used on babies under the age of one year.

• Look inside the mouth to see if the object is expelled. Remove the object ONLY if you can see it.
• Continue this cycle until the item is expelled from the mouth or the infant becomes unresponsive.

**If the victim becomes unresponsive:**

• Start CPR
• Before giving breaths during CPR open the mouth to see if the item is inside and remove it.
• If you do not see the object, continue doing CPR.

### When to refer a choking person a healthcare facility?

- **Always urgently transport the person to the nearest healthcare facility if he lost consciousness.**

Always urgently transport a choking baby or child for a check-up and follow-up to the nearest healthcare facility, even if the obstruction came out and the baby or child is breathing normally again.

- Always advice the person to visit healthcare facility as soon as possible if an abdominal thrust has been applied.

### Do NOT

- Do NOT attempt to do abdominal thrusts or back blows/chest thrusts if the victim can cough, speak, or cry.
- Do NOT attempt to blindly sweep your finger in the victim’s mouth to remove any obstructing item. Only remove an item if you can see it and if it is easily within reach.
Chapter 2: Chest Pain and Chest Discomfort

Universal Sign of Heart attack: - A person will be holding his clinched fist or palm in middle of chest and complain of heavy or squeezing pain like somebody seating on chest

When a person complains of chest pain, always suspect an impending heart attack. However, not every chest discomfort or pain is a heart attack.

What do I see and enquire?

What does the person look like: - Complaining of pain or crushing feeling in chest, worse on exercise: pain might go down an arm or into the back, shoulder, Might look pale and cold/ sweaty.

You might observe the following signs and symptoms when a person is having a heart attack:

- discomfort, tightness or pain in the chest;
- pain spreading to the shoulder, neck, jaw
- dizziness and fainting;
- sweating;
- difficulty in normal breathing;
- nausea and vomiting; or distress

- The pain remains longer than 15 minutes.
- The pain is provoked by effort (exertion pain).
- Known Heart problem

What do I do? First Aider Action:-

Safety first and call for help

1. Make sure there is no danger to you and the person.

2. The person urgently needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.
3. Make the person lie down in a comfortable position, or propped up position if lying down is not possible. A semi-reclined position is often the most comfortable for such cases. DON’T FORCE

4. Ask him to rest and not move. He should rest wherever he is at that moment.

5. Loosen tight clothing for more comfort.

6. Reassure the person and tell him what is happening.

7. Ask if the person is taking medication for his heart condition. If so, allow the person to take the prescribed medication.

   If the person has prescribed nitro-glycerine with him, it is safe for him to take up to three doses.

8. Single dose of chewable Aspirin 325 mg can be given if readily available.

9. Arrange urgent transport to a nearby healthcare facility or hospital.

10. Keep observing the person in case he collapses.

   **WHAT DO I DO WHEN THE PERSON BECOMES UNCONSCIOUS, BUT IS STILL BREATHING?**

   a. Put the person in the recovery position.

   b. Do not leave the victim alone and continue to observe him.

   **WHAT DO I DO WHEN THE PERSON STOPS BREATHING?**

   Perform CPR.

   Do not interrupt the resuscitation until:

   - the victim starts to wake up, moves, opens his eyes and breathes normally;
   - help (trained in CPR) arrives and takes over;
   - you become too exhausted to continue; or
   - the scene becomes unsafe for you to continue.
When to refer the person to a healthcare facility?

Always urgently seek urgent medical assistance or transport the person to the nearest healthcare facility when you suspect that he is suffering from a heart attack. A heart attack is a life-threatening condition.
Chapter 3: Paralysis \ Stroke

Stroke

‘Stroke’ is a rapid loss of brain function due to a disturbance in the blood supply to the brain. It might result in difficulty in moving, speaking, understanding, etc. Symptoms occur suddenly or over the time.

Strokes occur commonly in later life and in persons that suffer high blood pressure or other circulatory disorder

What do I see and enquire?

You might observe following signs and symptoms:

- The person complains of numbness;
- The person complains of blurred vision;
- The person talks with a slurred speech;
- The person complains of severe headache;
- The person seems confused;
- You may observe:
  - weakness or paralysis of the limbs,
  - Weakness or paralysis in the face.
- Sometimes the person might even have loss of consciousness.

The possibility of stroke should always be considered when there is:

- a sudden weakness or numbness of the face, arm or leg, especially on one side of the body; and/or
- a sudden trouble in speaking, seeing or understanding.

What do I do? First Aider Action:-

4. If you think someone is suffering from a stroke, you can ask the person to perform three simple actions to check.

You can easily remember this via the mnemonic ‘FAST’: Face – Arm – Speech and Transport.

Remember F.A.S.T

- Facial droop to one side
- Arm & leg weakness/numbness on one side of the body
- Slurred speech
- Transport Patient urgently to nearest suitable Medical facility
F – FACE

5. Ask the person to smile or to show his teeth.
   Check whether the mouth drooping at one corner.
   There might be saliva dripping out of the mouth.

A – ARM

6. Ask the person to close his eye and lift both arms.
   Check whether he can do this without one arm dropping or drifting. Can he do this? Is one arm lower than the other?
   A stroke often causes one side of the body to become weak or even paralyzed.
   The person might also have lost his balance.

S – SPEECH

7. Ask the person to repeat a simple sentence after you. Check whether he can speak clearly or if he has problems in saying the words.
A stroke is very likely if the person has difficulties with any of the above actions.

T – TRANSPORT

8. Arrange transport quickly. The earlier the person is treated, the better is the outcome. Try to find out when the problem started, note it down and report it.

9. If you think the person suffers from a stroke, the person urgently needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility. Tell him to come back to you to confirm if help has been secured.

10. If the person can sit up, make him to sit upright. This helps the person to breathe.

11. Comfort the person and explain what is happening. Tell the person to relax and rest.

12. He should not try to do anything.

13. Do not give food or drink to the person having a stroke. There is an increased risk of choking or vomiting.

14. Keep checking that the person is awake and breathing properly.

15. Arrange urgent transport to a healthcare facility.

16. Always wash your hands after taking care of a person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

What do I do if the person is unconscious, but is still breathing?

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing

What do I do when the person stops breathing?

Start CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained on CPR) arrives and takes over;
- you become too exhausted to continue; or
- the area becomes unsafe for you to continue.

**When to refer to a healthcare facility?**

Always arrange urgent transport to the nearest healthcare facility. This should be done even if the symptoms improve.

It is very important to note the time when patient was seen normal without sign and symptom.

**Do NOT**

- Do NOT delay calling AMBULANCE.
- Do NOT give the victim any food, water, or tablets (including aspirin) by mouth.
- Do NOT permit the victim to move.
- Do NOT continue to drive if you think you are experiencing a stroke.
CHAPTER 4 :- FITS

Fits – Convulsions – Seizures

A person has a fit (a seizure or convulsions) if he suddenly shakes uncontrollably. It is different from normal shivering and trembling. It may manifest in all limbs or just be limited to a single limb.

The person having the fit may urinate and defecate without control.

Children under the age of four often develop fits as a result of high temperature (fever) caused by infectious diseases. A child having a fit should be brought to a nearby healthcare facility for urgent examination by a doctor.

What do I see and enquire?

You may observe following signs and symptoms:

- sudden uncontrollable shaking;
- falling down on the floor;
- loss of consciousness;
- foaming at the mouth;
- irregular breathing;
- drooling;
- passing of urine or stool;
- the person is biting on his tongue or cheek, or
- the person might have earlier mentioned that he smelled, felt, tasted, heard or saw things differently.

If the fit is due to high temperature (fever):

- the skin might then feel hot and look reddish.

What do I do? First Aider Action:-

Safety first

Make sure there is no danger to you, the person or bystanders.

Provide first aid
Remove objects that could hurt the person.

Do not hold the person down (do not restrain the person).

If possible, put something soft (cushion, clothing) under the head if the person is lying on the floor.

Make sure the person can breathe freely by loosening tight clothing around the neck (collar, tie).
Do not put anything into the person’s mouth to prevent biting his tongue.

A person cannot swallow his own tongue during a convulsion. The person might bite his own tongue, but this normally heals in a few days.

Do not put your fingers in the person’s mouth.

An object or a hand placed in the mouth of someone having a convulsion is dangerous for the person and yourself.

For a child with high fever:

a. Remove clothing and blankets and ensure there is enough fresh air.

b. Do not make the child too cold.

c. Put pillows and soft padding around the child so that he cannot hurt himself.

d. If possible, put the child in the recovery position.

d. Sponge the child with water at room temperature.

When the fit stops: put the person in the recovery position

Stay with the person till he gets better.

Reassure the person, parents and bystanders.

Do not give food or drinks to a child or person that has just had a fit.
When to refer to a healthcare facility?

Always arrange urgent transport to the nearest healthcare facility if:

a. The person has high fever.

b. The person did not wake up between fits.

c. The person stopped breathing, or the situation worsens.

d. This was the person’s first fit (and he has no fever).

e. The person is under influence of drugs or alcohol

Always refer the person who has suffered a fit to a healthcare facility for further treatment.
Chapter 5: Fainting and Unconsciousness

Definition
Sudden and temporary loss of consciousness. It generally occurs for a short period of time.

Fainting can occur due to various reasons such as emotional distress, tiredness, hunger, standing up for long period, a sudden change in body position, being a long time in a hot environment, or specific medical conditions. Pregnant women, children and the elderly can be more vulnerable to these causes.

1. Loss of consciousness causes the muscles to relax. During the period of unconsciousness the tongue might fall backwards and block the breathing passage.

What do I do?

Safety first and call for help
Make sure there is no danger to you, the person or bystanders.

Provide first aid
Talk loudly to the casualty. Tap him on the shoulders and ask if he is ok. Do not shake the person too roughly.
Check if the casualty is conscious or unconscious and act accordingly.

Todo so:
Talk loudly to person, shake him gently
If there is no response, pinch the person and check if he opens his eyes or moves.

The first aider can measure and record a person's responsiveness and level of consciousness using the AVPU scale

What do I do when the casualty responds?
Try not to change the position of the person if there has been a head, neck, back, leg or arm injury.
Try to find out what happened to the person.
Tell the person to stay calm and not to move (if at all possible).
Lay the patient down with the feet resting on 2-3 pillows or elevate the feet by approximately 1 foot above the ground.
What do I do when the casualty does not respond?

Try not to change the position of the person if there has been a head, neck, back, leg or arm injury.

If the person is breathing, put him in the recovery position.

What do I do when the person stops breathing?

Follow CPR Steps.

When to refer to a healthcare facility?

- Always urgently transport an unconscious person to the nearest healthcare facility.
- Anyone who has become unconscious or who is feeling sick, has pain after fainting (e.g. in the head or heart region, or from trauma resulting from the fall), is on medication or is being treated for a medical condition, should always seek medical help.
Chapter 6: Diarrhoea/ Vomiting

Diarrhea

Diarrhoea is the passage of three or more loose or liquid stools per day, or more frequently than is normal for the individual. It is usually a symptom of gut infection.

A person can catch this infection by:

- drinking contaminated water;
- preparing food with contaminated water;
- eating unsafe food, such as fish that was caught in polluted water;
- food that has not been kept cold or has gone bad;
- touching faeces; or
- not washing his hands properly

Diarrhoea causes dehydration as too much water and nutrition leaves the body. If the sick person does not receive help, he can die. Babies and children are most at risk of dehydration.

If both fever and diarrhoea occur together, laypersons often focus on fever only and not enough attention is paid to replacing lost fluids due to diarrhoea.

What do I see and enquire?

You may observe following signs and symptoms:

- The sick person has frequent loose or liquid stools.
- The sick person has an urgent need to defecate and might have trouble to keep it under control. Even after defecation person may complain of feeling of incomplete evacuation.
- Often the sick person complains about pain in the abdomen (cramps).
- The abdomen might appear bloated or tense.
- The sick person complains of feeling unwell.
- Fever might be present.
- There might be nausea and/or vomiting.
- The sick person might be passing blood and/or mucus in stool.
What do I do? First Aider Action

Hygiene

Wash your hands before taking care of the sick person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

Use gloves to protect yourself. If no gloves are available, you can use a clean plastic bag. Try not to come in contact with the person’s stool or vomit.

Prevent dehydration

Prevent dehydration by giving plenty of fluids to the sick person. Ask the sick person to drink the equivalent of what he lost every time he passes loose stools:

<table>
<thead>
<tr>
<th>AGE</th>
<th>Water intake per stool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Person</td>
<td>5-10 ml per kg body weight</td>
</tr>
<tr>
<td>2-10 Years</td>
<td>100-200 ml i.e between half to full large cup each time they pass stool</td>
</tr>
<tr>
<td>Above 10 Years</td>
<td>Atleast 200 ml one large cup</td>
</tr>
</tbody>
</table>

Feed the sick child more frequently.
Tell the mother to continue to give breast feeding with a higher frequency.

Tell the mother to continue to give bottle feeding (for bottle-fed children only) with a higher frequency. Use the same milk as usual.

Advice the sick person to avoid fruit juices.

Let the sick person drink (if available) ORS (package bought at chemist or available at Govt. healthcare facilities free of cost).

Prepare and use as instructed on package.

If no ORS is available, you can prepare a homemade sugar and salt solution:

- Take one litre of safe clean water (boiled and cooled clean water).
- Add eight teaspoons of sugar.
- Add one teaspoon of salt.
- Mix well.

If the sick person also vomits, wait five to ten minutes before giving another drink. Then ask the person to drink slowly or give it by spoon.
You may give the sick person curd or rice-water (if available).

The sick person can eat light food.

If a person has to travel, provide drinks so that he can take in fluids on the way.

Hygiene

Wash your hands after taking care of the sick person or if you came into contact with stools or vomit or you used the toilet. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available. When to refer to a healthcare facility?

Medical help if his condition worsens. This includes passing blood and mucus in stool, having fever, developing dehydration, or if diarrhoea does not get better within 2 days. If having any of the following symptoms:

- has blood in the stool,
- has fever,
- suffers from severe sleepiness or is difficult to wake up or is confused,
- urinates less and the colour of the urine darkens,
- has sunken eyes,
- cries without tears,
- has a dry mouth,
- does not drink,
- has repeated vomiting,
- has fits,
- has fast breathing, or
- the diarrhoea does not get better within two days.

When transporting the person to a healthcare facility, provide drinks so that he can take in fluids on the way.
Chapter 7: Food Poisoning, Diarrhoea and vomiting

Food poisoning

Usually people loosely refer to all cases of gastroenteritis (vomiting, diarrhoea) caused by contaminated food as having food poisoning. Infectious organisms including viruses, bacteria and parasites are the most common causes of food poisoning. The person may become sick in a few hours these cases can be managed as other cases of diarrhoea.

Sometimes, food is directly contaminated by toxins produced by organism, in such cases, the person usually becomes unwell very soon after consuming the food and the main symptom is vomiting.

What do I see and enquire?

You may observe following signs and symptoms:

- The sick person has nausea or vomits.
- The sick person complains about cramping and abdominal pain.
- The sick person has diarrhoea.
- The sick person might complain of a headache.
- There might be fever.
- The sick person might have impaired consciousness.

Several people sharing the contaminated food fall ill at the same time, as in a marriage.

What do I do?

Hygiene

Wash your hands before taking care of the sick person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

Use gloves to protect yourself. If no gloves are available, you can use a clean plastic bag. Try not to come in contact with the person’s vomit, stool or fluids.

Provide first aid

Advise the sick person to lie down and rest.
Prevent dehydration if the sick person suffers from vomiting and/or diarrhoea

Observe the sick person; when his condition worsens, refer him to the nearest healthcare facility.

**WHAT DO I DO WHEN THE PERSON BECOMES UNCONSCIOUS, BUT IS STILL BREATHING?**

Put the person in the recovery position.

Continue to observe the person’s condition and breathing.

**WHAT DO I DO WHEN THE PERSON STOPS BREATHING?**

**When to refer to a healthcare facility?**

- Always urgently transport a person having food poisoning due to food contaminated with toxins or chemicals (Symptoms develop early) to the nearest healthcare facility.

- When the person is considered having food poisoning due to food contaminated with organisms needs immediate medical attention when transporting the person to a healthcare facility, provide drinks so that he can take in fluids on the way.
A fever is a temporary increase in the body temperature. Fever can be a sign of serious illness.

The normal body temperature is around 37 degrees Celsius (98.6 degrees Fahrenheit). Fever is generally agreed to be present if the temperature is above 37.7 degrees Celsius (100 degrees Fahrenheit).

**How to measure the body temperature?**

The body’s temperature can be measured by a thermometer you place in the armpit and mouth.

**Types of thermometers**

**Mercury temperature thermometers**

In a mercury thermometer, a glass tube is filled with mercury and a standard temperature scale is marked on the tube. A mercury thermometer can be easily identified by the presence of a silver bulb. Do not use mercury thermometers to measure the body temperature via the mouth.

Shake down the fluid in the glass thermometer before starting a new temperature measurement. Do this by holding the thermometer firmly and flicking the wrist until the fluid reads at or below the lowest number.

With changes in temperature, the fluid expands and contracts in a consistent fashion and the temperature can be read from the scale.

**Electronic body temperature thermometers**

Electronic thermometers exist in different formats and types. These mostly work on battery power, some use sunlight as power source. They have a display where you can read the measurement (in Celsius or Fahrenheit corresponding to the device settings). Most electronic
thermometers will beep when the measurement is complete and the body temperature can be read of the display.

**Measuring the body temperature**

**MEASURING THE BODY TEMPERATURE IN THE ARMPIT**

Clean the thermometer using water and soap or rubbing alcohol.

Place the thermometer in the armpit.

Wait for five minutes or until the electronic thermometer beeps.

Read the temperature.

Clean the thermometer using water and soap or rubbing alcohol.

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**MEASURING THE BODY TEMPERATURE IN THE MOUTH**

1. Clean the thermometer using water and soap or rubbing alcohol.

2. Place the thermometer in the mouth, under the tongue.

3. Ask the person to close the mouth and fix the thermometer via the lips, but not to bite on the thermometer. The person can breathe through the nose.

4. Wait for three minutes or until the electronic thermometer beeps.

5. Read the temperature.

6. Clean the thermometer using water and soap or rubbing alcohol.
7. Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**Read the result**

Read the temperature of the glass fluid or electronic thermometer immediately after taking the temperature.

![Temperature Reading]

The temperature is read to the closest line of the fluid in glass fluid thermometers, or from the electronic display in electronic thermometers.

A person has fever if his temperature is higher than 37.7 °Celsius (higher than 100 °Fahrenheit) in the mouth.

If you have no thermometer you can feel with the back of the hand on the abdomen

If the skin feels hot, the person has probably fever.

**What do I see and enquire when a person has fever?**

Following signs and symptoms may be observed:

- The person has a raised temperature.
- The person complains of feeling cold, but his skin feels hot.
- He may shiver and have chattering teeth.
- Later the person may show a hot, flushed skin and is sweating.
- The person may complain of headache, malaise (feeling sick) and muscle pain.
Children under five years of age may show convulsions (fits) and shake fast and uncontrollably when their body temperature rises quickly. Seizures can occur even if the child has a mild fever. Alternatively, they can occur when a child’s temperature drops fast from a high level.

During simple febrile seizures:
- the child’s body will become stiff and their arms and legs will begin to twitch,
- they’ll lose consciousness and they may wet or soil themselves,
- they may also vomit and foam at the mouth and their eyes may roll back,
- the seizure usually lasts for less than five minutes,
- Following the seizure, the child may be sleepy for up to an hour afterwards.

Look also for signs of dehydration, especially when the sick person has diarrhoea or vomiting, the sickness lasts over a longer period, or it is a sick child or elderly person.

**What do I do?**

**Hygiene**

1. Wash your hands before and after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**Support the sick person**

2. Find out how high the temperature of the person is (see “How to measure the body temperature?”).

3. Ask the person to rest.

4. Keep the person in a cool environment.
5. Give the person lots of water to drink to prevent dehydration. Check if the urine darkens or there is less urine.

Breast-fed babies should be breast-fed more frequently than usual.

Bottle-fed babies should be bottle-fed normally and should be given extra rehydration drinks as a supplement.

6. Contact the local healthcare worker as soon as possible so the cause of the fever can be investigated.

7. Evaluate how the person is dressed.

Too much clothing can increase the fever; too little can cause shivering which will deplete the energy of the sick person.

8. Use water at room temperature to sponge the sick person unless he does not like it and starts shivering. Do not use cold water.

If the person with fever is suffering, he may benefit from paracetamol. Give the person the appropriate dose of anti-fever medication as per advice of the doctor or pharmacist. These medications might bring temporary relief, but do not treat the cause of the illness.

9. If the sick person has convulsions (aka fits) (the person suddenly shakes fast and uncontrollably): treat for fits.

10. Keep checking on the sick person. There may be need to get up in night to check the temperature.

11. If medication has been prescribed to treat the person, advice the person to finish the whole course of medicine. If he does not finish the whole course, the disease might come back.

Advice the person to make sure the correct dose and amount of medicine is taken at the prescribed time intervals. Advice the parents when giving medication to a child to make sure the child is not crying. When a child is crying, the medication will not be swallowed.
If the sick person vomits less than 30 minutes after taking the medicine, the medicine can be given again.

12. Advice not to buy, use or give medication that has:
   - passed the expiry date, or
   - has been exposed to direct sunlight, or
   - has been wet.

13. Bring the person to a nearby healthcare facility if the fever remains or the person’s condition worsens.

**When to refer to a healthcare facility?**

Fever can be a sign of a serious illness. Any person with fever needs medical attention to determine the cause. It is always advised to undergo a blood test for malaria in malaria prone regions.

Medical attention is especially important for babies, children, pregnant women and the elderly.

Arrange transport for the person to a nearby healthcare facility if:

- The person cannot take his medication.
- The person has convulsions (fits).
- The person is very sleepy, difficult to wake up or is confused.
- The person complains of headache.
- The person keeps vomiting.
- The person cannot drink.
- The person urinates less and the colour of the urine darkens.
- The person has sunken eyes.
- The sick child continues to cry without tears.
- The person’s mouth is dry.
- The person cannot sit up or stand up.
- If sick baby is less than three months old, or the baby is too weak.
- The person has fast breathing:
  - Children up to 12 months: more than 50 breaths/minute.
  - Children more than 12 months: more than 40 breaths/minute.
- The person has difficulty in breathing, for example chest heaving, nostrils flaring or chest in drawing.

When transporting the person to a healthcare facility or hospital, provide him with something to drink.
Chapter 9 :: LOW BLOOD SUGAR

Hypoglycaemia

Low Blood Sugar is also known as Hypoglycaemia, "hypo", is an abnormally low level of sugar (glucose) in the blood. When the glucose level is too low, the body doesn't have enough energy to carry out its activities.

Hypoglycaemia is most commonly associated with diabetes and mainly occurs if someone with diabetes taking too much insulin (overdoses insulin) or other medicines, missing a meal or exercises too hard.

People who do not have diabetes can also experience hypoglycaemia, although this is much rarer. It can be triggered by malnutrition, binge drinking or certain other conditions.

Symptoms of hypoglycaemia

Most people will have some warning that their blood glucose levels are too low, which gives them time to correct them. Typical early warning signs are feeling hungry, trembling or shakiness, dizziness, and sweating.

In more severe cases, there can also be confusion and difficulty in concentration. In severe cases, the person experiencing hypoglycaemia may lose consciousness.

It is also possible for hypoglycaemia to occur during sleep, which can cause excess sweating, disturbed sleep, and feeling tired and confused upon waking.

What do I do?

Safety first

Make sure there is no danger to you, the person or bystanders.

Provide first aid

Make the person lie down in a comfortable position.

Ask if the person is taking insulin and/or other medicines for diabetes and if he might have taken too much insulin and/or other medicines, missed a meal or have done a heavy physical exercise.

If the person is conscious and is able to follow commands and can swallow, give the sick person some food or drink that contains sugar, such as sweets, jam, or dextrose tablets or fruit juice.
Often the diabetic patient has fast acting sugars such as biscuits available with them. Allow him to take it.

After having something sugary, suggest the person to have a longer-acting "starchy" carbohydrate food, such as a few biscuits or a sandwich.

Never try to put food or drink into the mouth of someone who is drowsy or unconscious, as he could choke

Keep observing the person in case he collapses.

If you cannot differentiate between hyperglycaemia and hypoglycaemia (which is difficult even for a trained person), treat the person as having hypoglycaemia. Low blood sugar can kill a person quickly.

**What do I do when the person becomes unconscious, but is still breathing?**

i. Put the person in the recovery position.

j. Continue to observe the person’s condition and breathing.

**What do I do when the person stops breathing?**

Perform CPR.

**When to refer to a healthcare facility?**

[`Always arrange urgent transport to the nearest healthcare facility as a diabetic coma is a serious and potentially life-threatening condition.`]

If the diabetic person experienced hypoglycaemia but improved with oral sugar, he should contact the healthcare facility to review his condition and eventually to correct his insulin doses and other medications.
Chapter 10: Headache

Headache usually are brief and can be caused by many things, including too little sleep, eye strain, stress, sinus infections, or a bump to the head.

Headache due to change in eye sight is very common among children’s.

Some headaches last longer and come with other symptoms. Very rarely, headaches can be a sign of something serious like discussed in stroke section of manual.

What do I enquire?

The two most common types of headaches in kids and teens are tension headaches and migraine headaches.

Of a tension headache:-

- a feeling of squeezing or pressure around the front, sides, and back of the head
- dull, steady pain
- pain neither increases nor decreases
- no vomiting tendency
- muscles of the scalp, face, and shoulders may be sore to the touch

Of a migraine headache:-

- pounding, throbbing pain on one or both sides of the head
- pain is worsened by rapid motion
- dizziness, feeling tired
- nausea, vomiting, abdominal cramp
- seeing spots or halos
- sensitivity to light, noise, and/or smells

What do I do? First Aider Action

Most headaches require little medical intervention. To help ease pain, have your child:

- Let person lie down in a dark, quiet room
- Give enough fluid to hydrate a person
- Take paracetamol if needed connect to a doctor for proper dose of medicine.
- put a cool, moist cloth across the forehead or eyes

Seek Medical Care

If the Headaches:

- occur once a month or more
- don't go away easily
• are more painful than usual
• prevent your child from participating in everyday activities
• follow a head injury or loss of consciousness
• come with any of these symptoms:
  o decreased alertness or confusion
  o fever or persistent vomiting
  o seizures
  o changes in vision
  o weakness
  o neck pain or stiffness

Too little sleeping habit, **not drinking enough fluids**, and using the computer or watching TV for a long time are common reason to trigger headache.

It's very important to do vision test in kids who complain of constant headache.
Chapter 11: Anxiety and Panic Attack

A panic attack (sometimes called anxiety attack) is an episode of intense fear and anxiety often accompanied by different symptoms.

In kids it is common before exam, sports event which they are afraid of participating.

Most episodes last between 5 – 30 minutes although they can occur for longer periods.

What do I see and enquire?

During a panic attack, the body goes into “fear, fight or flight” (3F) mode which can cause distressing symptoms including:

- Sweating
- Trembling
- Palpitations
- Shortness of breath
- Chest pain
- Dizziness
- Hyperventilation
- Sickness

The symptoms often gradually resolve as the panic subsides.

Panic attacks may have certain triggers. For example, patients who have a phobia (a strong fear of something) e.g. Examination, Stage presentation, sports event may experience panic attacks when exposed to their phobia.

What do I do? First Aider Action

1. Make sure scene is safe to enter.
2. Remove any triggers of the panic attack (or remove the patient from the trigger!)
3. Provide lots of reassurance and remain calm yourself
4. Focus on controlling the patient’s breathing – encourage them to breathe in slowly through their nose, hold their breath, then breathe out through their mouth. Tell them to copy your slow breathing pattern.
5. If unable to calm the person, take him or her to see medical help right away.

Recurrent panic attacks may be the sign of panic disorder which requires specialist assessment and treatment by a doctor.

Important: a panic attack can sometimes look very similar to an asthma attack, and the two can occur together. For this reason a paper bag is not recommended for re-breathing, in addition if you have any concerns about the patient’s breathing then seek emergency medical help.
Chapter 12 – Psycho social support

Empathy

Empathy is the ability to put ourselves in someone else’s shoes. It means that we understand and are sensitive to the feelings of someone else and can also, even if temporarily, share the feelings of that person.

Empathy is embedded in the aim of helping people or saving their lives of people, in need. In itself, empathy can be a form of assistance to alleviate the suffering of others, as it has an appeasing and sometimes healing effect. Also, before helping or assisting people, empathy is required to understand and connect to it, in particular emotional, mental or moral suffering.

Key ingredients

- **Active listening** (When the person is talking), so that we truly understand what they are saying and the meaning it has for them
- **Pay attention to the whole person**, including their body language, feelings and needs
- **Increase non-verbal communication**, including physical signs like body language and eye contact, when culturally appropriate
- **Establish a connection from heart to heart**, to go beyond understanding with our mind
- **Critical thinking**. We have empathy when we understand the plight of the other person and maintain a balanced and healthy emotional distance at the same time. Therefore, critical thinking needs to accompany empathy.
- **Develop or strengthen our person resilience**

Active listening

Active listening is being present for the speaker. It is listening to **what** is being said, as well as to **how** and **why** something is being said, to ensure we have true understanding of its real **meaning** or of what this means to the speaker.

Active listening is also about **listening ‘neutrally’**, without replying on our own preconceived ideas, biases or ‘filters’ created by our culture, education or upbringing.

Active listening is requiring to humanity and impartiality. Our purpose to help or assist the person in better humanitarian way. This requires connecting with people, with what is alive in them, to understand their physical, mental, moral and other suffering; for this, active listing is a crucial tool. Through active listening, potential suffering also can be identified upfront and prevented.

Key ingredients

The objective of active listening is to make sure that what we understand is what the speaker is trying to communicate. Some key comments of active listening are to:

- **refrain from trying to ‘control’ the story**, not interjecting with our own story or thoughts
- **ask for details or questions or clarification** to gain a better and ‘fuller’ picture.
- **paraphrase** i.e., to repeat what we have heard while using our own words, different from the speaker’s and focus in particular on their meaning. This is key to making sure that we really understand what the speaker is trying to communicate and, in particular, the meaning it has for them.
C. First aid for Injury Related Conditions

Chapter 1: Bleeding

Bleeding

Blood circulates in blood vessels (arteries, veins, and capillaries). Bleeding is defined as blood coming out from the blood vessels either into the body (internal bleeding - you can’t see it) or outside of the body (external bleeding - you can see it).

Types of bleeding

A bleeding can be classified by the type of the blood vessel that has been damaged:

<table>
<thead>
<tr>
<th>Type of Bleeding</th>
<th>Blood Loss</th>
<th>Picture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial bleeding.</td>
<td>Rapid Spurt out Bright Red in Colour</td>
<td><img src="image1.png" alt="Picture" /></td>
</tr>
<tr>
<td>Venous</td>
<td>Lesser Than Arterial but still can be major if Major Veins are cut dark red in Colour</td>
<td><img src="image2.png" alt="Picture" /></td>
</tr>
<tr>
<td>Capillary</td>
<td>Bleeding from the capillaries occurs with any wound. A blow may rupture capillaries under the skin, causing bleeding into the tissues (bruising).</td>
<td><img src="image3.png" alt="Picture" /></td>
</tr>
</tbody>
</table>

First aid for bleeding (in general)

What do I see and enquire?

A person who has an injury which is bleeding severely is in a life-threatening situation and needs immediate help. Therefore, stopping the bleeding is a core first aid activity. In addition, bleeding in the face or neck may impede the air flow to the lungs.

There might be an open wound that is bleeding.

Suspect bleeding inside the body if the injured person:

- is losing blood from body cavities (nose, ear(s), mouth, sex organs, anus);
- is breathing rapidly;
- has a cold and clammy skin that is pale or turns blue;
- has a rapid heartbeat (pulse);
- is behaving in an irritated or unusual way;
- has pain or complains about tenderness; sometimes there is also swelling in the abdomen or chest at the place of the suspected internal bleeding;
- Becomes sleepy or falls unconscious.

![Image of a person lying down]

⚠️ Do not raise an injured person’s legs if you suspect an injury to the legs or moving the legs is painful. The effect of raising the leg is only limited and moving the legs might cause harm.

**What do I do?**

**Safety first and call for help**

1. Make sure there is no danger to you and the person.
2. The person urgently needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility. Tell him to come back to you to confirm if help has been secured.

**Stop the bleeding**

1. Ask the injured to sit or lie down or put him in comfortable position.
2. Comfort the person and explain what is happening to him. Tell the person to relax and rest. He should not try to exert.
3. Try to stop or slow down the bleeding; press with both hands on the wound with a clean cloth or bandage.

**Remember mnemonic in case of bleeding**

Mnemonic ICE or RED

<table>
<thead>
<tr>
<th>I:</th>
<th>Immobilise the bleeding area</th>
</tr>
</thead>
<tbody>
<tr>
<td>C:</td>
<td>Compress (apply direct pressure)</td>
</tr>
<tr>
<td>E:</td>
<td>Elevate the area above heart level.</td>
</tr>
<tr>
<td>R:</td>
<td>Rest</td>
</tr>
<tr>
<td>E:</td>
<td>Elevation (Above heart Level)</td>
</tr>
<tr>
<td>D:</td>
<td>Direct compress (apply direct pressure)</td>
</tr>
</tbody>
</table>

Alternatively, if possible, ask the injured to press on the bleeding wound himself to stop the bleeding.

4. If you have a piece of clean (cotton) cloth, then cover the wound with it.

If you have no bandages, improvise with other materials.
5. You can also wrap a bandage around the wound to slow down the bleeding, but continue to apply pressure until the bleeding stops.

Make sure the bandage is firm enough so it stops the bleeding but doesn’t cut off all the blood flow.

If the part of the body below the bandage changes colour or is swelling or the injured person says he is losing any feeling there, loosen the bandage a little but do not remove it. If the blood flow to a limb is stopped an injured person can lose his limb.

6. Do not apply a tourniquet or fix a bandage above the wound, except in special situations (as specified below)!

Only apply a tourniquet:

- if the bleeding of an external limb cannot be stopped by putting direct pressure on the wound, or
- if there are many casualties you have to give help to, and
- The first aider has been well trained on how to apply a tourniquet.

If a tourniquet is applied on a bleeding limb:

a. apply it above the wound,

b. note down the time when the tourniquet is applied,

c. maximally have a tourniquet applied for 2 hours,

d. Transfer the casualty as quickly as possible to a healthcare facility for further treatment.

7. If the bandage becomes soaked in blood, do not remove it, but add another bandage on top of it and continue to apply pressure.
8. Take off jewels or anything else in the area of the wound that may cut off blood flow because of swelling. Keep the jewels and belongings with the owner or in a safe place.

9. Keep the injured person warm by taking off wet clothing, covering him with a blanket or other covering, taking care not to overheat him.

10. Keep checking for the bleeding and also check that the person is conscious and breathing properly.

11. Stay with the person until medical help is available.

12. Do not give the injured person anything to eat or drink.

13. Arrange transport to the nearest healthcare facility.

**WHAT DO I DO IF THE VICTIM LOSES CONSCIOUSNESS, BUT IS STILL BREATHING?**

17. If the person is breathing, put him in the recovery position and cover him with a blanket or coat to keep him warm.

18. Continue to put pressure on the wound to stop the bleeding.

19. Do not leave the victim alone and continue to observe the breathing.

**WHAT DO I DO IF THE VICTIM STOPS BREATHING?**

Start CPR.

**What do I do if an object is stuck in the wound?**

1. Do not remove the object.

2. Check if the object caused an additional exit wound if it passed through; try to stop the protruding object from moving (do not remove the object) with bulky material and bandages.
3. Build up padding around the object until you can bandage over it without pressing down.

4. Bandage the material above and below the object with a piece of clean (cotton) cloth or improvise with other materials.

   Make sure the bandage is firm enough so it stops the bleeding but doesn’t cut off all the blood flow.

   If the part of the body below the bandage changes colour or is swelling or the injured person says he is losing any feeling there, loosen the bandage a little but do not remove it. If the blood flow to a limb is stopped an injured person can lose his limb.

   Do not apply a tourniquet or fix a bandage above the wound except in very special situation.

5. If the bandage becomes soaked in blood, do not remove it, but add another bandage on top of it and continue to apply pressure.

6. Take off jewels or anything else in the area of the wound that may cut off blood flow because of swelling. Keep the jewels and belongings with the owner or in a safe place.

   • If bleeding from the nose, ask the victim to lean forward, pinch the nose for 10 minutes, and breathe from the mouth.

   • Do NOT swallow blood.
   • Do NOT blow; cough, sniff, or prick the nose if there is bleeding.
   • Do NOT put any object in the ear to stop bleeding.
   • Do NOT take aspirin if there is any bleeding.
   • Do NOT remove a cloth that you have applied to stop bleeding. Add another cloth on the previous one.
   • Do NOT remove any penetrating object.

   If bleeding from the inside of the ear: ask the victim to sit and lean on the side so that the blood is drained out and lightly cover the ear with a cloth without compression.
What do I do when I suspect an internal bleeding?

7. Ask the injured person to sit or lie down or make him comfortable.

8. Check the airway, breathing and circulation.

9. If there is also external bleeding: try to stop or slow down the external bleeding; press with both hands on the wound with a clean cloth or bandage.

10. Keep the injured person warm by taking off wet clothing, covering him with a blanket or other covering, taking care not to overheat him.

11. Keep checking that the person is conscious and breathing properly.

12. If the person stops breathing, start CPR.

13. Do not apply hot water bottles or ice bags to the chest or the abdomen.

14. The person needs to be transported urgently to the nearest healthcare facility.

When to refer to a healthcare facility?

Always urgently transport the casualty to the nearest healthcare facility when you suspect he may be suffering an internal bleeding or sign of shock (3C Cold, Calm and Confused)

After giving first aid, a casualty should always be referred to the healthcare facility for further follow-up or treatment.

- It is more than 10 years since the injured person last had a tetanus toxid injection or if there is any doubt about when the injured person last had a tetanus toxid injection. Even small wounds can cause tetanus and it is a very safe injection
A wound is an injury in which the skin or another surrounding surface is torn, pierced, cut or otherwise broken. Wounds can be external or internal in the body. Each type of wound carries specific risks associated with the surrounding tissue damage and infection.

Different types of wounds are:

<table>
<thead>
<tr>
<th>Type of wound</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasions</td>
<td>These wounds appear often when experiencing a sliding fall (e.g. of a bike). The wounds often contain embedded foreign particles which may result in infections. Abrasions do not bleed much, but are usually very painful.</td>
</tr>
<tr>
<td>Incisions</td>
<td><em>Incised wounds</em> are caused by sharp instruments such as a knife, razor, etc. The blood vessels show a straight cut and bleeding may be profuse.</td>
</tr>
<tr>
<td>Contusions (bruises)</td>
<td><em>Contused wounds</em> are caused by blows, by blunt instruments or by punching. The capillaries are ruptured by the punch and blood leaks into the tissues.</td>
</tr>
<tr>
<td>Lacerations</td>
<td><em>Lacerated wounds</em> are caused by crushing, ripping forces by machinery, or clawing of animals resulting in tears or lacerations. The edges are mostly irregular in shape.</td>
</tr>
<tr>
<td>Puncture wounds</td>
<td><em>Puncture wounds</em> are caused by stabs or sharp instruments like knives, daggers or nails. These wounds typically have a smaller opening, but may reach deep into the tissue. These may not be very painful.</td>
</tr>
<tr>
<td>Amputations</td>
<td><em>Amputation</em> is the removal of a limb by trauma. Re-attachment of amputated limbs, fingers or toes might be possible if the injured and the amputated part(s) arrive at the hospital as soon as possible.</td>
</tr>
</tbody>
</table>
Complications of wounds

Wounds can cause two great dangers:

- Bleeding, and
- Infection

Bleeding

Bleeding is the immediate complication of a wound and must be treated immediately.

Infection

Germs are tiny, not visible to the human eye, organisms that can cause diseases. Germs are bacteria, viruses, fungi and protozoa.

An infection is caused by germs getting into the body through the broken skin. The germs multiply in the wound and make it ‘infected’, also called as ‘septic’.

The prevention of infection is very important. The first step consists of personal hygiene and the washing of your hands prior and after taking care of a person.

Small cuts and abrasions

Even if the injured person has a small cut or abrasions, you will still need to take care of the wound to stop the bleeding and to prevent infection.

What do I see and enquire?

You might observe the following signs on a person with a cut or abrasions:

- the skin or the tissue is damaged,
- open skin or tissue might be bleeding,
- the bleeding might be minor or profuse,
- the skin might be discoloured, or
- The casualty might feel pain.

What do I do?

Hygiene

Wash your hands before giving care. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

Put on gloves if available. You can also use a clean plastic bag. Try not to come in contact with the person’s blood.
Stop the bleeding and bandage the wound

2. Try to stop or slow down the bleeding: press on the wound with a clean cloth or bandage. If possible, ask the injured person to press on the cut or graze himself to stop the bleeding.

3. Rinse out the wound with clean water. You can also use boiled and cooled water. Pour water on the wound until you cannot see any foreign material left in the wound. If necessary, wash out the wound under running water. Foreign material means dirt or anything else that comes from outside the injured person’s body.

   In the event the wound is bleeding profusely, do not waste time cleaning it. Your priority is to stop the bleeding by applying pressure on the wound.

4. If you have a piece of clean (cotton) cloth, then cover the wound with it. Use adhesive strips to close a clean cut. If no strips are available, use a bandage. Bandage the dressing to the wound.

   Do not apply the bandage too firmly. If the part of the body below the bandage changes colour is swelling or is feeling numb, loosen the bandage a little bit.
5. Tell the injured person or the person caring for him to keep the wound dry. Every 2 or 3 days, the wound should be cleaned and the dressing changed.

![Image of hands cleaning a wound]

6. If a dressing needs to be changed, do not tear the old one off as this can damage the healing wound. Instead, put enough water (preferably saline water if available) on the old dressing so that it comes off easily.

7. If the wound is infected, then always refer him to a healthcare facility for further care.

Even small wounds need attention to prevent infection. Even if the injured person has received appropriate medical care, there is a need to watch out for infection in the wound.

The following signs might indicate an infection:

- pain that is getting worse;
- swelling, hot or red skin around the wound;
- the wound shows discharge, or
- Person having fever or feeling unwell.
Chapter 3 – Fractures, sprain and dislocation

A fracture is a break/bend or crack in a bone. Generally, a considerable force is needed to break a bone, unless it is diseased or old. The bones that are still growing are supple and may split, bend, or crack.

- A strain is overstretching of a muscle or a tendon
- A dislocation is separation of the head of a bone at a joint (this can have an associated fracture)
- A sprain is tearing of a ligament at the joint
- Injuries to bones and soft tissue can happen from kicks, punches, road accidents, falling from a height, sports injuries, and playground injuries

Types of fractures
What do I see and enquire?

Following signs and symptoms may be observed when a person suffered a fracture:

- The injured complains of pain at the spot of fracture or around it.
- The injured complains of tenderness i.e. pain on touching over the injured spot.
- There might be swelling of the area of the fracture.
- There might be a bleeding at the location of the fracture.

Never press hard on a suspected fracture spot!

<table>
<thead>
<tr>
<th>Type of Fracture</th>
<th>Description</th>
<th>Pictures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed Fracture</td>
<td>The skin above the fracture is intact, although the bone ends may have damaged nearby tissues and blood vessels.</td>
<td>![Closed Fracture Picture]</td>
</tr>
<tr>
<td>Open Fracture</td>
<td>The skin above the fracture is not intact. There is bleeding. The bone is exposed to the outside air at the surface; dirt, dust and germs can enter the wound. There is a high risk of infection.</td>
<td>![Open Fracture Picture]</td>
</tr>
</tbody>
</table>
The bone might be sticking out.

There might be a discoloration in the area of the fracture.

The injured may have lost the capability of normal movements of the affected part.

There might be a deformity of the affected limb. The limb may have lost its normal shape. Sometimes the muscles may pull up the lower free end, causing an apparent shortening of the limb.

An irregular outline of the bone can be felt (e.g. on lower limb fractures).

The injured may feel an unnatural movement at the spot of fracture.

If you are not sure whether a bone is broken, it is safer to assume that it has broken.

If the broken leg looks deformed or dislocated, do not try to reset it. This might make the injury worse and will cause pain.

What do I do?

Safety first and call for help

Make sure there is no danger to you and the person.

The person needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange transport to the nearest healthcare facility. Tell him to come back to you to confirm if help has been secured.

Provide first aid

1. Fractures often occur in major accidents. Therefore, it is necessary to treat other potential injuries also. The first aider must decide which injury is more urgent.

   Providing CPR when the victim does not breathe, or treating a severe bleeding is more urgent and should be handled on priority.

2. There may be more than one fracture in the same person or even in the same limb.

3. Try not to move the broken or dislocated limb unnecessarily.

   Try not to move the casualty until the injured part has been secured.

   If you need to move the victim, be careful when moving or turning him. It is better to ask assistance by bystanders.

4. Reassure the casualty.

5. Advice the person to keep calm.
6. If the casualty is able to support the injured part, ask him to do so; else, support the injured part with your hands or ask a bystander to do so.

You can immobilize the injured part with a bandage or a splint (if the first aider is experienced in these techniques). If you applied a splint or bandage, check the circulation below the bandage or splinting (e.g. at finger or toe level).

7. Arrange appropriate transport to the nearest healthcare facility.

8. Continuously observe the casualty.

9. Do not give the casualty anything to eat or drink.

**WHAT DO I DO WHEN THERE IS ALSO A SEVERE BLEEDING?**

Press on the bleeding to stop it and put a pressure bandage on the wound.

**WHAT DO I DO WHEN THE PERSON BECOMES UNCONSCIOUS, BUT IS STILL BREATHING?**

1. Put the person in the recovery position.

2. Continue to observe the victim and check his breathing.

**WHAT DO I DO WHEN THE PERSON STOPS BREATHING?**

Perform CPR.

**When to refer to a healthcare facility?**

Always transport or refer a person suffering a (potential) fracture to a nearby healthcare facility.

---

**SPLINTS**

- Used to immobilise a limb to prevent movement and further injury and reduce pain
- can be prepared with locally available material like a rigid piece of wood, plastic/metal/cardboard, a walking stick, an umbrella, the other leg etc
- Splints should be long enough to immobilize the joints above and below the painful area.
- Splints should be padded with cotton or cloths to make them fit softly and snugly on the injured limb. — nice to do but if you don't have padding you can still use a splint
- Splints are best to be applied over the clothing.

A treatment by bonesetters is not recommended.
Chapter 4:- Amputation

Amputation is the removal of a limb by trauma. Re-attachment of amputated limbs, fingers or toes might be possible if the injured and the amputated part(s) arrive at the hospital as soon as possible.

In case of an amputation:

1. Control the bleeding by providing direct pressure to the wound. Put a clean cotton bandage on the wound.

2. Place the amputated part in a clean plastic bag.

3. If possible, place the packed amputated part in a container of ice. **Do not put ice directly on the amputated part** – the amputated part should always be packed in a clean plastic bag.

   Do not put liquids or antiseptic products on the amputated part.

4. Mark the package clearly with the casualty’s name and the time the amputation occurred.

5. Arrange urgent transport of the casualty and the amputated part to the nearest hospital.

6. Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

   **Always urgently transport the casualty suffering an amputation injury to the nearest healthcare facility,**
   **If the amputated part has been recovered, do not forget to send it together with the casualty.**
Chapter 5: Eye Injury

Foreign Body in the Eye

Wings of insects, dust, coal, metal particles from lathes and loose eye-lashes are common objects which get lodged under the eyelids. They cause pain and later redness if they are not removed at once.

What do I see and enquire?

Following signs or symptoms may be observed:

- The person complains of pain or discomfort in the eye.
- Redness and watery eyes.
- The person complains of a blurred vision.

What do I do?

1. Ask the casualty not to rub into the eye.
2. Ask the casualty to sit. Pull the lower lid down to inspect.
3. Rinse the eye immediately with plenty of water for 10-15 minutes, preferably from the nose outwards. Use clean water or water that has been boiled and cooled.
   
   Be careful:
   - Water at room temperature is more comfortable than cold water.
   - Very warm water might burn the eye.
   
   Make sure no liquid or rinsing water runs into the other eye.

4. If washing of eyes did not work, you may try to remove foreign object with a narrow moist swab or a twisted corner of a clean handkerchief.

   If foreign body is not visible it may be under the upper eye lid. Ask the casualty to grasp his upper lashes and pull the upper eyelid over the lower lid. The lower lashes may brush the particle clear.

   If this did not work, you may ask the casualty to blink under clean water. You can also use an eye cup to blink the eye in it.
5. If something is sticking to or embedded in the eye, the eyeball or pupil, do not try to remove it.
6. Cover the eye and transport the casualty to the nearest healthcare facility for further care.
7. Do not put medication into the eye.
8. Wash your hands after taking care of the person. Use soap and water to wash your hands. Alcohol-based sanitizers can also be used, if available.

**What do I do when there are burns to the eye?**
Provide first aid as described in the section on burns to the eye.

**What do I do when there are harmful liquids spilled into the eye?**
Provide first aid as described in the section on chemical burns to the eye.

**When to refer to a healthcare facility?**

Eye injuries have to be managed always with great care. Always refer these victims to the nearest healthcare facility.
Chapter 6: Road Traffic Accident and Injuries

A road traffic injury is defined as suffering to a pedestrian, the driver, or the passenger of any moving bicycle or vehicle.

Causes

- Road conditions
- Overly fast driving speeds
- Alcohol, drug, or medication consumption prior to driving
  Aggressive driving such as fast driving/swerving
- Driver carelessness
  Distractions during driving/riding/walking (ex. Mobile phone)
- Seat belt or motorbike helmet not worn by the rider/driver and passengers
  Signals not obeyed or hanging off of a vehicle

Precaution is better than cure:

- Do not allow anybody who has taken alcohol or drugs to drive.
- Use helmets and seatbelts at all times.
- Do not speak on the mobile phone while driving, riding a motorbike, or walking on or crossing the road.
- Look both ways before crossing the road.
- Do not leave children unattended on the road.
- Obey traffic rules and observe speed limits
- Avoid situations which cause anger or irritation prior to driving

Seek medical help if:

- There is a collision or accident on the road
- The individuals are lying on the road and appearing to be injured, unconscious, or bleeding.

Action before the ambulance arrives: FIRST AIDER ACTION

- Call for help
- Ensure someone watching traffic all the time
- Make sure you guard yourself from incoming traffic by placing at least 1 vehicle between rescue scene and injured person.
- Check the victim’s responsiveness
- Maintain patient Airway by Jaw thrust technique avoid head tilt chin lift.
- Do CPR if the victim is not breathing.
- Attempt to stop any external bleeding by using a clean handkerchief and applying direct pressure to the site of bleeding.
• Wait for the ambulance to arrive instead of attempting to transport the victim to the hospital in any other vehicle. You may do further damage in the process of transporting him/her.

• **If not ambulance is available, shift the victim in an appropriate position.**

Do NOT

• Do NOT enter the scene unless it is safe and proper traffic management in place.
• Do NOT remove any penetrating objects (ex. Broken glass/metal)
• Do NOT lift the victim because neck injuries are likely and may paralyze the victim permanently.
Chapter 7: Head and skull injury

Head injuries

The scalp has many small blood vessels near the skin surface. Any cut can result in profuse bleeding and may make the wound appear worse than it is.

In case of a severe head injury, a watery fluid (cerebrospinal fluid) and blood may flow out of the nose, ear(s) or mouth.

In case of suspecting a severe head injury:

1. Ask the injured not to blow his nose.
2. Do not pack the ear or nose. You may eventually place a light dressing on the ear or nose.
3. If the person is breathing, put him in recovery position. Be aware of the risk of neck (spinal) injury.
4. Urgent transport to the nearest hospital is required.
5. Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

Always urgently transport the casualty with a suspected head injury to the nearest healthcare facility.

Skull fractures

If the casualty has a head wound or bruise, be alert for a possible skull fracture also. A skull fracture is a serious condition because of the underlying risk of brain damage and bleeding.

You might observe following signs and symptoms:

- There is a soft area or a depression on the scalp.
- Asymmetry of the head or skull.
- There is bruising or swelling behind the ear(s).
- Clear watery fluid (CSF) or blood is leaking from the casualty’s ear or nose.
- The casualty has a deteriorating level of response which may progress to unconsciousness.

What do I do?

If the injured person responds, do not try to change the position of the person when there is a head, neck, back and leg or arm injury.
1. Tell the person to stay calm and not to move.

2. Assure the person that you will stay with him and help is being arranged.

3. To keep the head still, place your hands or tightly folded clothing on each side of the injured person’s head. Keep the head and neck of the person still only if the person allows you to do so.

4. If the injured does not allow you to hold his head, do not enforce.

5. If the spinal cord injury is suspected, try to ensure that:
   a. The injured person continues to lie still until transported to a hospital.
   b. The injured person is not made to sit or stand.
   c. At least 3 people assist in moving the person ‘like a log of wood’ called log roll to transport him to the nearest healthcare facility or hospital.

6. Keep the injured person warm by taking off wet clothing, covering him with a blanket or other covering, taking care not to overheat him.

7. If not done yet, arrange transport to a healthcare facility.

8. Do not leave the person alone and keep on checking his breathing.

9. Do not give the casualty anything to drink or eat.
What do I do when the person loses consciousness, but is still breathing?

1. Put the person in the recovery position.
2. Be careful when moving and turning the victim. It is better to ask assistance by bystanders.
3. Do not leave the person alone and continue to observe the breathing.

What do I do when the person stops breathing?

Perform CPR.

Do not interrupt the resuscitation until:

When to refer to a healthcare facility?

- Always urgently transport an unconscious casualty to the nearest healthcare facility. Injured people suspected of having head, neck or spinal injuries should always be examined urgently in the nearest healthcare facility.

- Anyone who has become unconscious or who is feeling sick, has pain after fainting (e.g. in the head or heart region, or from trauma resulting from the fall), is on medication or is being treated for a medical condition, should always visit the healthcare facility for medical check.

Do NOT

- DO NOT bend, twist, or lift the person’s head or body.
- DO NOT attempt to move the person before medical help arrives unless it is absolutely necessary.
- DO NOT remove a helmet if a spinal injury is suspected.
Chapter 8 :- First Aid for Broken tooth

Injury to Dentures is common in kids while they are playing.

What do I Enquire?

Patient general condition.

Look sign of serious injury in head neck and spine.

What do I do? First Aider Action:-

1. Make sure scene is safe
2. Take Universal precaution
3. Reassure person injured.
4. Look for bleeding applies a sterile gauge or cotton don’t remove if soaked with blood apply 1 more.
5. Apply gentle pressure
6. Apply cold pack
7. Contact Dentist urgently.

If an adult tooth is knocked out, try putting it back in place and go straight to a dentist. Don’t try to re-insert a baby tooth – take your child to see a dentist immediately.
Chapter 1: Drowning

Drowning causes asphyxia by water, weeds and mud entering into the lungs. When the lungs’ alveoli are filled with water, they cannot exchange oxygen to and from the blood.

1. If a casualty has been immersed in cold water, there is also the danger of hypothermia. It is important to keep the victim warm.

2. If the casualty was diving there could be trauma to the head, neck or spine.

What do I see and enquire?

- A victim is in the water and is in distress.
- Following signs of drowning may be observed:
  - no breathing;
  - difficulty in breathing and signs of restlessness;
  - the rate of breathing increases;
  - the breaths get shorter;
  - the veins of the neck become swollen;
  - the face, lips, nails, fingers and toes turn blue;
  - Water may gush from the mouth.

This water is from the stomach and should be left to drain of its own accord.

Do not attempt to force the water to come out of the stomach as the victim may inhale it.
What do I do?

Safety first and call for help

1. Make sure there is no danger to you of drowning.

2. The person urgently needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility. Tell him to come back to you to confirm if help has been secured.

Remove the victim out of the water

3. Remove the person rapidly and safely from the water, but do not place yourself into any danger by doing so.

4. Try to throw a rope or something that the drowning person can hold onto (if he is still conscious and able to grasp the helpline).

5. Once the person has been rescued from the water, do not try to remove water from his lungs.

What do I do if the victim is breathing?

1. If the person is breathing, put him in the recovery position and cover him with a blanket or coat to keep him warm.

2. Do not leave the victim alone and continue to observe him.

What do I do if the victim is not breathing or not breathing normally?

1. Remove any cause of suffocation.

2. If the person is not on his back, turn him on his back.

3. Kneel down by the side of the person.

4. Start CPR.

If the breathing starts again:

a. Cover the victim.

b. Arrange urgent transport to a hospital.

c. Do not leave the victim alone and continue to observe him.

d. If the breathing stops again, restart CPR.
When to refer a drowning victim to a healthcare facility?

Always urgently transport people who have been in a drowning situation to a healthcare facility.
CHAPTER 2: BURN

Burns are injuries to the skin and underlying tissue that result from the sun, heat sources, fire, hot items, boiling liquids, chemicals, irradiation, etc. However, cold can also create burn wounds!

First, second and third degree burns

Burns are classified by the degree of skin and underlying tissues that are damaged. You will observe different signs and symptoms according to the severity of the burn wound.

First degree burns

Superficial first degree burns show following signs and symptoms:

- red or darker than usual skin;
- slightly swollen skin;
- painful, but mostly bearable.

These burns usually extend only into the epidermis.

Second degree burns

Intermediate second degree burns show following signs and symptoms:

- blistering,
- swelling,
- very painful.

These burns usually involve the epidermis and the dermis.
Third degree burns

Deep third degree burns show following signs and symptoms

- black, parchment-like or white-looking burn wound;
- mostly dry;
- no pain inside the third degree area, but very painful in the surrounding second and first degree burned parts of the skin.

Type of burns by origin

Burns can be differentiated by their origin:

Dry burns

Dry burns are burns from flames; contacts with hot objects (e.g. hot cigarettes, hot domestic appliances) or friction (e.g. rope burns).

Scalds

Scalds are burns by steam or hot liquids (e.g. tea, coffee, hot fat).

Electrical burns

Electrical burns are burns caused by electrical current. These burns can result from low voltage current (e.g. home appliances) or high voltage current (e.g. transformers) or by lightning strikes.

Chemical burns

Exposure to chemical substances like industrial chemicals, corrosive gases or inhaled chemical fumes can cause chemical burns. Also, the exposure to domestic chemicals and agents as paint stripper, caustic soda, weed killers, bleach, oven cleaners or strong acids or alkali can cause burns.

Radiation burns

Exposure to radioactive sources, e.g. X-rays or radiotherapy-rays, can result in radiation burns.

Frost bites (cold burns)

Cold burns like frost bites originate from exposure to cold wind, cold temperature or contact with cold freezing materials (e.g. cold metal), or can happen from contact with freezing vapours (e.g. liquid oxygen or liquid nitrogen).
Sun burns

Intensive exposure to sunlight, an over-exposure to ultraviolet light (UV) from a sunlamp or the sun result in sun burns.

Long exposure to heat or hot weather can also lead to heat exhaustion and heat stroke.

Danger of burns

Severe or large burn injuries can pose serious problems. However, any burn injury can lead to complications.

The danger from burns usually depends more on the area of the burns rather than the degree. Superficial burns over a large area of the body are more dangerous than the complete charring of a part of the limb. It must be noted that a burn is mostly a mixture itself of different degrees of burns, and that in the same person different degrees of burns may show on different parts of the body.

The most important dangers are:

- **Infection**
  Burn injuries leave the skin open and susceptible to infection. Burn injuries also increase your risk of sepsis, which is a life-threatening infection that rapidly travels through the bloodstream. Sepsis can cause shock and organ failure.

- **Low blood volume**
  Burn injuries damage the skin and the blood vessels, causing fluids to escape the body. This can result in low blood volume, known as hypovolemia. A severe loss of fluid and blood can prevent the heart from pumping enough blood through the body (resulting in shock).

- **Low body temperature**
  The skin helps to control the body's temperature. When a large portion of the skin is injured, the body loses heat. This increases the risk of hypothermia — i.e. when the body loses heat faster than it can produce — resulting in a dangerously low body temperature.

- **Breathing difficulties**
  One of the most common dangers that accompany burn injuries is the inhalation of smoke or hot air. This can burn the airways, making it difficult to breathe. Smoke can permanently damage the lungs and lead to respiratory failure.

- **Pain**
  Burn wounds are very painful.

- **Disability**
  Burn injuries form scar tissue once healed. When the skin is burned, the surrounding skin starts to pull together resulting in a post-burn contracture that prevents movement. Deeper burns can limit movement of the bones or joints when skin, muscles or tendons shorten and tighten, permanently pulling joints out of position.
Dry burns and scalds (burns from flames, hot surfaces, steam, ...)

What do I see and enquire?

Following signs and symptoms may be observed:

- The casualty has first, second and/or third degree burn wounds.
- In case of burns to the face or inhalation of hot air or smoke, you may also observe:
  - soot around the mouth or nose, or
  - scorched eyebrows, eyelashes, moustache, beard or hair

What do I do?

SAFETY FIRST AND SEEK HELP

20. Make sure the situation is safe for yourself and (if possible) for the victim.

21. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.

RESCUING A PERSON FROM A FIRE:

The fire brigade is equipped and trained to rescue people from fires. It is their duty and is not the primary duty of a first aider.

However, in the exceptional case you need to rescue a person from a fire yourself, follow these guidelines:

22. Make sure you have already called for help prior entering the location.

23. Have a wet handkerchief/cloth around your face. Crawl along the floor to reach and pull out the casualty as most clean air will be at lower level.

24. Act swiftly and quickly because there might be some amount of carbon monoxide also in the room. A wet handkerchief and crawling on the floor will not protect you from it.

Do not open other doors or windows when there is fire in the room. The rush of air will increase the fire.
PROVIDE FIRST AID

25. If the person’s cloths are on fire:

a. stop him from running around;

b. douse the fire with water;

c. approach the person whilst holding a rug, heavy blanket, coat or cotton table cover in front of you and wrap him in it to smother the flames, or

d. make the person roll on the ground to smother the flames.
26. Cooling with water will prevent the burn from going deeper and will reduce the pain.

Pour water on the burn for 10-15 minutes or until the burn stops hurting.

Do not use very cold water for cooling the burns. Burn victims can easily become hypothermic.

27. Protect the burn victim by wrapping him in clean blankets.

28. If possible, wash your hands before taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

29. Put on gloves if available. You can also use a clean plastic bag.

Try not to touch the person’s wounds.

30. Cover burn wounds with a clean cotton cloth.

31. Do not open blisters—leave them intact.
32. Remove any clothing or jewellery that is not stuck to the burned skin. Do not remove parts of clothing or jewellery that are attached to the burn wounds.

33. If possible, remove the person’s belt, shoes or boots as the limb might swell.

34. Keep the casualty warm, but do not overheat him.

35. If possible, keep burned hands, legs or feet in an elevated position.

36. Do not leave the casualty alone, and keep observing him.

37. Observe the casualty’s breathing, especially when the person is burned in the face and exposed to heat or has breathed in a lot of smoke or hot air.

38. In case of severe burns, transport the casualty as quickly as possible to the nearby healthcare facility or hospital.

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. Put the person in the recovery position, if possible.

b. Continue to observe the victim and check his breathing

**WHAT DO I DO WHEN THE PERSON STOPS BREATHING?**

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- the scene becomes unsafe for you to continue.
Hygiene

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

When to refer a burn victim to a healthcare facility or hospital?

Always arrange urgent transport to the nearest healthcare facility and seek medical help straight away in a healthcare facility or hospital if:

- the injured person is under five years old or over 65 years old;
- the burn is on the face, eyes, ears, hands, feet, the sexual organs or joints;
- the burn circles the entire limb, body or neck;
- the burn is equal or larger than the injured person's hand size;
- the burn looks black, white, papery, hard and dry;
- the injured person has a decreased or no sense of feeling in or around the wound;
- the burns were caused by electricity, chemicals or high pressure steam;
- the injured person has inhaled flames or hot air, or breathed in a lot of smoke;
- clothing or jewellery is stuck to the skin;
- the victim suffers any other serious trauma due to the accident;
- the victim suffers from a medical condition, like diabetes; or
- the person's condition is getting worse.
Care of minor burns (small first and second degree burns)

For minor burns (small first and second degree burns) you can use fresh aloe vera or honey if available to cover the burn wound. This will help the wound to heal faster.

Hygiene

1. Wash your hands before taking care of the sick person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

2. Use gloves to protect yourself. If no gloves are available, you can use a clean plastic bag. Try not to come in contact with the person’s vomit, stool or fluids.

Provide first aid

After cooling down the burn wound (see above on how to approach the casualty):

3. Dress the wound with a clean cotton cloth.

4. Do not apply any medicine to the burns.
   
   Do not apply cotton wool to cover the burns.

   Do not use Vaseline to cover the burns.

   Do not apply any pastes or creams to the burns.
5. Make sure the burned casualty has sufficient fluids to drink.

6. Refer the victim to a healthcare facility for further management.

**When to refer a burn victim to a healthcare facility or hospital?**

Always refer the victim to a healthcare facility for further management.

Advise the injured person to seek medical care if in the days after:

- the burn smells bad,
- there is any discharge from the wound or the wound is soaked with pus,
- the pain remains or increases,
- there is swelling, or
- if he gets fever.

**Specific burn locations**

**Burns to the face**

The casualty having burned in the face or breathed in hot air or smoke, may experience difficulty in breathing:

- Approach the casualty as described for burns and scalds.
- Allow the casualty to take a position that allows him to breathe best and is most comfortable.
- Loosen clothing that might hinder easy breathing.
- Especially observe the casualty’s breathing and start CPR, if required.
- Always transport these burn victims urgently to a healthcare facility or hospital.

**Burns to the eye**

Flames or hot substances may have burned the eye(s).

Following signs and symptoms may be observed:

- scorched eyebrows, eyelashes;
- burn wounds around the eye; or
- red eyes with burning and itching sensation.

In case of burns to the eye:

39. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.

40. Rinse the eye immediately with plenty of water for 10-15 minutes, preferably from the nose outwards.

   Use clean water or water that has been boiled and cooled. Be careful: Room temperature water is more comfortable than cold water. Very warm water might burn the eye.

   Make sure no liquid or rinsing water runs into the other eye.

41. If the person wears contact lenses, ask the person to take them out and keep them in a safe place.

42. Arrange transport to the nearest healthcare facility or hospital.

43. Do not put medication into the eye.

44. Eye injuries have to be managed always with great care. Always refer these victims to the nearest healthcare facility or hospital.

**Electrical burns and electrocution by electricity or lightning**

Electrical burns are caused when electricity passes through the body.

The electricity source may be e.g. lightning or contact with household current, high voltage cables or transformers, or low voltage - high ampere electricity from a car, truck or tractor battery. Do not touch the casualty till the power switch has been turned off.

The electricity enters the body at the point of contact, goes through the body and exits at the point where the body touches the ground or at earth point. Often burn wounds may be observed at these entry and exit points. But inside the body the electricity can cause damage on its track that remains hidden.

Exposure to electricity can also cause cardiac arrest.

**What do I see and enquire?**

Following signs and symptoms might be observed:
Based on the situation you may be able to detect there has been an electrocution accident (e.g. you notice an electrical appliance connected to the electrical net next to the casualty, a high voltage wire might be next to the casualty, thunderstorm, ...).

The casualty may:
- be unconscious,
- have difficulty in breathing or have stopped breathing,
- be in cardiac arrest (no beating heart) or have an irregular pulse,
- have burn wounds, or
- have muscle spasms.

**What do I do?**

**SAFETY FIRST AND CALL FOR HELP**

45. Never touch a casualty that still is connected to an electrical source!

46. Turn off the source of electricity.

a. In case of high voltage currents, never try to move the wire or source of electricity away from the victim. High voltage current (+ 1000 Volt) can jump and kill up to 18 metres. Wait till the high voltage source has been turned off prior approaching the victim.
b. In case of electrocution by home electricity (220V) and if you cannot switch off the electric source, you may try move the source away from both you and the injured person using a dry, non-conducting object made of cardboard, plastic or wood.

c. In case of strike of lightning, make sure you and the victim stay safe. If you are at risk from ongoing lightning, wait until danger has passed. If possible stay inside a house or in a car.

47. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.

**PROVIDE FIRST AID**

48. Try not to move the casualty, except if he is in immediate danger.

49. Cool down the burn wounds. Use clean water. If there is no clean water available, use the available water.

Only do this, if there is no danger of further electrocution: make sure the current has been switched off.

a. Pour water on the burn for 10 to 15 minutes or until the burn stops hurting.
b. Do not use very cold water for cooling the burns. Burn victims can easily become hypothermic.

50. Protect the burn victim by wrapping him in a clean sheet of cloth or blankets.

51. If possible, wash your hands before taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

52. Put on gloves if available. You can also use a clean plastic bag.

Try not to touch the person’s wounds.

53. Cover burn wounds with a clean cotton cloth.

54. Do not open blisters – leave them intact.

55. Remove any clothing or jewellery that is not stuck to the burned skin.

Do not remove parts of clothing or jewellery that are attached to the burn wounds.
56. If possible, remove the person’s belt, shoes or boots as the limb might swell.

57. Keep the casualty warm, but do not overheat him.

58. If possible, keep burned hands, legs or feet in an elevated position.

59. Do not leave the casualty alone, and keep observing him.

60. Transport the casualty as quickly as possible to the nearby healthcare facility or hospital.

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing

**WHAT DO I DO WHEN THE PERSON STOPS BREATHING?**

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- The scene becomes unsafe for you to continue.

**HYGIENE**

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**When to refer the victim to a healthcare facility?**

- Always seek medical help straight away in a healthcare facility or hospital if:
  - the person got electrocuted by a high voltage source or got struck by lightning;
  - the injured person is under five years old or over 65 years old;
  - the burn is on the face, eyes, ears, hands, feet, the sexual organs or joints;
- the burn circles the entire limb, body or neck;
- the burn is equal or larger than the injured persons hand size;
- the burn looks black, white, papery, hard and dry;
- the injured person has a decreased or no sense of feeling in or around the wound;
- clothing or jewellery is stuck to the skin;
- the victim suffers from any other serious trauma due to the accident;
- the victim suffers from a medical condition, like diabetes; or
- The person’s condition is getting worse.

**Chemical burns**

Some chemicals may irritate burn or penetrate the skin and cause damage, sometimes even death. Unlike burns by heat or electrocution, these burns may develop slowly.

Chemical burns are always to be considered serious and always require medical follow up.

**What do I see and enquire?**

Following signs and symptoms may be observed:

- There may be evidence of chemicals in the vicinity of the casualty.
- The victim may complain of intense stinging pain.
- At the body parts that came into contact with the chemical:
  - The skin may be irritated or burned.
  - The skin may be discoloured.
  - The skin may be swollen.
  - The skin may show blisters.
  - The skin may peel off.
- There may be signs of poisoning (see chapter on Poisoning page ...........).
What do I do if the victim’s skin is burned by a chemical?

**SAFETY FIRST AND CALL FOR HELP**

61. Make sure the area is safe for you and the victim and make sure you do not come into contact with the chemical yourself unprotected.

62. Shout or call for help if you are alone but do not leave the person alone. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.

**PROVIDE FIRST AID**

63. Wear gloves to protect yourself. If no gloves are available, use a plastic bag to cover your hands.

64. Remove the cause of the burn by first brushing off any remaining dry chemical and then rinsing the chemical off the skin surface with cool, gently running water for 10 to 15 minutes.

65. Remove clothing or jewellery that has been contaminated by the chemical.
66. Wrap the burned area loosely with a clean cloth.

67. Rewash the burned area for several more minutes if the person experiences increased burning after the initial washing.

68. Arrange transport to the nearest healthcare facility.

**WHAT DO I DO WHEN THE CHEMICAL HAS BEEN SWALLOWED OR BREATHED IN?**

Approach the casualty as described in the chapter ‘Poisoning’ (page .......).

**WHAT DO I DO WHEN HARMFUL LIQUIDS WERE SPILLED IN THE EYE?**

Approach the casualty as described in the chapter ‘Burns to the eye’ (page .......).

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing.

**WHAT DO I DO WHEN THE PERSON STOPPED BREATHING?**

Perform CPR.

Don’t interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathe normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- The scene becomes unsafe for you to continue.

**HYGIENE**

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available, but may not remove the chemicals from your hands completely.

**When to refer to a healthcare facility?**

Always transport the victim of chemical burns urgently to the nearest healthcare facility or hospital.
Sunburns

Direct exposure to sunlight can have ill effects on the skin and eyes.

The injury to the skin is known as "sunburn". It is caused by the exposure to ultraviolet rays from the sun. When UV B rays penetrate the deeper skin layers damage to the cells occurs. The skin becomes red and painful. In some cases the damage to the cells is so severe resulting in skin peeling and blistering.

WHAT DO I SEE AND ENQUIRE?

Following signs and symptoms may be observed when a person suffers a sunburn:

- reddened skin,
- warm skin, and
- pain of varying degrees.

In more severe cases:

- swelling,
- blistering, and
- weeping skin.

WHAT DO I DO?

1. Bring the casualty to a shaded cool place. If this is not possible, cover the skin with light clothing or a towel.

2. Cool down the skin by sponging or by slowly showering for about 10-15 minutes. Be careful not to overcool the casualty: do not use too cold water.
9. Encourage the casualty to have frequent sips of cool water (this is an exception to the standard first aid guideline of not giving a casualty to drink or to eat).

10. For severe burns, refer the casualty to the nearest healthcare facility.
    For minor burns, an after-sun cream may be applied.

11. Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**WHEN TO REFER TO A HEALTHCARE FACILITY?**

Always refer the casualty to the nearest healthcare facility if:

- The burns cover a large body surface.
- There are blisters.
- The casualty is a child or an elderly person.
- When you notice signs of a heat stroke (see chapter on Heat stroke page 215).

**Sunburn of the eye and snow or welders blindness**

Snow blindness or sunburn of the eye (also known as photokeratitis or ultraviolet keratitis) is a painful eye condition caused by exposure of insufficiently protected eyes to the ultraviolet rays.

Common causes are looking into welding light without eye protection; exposure to sunlight reflected from snow and ice without wearing sun glasses, or looking directly into sunlight (e.g. looking at a solar eclipse) without using the appropriate protection.

**WHAT DO I SEE AND ENQUIRE?**

Following signs and symptoms may be observed when a person suffers sunburn of the eye(s) or suffers snow or welders blindness:

- The casualty complains of intense pain in the affected eye(s).
- The eye(s) is (are) red.
- The eye(s) have tears.
- The casualty may be sensitive to light.
- The casualty may report having stared directly into the sun or into strong light (like welding light or fireworks)

**WHAT DO I DO?**

69. Reassure the casualty.

70. If the person wears contact lenses, ask the person to take them out and keep them in a safe place.
Ask the casualty to protect his eye(s) by holding a non-fluffy pad to each injured eye. Eventually, the eye pads may have been wetted with clean water. If no eye pad is available, ask him to keep the eyes closed or use sunglasses.

**Put no pressure on the eyes.**

71. Arrange transport to the nearest healthcare facility or hospital.

72. Do not put medication into the eye.

73. Refer the casualty to a healthcare facility.

74. Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**When to refer to a healthcare facility?**

Eye injuries have to be managed always with great care. Always refer these victims to the nearest healthcare facility.
Chapter 3 :- Bite and stings

Animal bites (dog, cat, monkey, mongoose, horse, cow or other animal bites)

Any bite of an animal (or human) that breaks the skin needs special attention because it carries a high risk of infection!

Many animals including dog, cat, monkey, fox, bat, cow, horse or jackals may carry germ of rabies. Rabies is a viral infection that targets the brain and nervous system. A person can catch rabies when bitten or scratched by an infected animal. If not treated urgently, the disease is lethal. All victims of dog (cat, monkey, jackals etc.) bites or scratches need to be referred immediately for further treatment and follow up.

What do I see and enquire?

You might see the following on a person that has been bitten:

- Bite marks.
- Puncture wounds (if skin is broken).
- Scraped skin.
- Moderate or severe bleeding.
- Local swelling.
- Redness.
- Pain.

What do I do?

Safety first and hygiene

1. Make sure the area is safe and the animal cannot bite you or the injured person again.

2. Wash your hands before and after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

3. Put on gloves if available. If not, you can also use a clean plastic bag.

Try not to come in contact with the injured person’s blood or wound.
Provide first aid

4. Flush the wound immediately with lots of clean water and then wash the wound with soap and water or a detergent for 10-15 minutes, if available to remove the rabies virus from the wound. Wash with povidone-iodine (Alopim, Betadine, Clopo, Wokadine, a.o.) if available. Washing is also necessary when a person is licked, scratched or has abrasion.

5. If the person is severely bleeding, stop the bleeding by applying pressure to the wound.

6. Do not cut the wound larger.

7. Do not put herbs or unclean materials, like chilies, oil and petrol, in or on the wound.

8. Cover the wound with a dry clean cloth or bandage.

9. Refer the person to a healthcare facility immediately for further treatment.

Hygiene

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

When to refer to a healthcare facility?

A person bitten by a dog (or any other animal) should always visit the nearest healthcare facility.

Any person who was licked, scratched or suffered abrasions from an animal should visit the healthcare facility.

Insect stings and bites

Most insect bites and stings cause small reactions that are confined to the area of the bite or sting (local reaction). They can usually be treated at home.
Insect stings inside the throat are dangerous due to potential swelling and can be life-threatening.

Mites, ticks and leeches are found in marshes and jungles. They attach themselves firmly to the skin. Mites and ticks might carry typhus and may transmit it to the person. Ticks may also transmit the lyme disease.

Leeches are mostly harmless, but suck blood from the victim.

The effects of stings from scorpions or bites of spiders vary according to the type of the insect. Note that not all insects are poisonous.

**What do I see and enquire?**

If a person has been stung or bitten by an insect, you might observe:

- pain,
- swelling,
- redness or rash,
- itching,
- Some animals stay sucked onto the skin.

Some people experience an allergic reaction to the sting. This reaction can be localised or systemic. A systemic allergic reaction requires immediate medical attention as it is potentially life-threatening.

A person with a systemic allergic reaction may show the following symptoms:

- rash;
- itching;
- wheezing, hoarseness of voice or difficulty in breathing;
- dizziness or feeling faint;
- difficulty in swallowing;
- a swollen face or lips;
- nausea, vomiting or diarrhoea;
- Confusion, anxiety or agitation.

The effects of bites or stings from scorpions or spiders vary according to the type of the animal. Note that not all insects are poisonous.

**What do I do?**

**Safety first**

12. Make sure the area is safe before you assist the person.
13. If you are in an area where the wasp or hornet is still around, walk calmly away to a safer area with the victim. If attacked by a swarm, run away as fast as possible and seek shelter (indoors, in a car...).

**Provide first aid**

14. Ask the person to keep calm.

**IN CASE OF A BEE OR WASP STING**

Removing the sting of bees (wasps and hornets don’t usually leave their sting behind) as quickly as possible can help to keep the bite smaller. Use a fingernail, the edge of a bankcard, or whatever thin sturdy material you have at hand to remove the sting. This can be easily done by pushing upwards from underneath the sting site in a sliding position.

**IN CASE OF A TICK BITE**

Remove ticks using fine tweezers (not with fingers) and grab the tick as close to the skin as possible. Pull it firmly up until the tick’s mouthparts have been removed.

Do not twist or jerk the tick to remove it.

Do not use petroleum jelly, alcohol, a lit match or cigarette, or any other method to try to remove a tick.
IN CASE OF A LEECH BITE

If you find one leech on the person’s body, check the entire body as there may be more. Slide a fingernail, the edge of a bankcard or whatever thin sturdy material you have at hand, under the sucker mouth (the smaller head of the leech) of the leech and flick it off right away. Do not squeeze the leech.

The person may also consider the leech to fill up and fall off by themselves.

Do not put salt on the leech or burn it, as this will make the leech to vomit back into the wound before it falls off. Leech bites tend to bleed for a long time, apply a small bandage and change it regularly.

15. Wash the sting or bite site and wipe away any venom.

16. Do not suck or cut the venom out of the skin.

Do not rub herbs on the bite.

17. Use ice, if you have it, to cool the bite or sting.

Wrap the ice in a cloth or a towel so that it does not touch the skin directly.

If you do not have ice, use cold water.
Do not cool for more than 20 minutes at a time.

18. You may raise the legs of a person suffering an anaphylactic shock.

Hygiene

Wash your hands after taking care of the person. Wash your hands with soap and water. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

What do I do if the person is unconscious, but is still breathing?

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing

What do I do when the person stopped breathing?

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- the scene becomes unsafe for you to continue.

When to refer to a healthcare facility?

If the person’s condition worsens or the pain does not get better or gets worse, always refer the person to a healthcare facility.
Chapter 4: Snake Bite

Snake bites

There are more than 2500 different kinds of snakes. The effects of snake bites vary according to the type of snake. Note that not all snakes are poisonous, not all poisonous ones are lethal, but one should always be careful handling snakes. All snake bites should be treated as if they are poisonous bites. Snakes rarely strike when not disturbed or threatened.

What do I see and enquire?

If a person has been bitten by a snake, you might observe:

- bleeding,
- swelling,
- bruising,
- pain,
- numbness,
- weakness,
- confusion,
- affected vision,
- affected speech,
- nausea or vomiting,
- cardiac arrest, or
- Difficult breathing.

What do I do?

Safety first

10. Make sure the area is safe before you assist the person.

11. The injured person urgently needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility. Tell him to come back to you to confirm if help has been secured.
Provide first aid

12. Comfort person

13. Help the injured person to lie down and tell him not to move. Offer comfort and keep the person calm, but do not forcibly restrain him. Keeping calm and not moving will slow the spread of the venom.

If safe to do so, check what type of snake has bitten the person. If possible, note down the features of the snake. Do not lose time chasing the snake: the person needs urgent help now. It is difficult to assess whether a snake is poisonous or not. Therefore, always assume that the snake is poisonous.

14. Watch the person for any change in his condition (i.e. consciousness and breathing).

15. Put on gloves if they are available. If not available, you can also use a clean plastic bag to cover your hands.

   Try not to come in contact with the person's blood.

16. Do not suck or cut the venom out of the skin.

   Do not rub herbs on the bite.
17. Do not apply a tourniquet.

18. Remove any rings, watches or tight clothing that may cut off the blood flow because of swelling.

19. Try not to move the injured limb and eventually apply a splint (if you are trained on how to apply splints) to immobilize the affected part.

20. Cover the wound with a clean cotton cloth or bandage.

21. Once action to obtain help has been taken, stay with the injured person until help is available.

22. Observe the condition of the person (i.e. consciousness and breathing).

23. Arrange urgent transport to the nearest healthcare facility or hospital.

**What do I do if the person is unconscious, but is still breathing?**

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing
**What do I do when the person stopped breathing?**

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- The scene becomes unsafe for you to continue.

**What do I do when venom got into the eyes?**

1. Clean eye with water
2. Rinse the eyes for 10-15 minutes with clean water.
3. Pour the water from the nose outwards.

**What do I do if the person is bitten in the leg?**

24. Immobilize the leg by bandaging it to the other leg.

25. Splint leg with snake bite wound
   
   To do so:
   
   a. Gently bring the good leg to the bitten leg.
   b. Use a stick to splint the limb and bandage it into place with cloths or clothing.

**What do I do if the person is bitten in the arm or hand?**

26. Hold arm still

27. Tell the injured person to immobilize the injured arm himself by holding it close to the body. If it cannot be done due to any reason, immobilize the arm with a triangular bandage.
WHAT DO YOU DO WHEN YOU ARE BITTEN AND YOU ARE ALONE?

1. If possible, try to move as little as possible and shout for somebody to come and help you.
2. Remove rings, watches or jewels from the bitten limb.
3. If you need to move to find help, restrict the movement of the limb that has been bitten as much as possible and try to limit brisk movements.
4. Go to the nearest place where somebody can help you.
5. Always seek medical help.

Hygiene

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

When to refer to a healthcare facility?

Always urgently transport a snake bite victim to the nearest healthcare facility.
Chapter 5 :- ELECTRIC SHOCK

Electrical burns and electrocution by electricity or lightning
Electrical burns are caused when electricity passes through the body.

The electricity source may be e.g. lightning or contact with household current, high voltage cables or transformers, or low voltage - high ampere electricity from a car, truck or tractor battery. Do not touch the casualty till the power switch has been turned off.

The electricity enters the body at the point of contact, goes through the body and exits at the point where the body touches the ground or at earth point. Often burn wounds may be observed at these entry and exit points. But inside the body the electricity can cause damage on its track that remains hidden.

Exposure to electricity can also cause cardiac arrest.

What do I see and enquire?
Following signs and symptoms might be observed:

- Based on the situation you may be able to detect there has been an electrocution accident (e.g. you notice an electrical appliance connected to the electrical net next to the casualty, a high voltage wire might be next to the casualty, thunderstorm, ...).
- The casualty may:
  - be unconscious,
  - have difficulty in breathing or have stopped breathing,
  - be in cardiac arrest (no beating heart) or have an irregular pulse,
  - have burn wounds, or
  - have muscle spasms.

What do I do?

SAFETY FIRST AND CALL FOR HELP
NEVER TOUCH A CASUALTY THAT STILL IS CONNECTED TO AN ELECTRICAL SOURCE!

75. Turn off the source of electricity.

a. In case of high voltage currents, never try to move the wire or source of electricity away from the victim. High voltage current (+ 1000 Volt) can jump and kill up to 18 metres. Wait till the high voltage source has been turned off prior approaching the victim.

b. In case of electrocution by home electricity (220V) and if you cannot switch off the electric source, you may try move the source away from both you and the injured person using a dry, non-conducting object made of cardboard, plastic or wood.
c. In case of strike of lightning, make sure you and the victim stay safe. If you are at risk from ongoing lightning, wait until danger has passed. If possible stay inside a house or in a car.

76. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.

**Provide first aid**

77. Try not to move the casualty, except if he is in immediate danger.

78. Cool down the burn wounds. Use clean water. If there is no clean water available, use the available water.

Only do this, if there is no danger of further electrocution: make sure the current has been switched off.

a. Pour water on the burn for 10 to 15 minutes or until the burn stops hurting.

b. Do not use very cold water for cooling the burns. Burn victims can easily become hypothermic.

79. Protect the burn victim by wrapping him in a clean sheet of cloth or blankets.

80. If possible, wash your hands before taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

81. Put on gloves if available. You can also use a clean plastic bag.

Try not to touch the person’s wounds.
82. Cover burn wounds with a clean cotton cloth.

83. Do not open blisters – leave them intact.

84. Remove any clothing or jewellery that is not stuck to the burned skin.
     Do not remove parts of clothing or jewellery that are attached to the burns.

85. If possible, remove the person’s belt, shoes or boots as the limb might swell.

86. Keep the casualty warm, but do not overheat him.

87. If possible, keep burned hands, legs or feet in an elevated position.

88. Do not leave the casualty alone, and keep observing him.

89. Transport the casualty as quickly as possible to the nearby healthcare facility or hospital.

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing.
WHAT DO I DO WHEN THE PERSON STOPS BREATHING?

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- The scene becomes unsafe for you to continue.

HYGIENE

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

When to refer the victim to a healthcare facility?

Always seek medical help straight away in a healthcare facility or hospital if:

- the person got electrocuted by a high voltage source or got struck by lightning;
- the injured person is under five years old or over 65 years old;
- the burn is on the face, eyes, ears, hands, feet, the sexual organs or joints;
- the burn circles the entire limb, body or neck;
- the burn is equal or larger than the injured persons hand size;
- the burn looks black, white, papery, hard and dry;
- the injured person has a decreased or no sense of feeling in or around the wound;
- clothing or jewellery is stuck to the skin;
- the victim suffers from any other serious trauma due to the accident;
- the victim suffers from a medical condition, like diabetes; or
- the person’s condition is getting worse.
Chapter 6: Heat Exhaustion & Heat Stroke

Heat exhaustion

Heat exhaustion is a milder form of heat-related illness that can develop after prolonged exposure to high temperatures and inadequate or imbalanced replacement of fluids. Those most prone to heat exhaustion are elderly people, people with high blood pressure, and people working or exercising in a hot environment.

What do I see and enquire?
Following signs and symptoms may be observed:

- heavy sweating;
- paleness;
- the casualty complains of muscle cramps;
- the casualty complains of headache, dizziness or tiredness;
- the casualty may act confused;
- rapid, weakening pulse; and
- Fast, shallow breathing.

What do I do?

Provide first aid

90. Help the casualty move to a cool place.

91. Help the casualty to lie down with the legs slightly raised.
92. Cool the casualty by sponging him or having him to take a cool shower.

93. Ask the casualty to rest.

94. Ask the casualty to drink plenty of water (this is an exception to the standard first aid guideline of not giving to drink or to eat to a casualty).

95. Keep observing the casualty’s breathing and consciousness.

96. Refer the casualty to a healthcare facility.

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing

**WHAT DO I DO WHEN THE PERSON STOPPED BREATHING?**

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue; or
- the scene becomes unsafe for you to continue.

**When to refer to a healthcare facility?**

Always refer the casualty to a healthcare facility for further medical follow up.
Heatstroke

Normally the body dissipate the heat with the help of sweat glands.

In some cases the body may not be able to dissipate the heat by sweating and the body temperature rises, sometimes up to 41.1 degrees Celsius (106 degrees Fahrenheit) or higher. Or a dehydrated person may not be able to sweat fast enough to dissipate heat, which causes the body temperature to rise. Heat regulation mechanism fails during heatstroke.

Heatstroke is a form of hyperthermia, an abnormally elevated body temperature with accompanying physical and neurological symptoms. Heatstroke is a true medical emergency that can be fatal if not properly and promptly treated. Most susceptible to heat strokes are infants and the elderly.

What do I see and enquire?

Following signs and symptoms may be observed:

- a hot flushed, red dry skin;
- the casualty complains of headache, dizziness or discomfort;
- the casualty may act confused or is restless;
- a full bounding pulse; and
- A body temperature above 40 degrees Celsius (>104 F).

What do I do?

Provide first aid

97. Help the casualty move to a cool place.

98. Check the casualty’s breathing and consciousness.

99. Help the casualty to lie down with the legs slightly raised.

100. Cool the casualty by sponging him or showering him with cool water.
101. Make the casualty to rest.

102. If the casualty is conscious, ask the casualty to drink water (this is an exception to the standard first aid guideline of not giving to drink or to eat to a casualty).

103. Keep observing the casualty’s breathing and consciousness.

104. Transport the casualty to the nearest healthcare facility or hospital.

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. Put the person in the recovery position.

b. Continue to observe the victim and check his breathing

**WHAT DO I DO WHEN THE PERSON STOPPED BREATHING?**

Perform CPR.

Do not interrupt the resuscitation until:

- the person starts to wake up, moves, opens his eyes and breathes normally;
- help (trained in CPR) arrives and takes over;
- you become too exhausted to continue, or
- the scene becomes unsafe for you to continue.

**Hygiene**

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.
When to refer to a healthcare facility?

Always transport the casualty suffering a heatstroke to a healthcare facility for further medical treatment and follow up.
Chapter 7: Frostbite

Frostbites

An inadequate blood circulation when the ambient temperature is low leads to frostbites. Frostbite is damage to skin and tissues caused by exposure to freezing temperatures – typically any temperature below minus 0.5 degrees Celsius (31 degrees Fahrenheit).

Causes can be exposure to extreme cold weather, wearing inadequate or wet clothing, or wind chill. The poor blood circulation caused by too tight clothing or boots, staying in a cramped position, fatigue, certain medications, smoking, alcohol use, or diseases that affect the blood vessels, such as diabetes may enhance the process.

Frostbites can affect any part of your body. However, the extremities, such as the hands, feet, ears, nose and lips, are most likely to be affected as the body is constricting circulation to extremities on its own to preserve core temperature and fight hypothermia.

The symptoms of frostbite usually begin with the affected parts feeling cold and painful. If exposure to the cold continues, the person may feel pins and needles before the area becomes numb as the tissues freeze.

People with a history of severe frostbite often report after effects of frostbite. These can include:

- increased sensitivity to cold;
- numbness in the affected body parts, most commonly the fingers;
- reduced sense of touch in the affected body parts; and
- persistent pain in the affected body parts.

What do I see and enquire?

You may observe following signs and symptoms:

- The person complains of feeling pins and needles, throbbing or aching in the affected area.
- The skin feels cold, numb and white.
- The person may feel a tingling sensation.

If the frostbite is more advanced:

- the affected area may feel hard and frozen;
- when the person is out of the cold:
  - the tissue is thawed out (defrosted and becomes soft);
  - the skin will turn red and blister, which can be painful;
  - There may also be swelling and itching.

If the exposure to the cold continues and the frostbite develops further:
• the skin becomes white, blue or blotchy, and
• The tissue underneath feels hard and cold to touch.

When the person is out of the cold and the skin thaws (defrosts):

• Blood-filled blisters form and turn into thick black scabs. At this stage, it is likely that some tissue has died. This is known as tissue necrosis, and the tissue may have to be removed to prevent infection.

What do I do?

Safety first

Make sure you are protected sufficiently against the cold, prior helping the other person.

Provide first aid

If possible, move the victim to a warmer place.

It is best that the person avoids to walk on frostbitten toes and feet as this can cause further damage, although in emergency situations this may not always be possible.

Replace wet clothing with soft, dry clothing to stop further heat loss.
Gently remove gloves, rings, and other constrictions, such as boots.

The affected areas need to be re-warmed.

Do not try to do this until you are out of the cold. If the warming process is started and the frozen parts are re-exposed to the cold, it can cause further irreversible damage.

You can warm the affected part with your hands, in your lap, or in the person’s armpits, or emerge the affected body parts in clean lukewarm water (water at about the normal body temperature (37 degrees Celsius (98.6 degrees Fahrenheit)) for 20 minutes.
Do not rub the affected area as this can damage the skin and other tissues and do more harm than benefit.

Do not apply direct heat (such as from a fire or heater) as this can cause further injury. Re-warming should last at least 30 minutes and should only be stopped once the affected body part has a red-purple colour and can be easily moved.

Do not allow the person to smoke as this can affect blood circulation.

After the frostbitten area has been thawed, it should be wrapped very gently in clean bandages, with the fingers and toes separated. It is very important to keep the skin clean to avoid infection. Wash your hands prior bandaging the frostbites.

Too much movement should be avoided, and the limbs should be elevated if possible. Ask the person not to walk on affected parts that have been re-warmed as the tissues will be very delicate.

Refer the person with frostbites to a healthcare facility.

Transport the person to the nearest healthcare facility or hospital in case of advanced frostbites.

**Hygiene**

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.
When to refer to a healthcare facility?

- Always urgently transport the person suffering severe frostbites to the nearest healthcare facility.

- A person with minor frostbites should also always be referred to a healthcare facility.
Chapter 8: Hypothermia \ Low Body Temperature

**Hypothermia**

Hypothermia occurs when a person’s body temperature drops below 35 degrees Celsius (95 degrees Fahrenheit) [the normal body temperature is around 37 degrees Celsius (98.6 degrees Fahrenheit)].

Hypothermia can quickly become life threatening and should be treated as a medical emergency.

It’s usually caused by being in a cold environment and can be triggered by a combination of factors, such as being outdoors in cold conditions for a long time, living in a poorly heated house or falling into cold water.

**What do I see and enquire?**

You may observe following signs and symptoms:

- shivering, though this may stop as body temperature drops;
- slurred speech or mumbling;
- slow, shallow breathing;
- weak pulse;
- clumsiness or lack of coordination;
- drowsiness or very low energy;
- confusion or memory loss;
- loss of consciousness; or
- Bright red, cold skin (in infants).

**What do I do?**

**Safety first**

Make sure you are protected sufficiently against the cold, prior helping the other person

**Provide first aid**

Gently move the person out of the cold.

If going indoors isn’t possible, protect the person from the wind, especially around the neck and head and insulate the individual from the cold ground.
Gently remove wet clothing. Replace wet things with warm, dry coats or blankets.

If further warming is needed, do so gradually. For example, apply warm, dry cloths to the center of the body — neck, chest and groin.

Offer the person warm, sweet, non-alcoholic drinks slowly in sips. This is another important exception to general principles of first aid (not giving casualty to eat or drink).

Do not apply direct heat. Do not re-warm the person too quickly, such as with a heating lamp or hot bath.

Don’t attempt to warm the arms and legs. Heating or massaging the limbs of someone in this condition can stress the heart and lungs.
Don’t give the person alcohol or cigarettes. Alcohol hinders the re-warming process, and tobacco products interfere with circulation that is needed for re-warming.

Urgently transport the person to the nearest healthcare facility or hospital.

**WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING?**

a. **Put the person in the recovery position.**

b. **Continue to observe the victim and check his breathing**

**WHAT DO I DO WHEN THE PERSON STOPPED BREATHING?**

Perform CPR.

Do not interrupt the resuscitation until:

- help arrives and takes over;
- the person starts to wake up, moves, opens his eyes and breathes normally;
- you become too exhausted to continue, or
- the scene becomes unsafe for you to continue.

**Hygiene**

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.

**When to refer to a healthcare facility?**

Always urgently transport the hypothermic person to the nearest healthcare facility.
Chapter 9: Poisoning

Some substances when taken in can be dangerous to the health of human beings and can even cause death. Such substances are called ‘poisons’ or ‘toxins’.

Poisoning can occur when these poisons are taken by accident or with a view to causing harm or committing suicide.

Poisons can get into the body by swallowing, inhaling (gases), by injection or via absorption through the skin.

Poisoning by swallowing

Poisoning from swallowing is often caused by household products, overdose of medication or toxic plants.

The effects of poisoning depend on what poison has been swallowed.

- Acids, alkalis, disinfectants etc. swallowed burn the lips, tongue, throat, oesophagus and stomach and cause great pain.
- Other swallowed poisons cause vomiting, pain abdomen and later on diarrhoea (e.g. poisonous fungi, berries, metallic poisons).
- Some swallowed poisons affect the nervous system. To this group belong:
  - alcoholic drinks (methylated spirit, wine, whisky etc.) when taken in large quantities;
  - Sleeping pills, tranquilizers, and painkillers when taken in overdoses.

Victims of poisoning must be considered as seriously ill. The symptoms are either delirium or fits or coma.

Please note that ‘Food poisoning’ is an illness caused by eating contaminated food. Please see the ‘Food poisoning’ chapter page for more information on this topic.

Poisoning by gases

Fumes or gases from charcoal stoves, household gas, motor exhausts and smoke from explosions etc., cause choking (asphyxia) which may result in unconsciousness in addition to difficulty in breathing. Please refer to the chapter on ‘Suffocation by smoke or gasses’ for more information (page ).

Poisoning by injection

Poisons get into the body through injection, bites of poisonous snakes and rabid dogs, or stings by scorpions and poisonous insects. Danger to life is again by choking and coma. Please refer to the chapter on animal bites for more information (page ).
Poisoning by skin absorption
Hazardous chemicals that are split on the skin can cause irritation or burns. Certain substances can be also absorbed through the skin and cause damage inside the body. Please refer to the chapter on ‘Chemical burns’ for more information (page ).

What do you see and enquire?
Following signs and symptoms may be observed in a case of poisoning:

- nausea and vomiting;
- pain in lips, mouth or throat;
- frothing from mouth
- abdominal pain or cramps;
- redness, skin rash;
- itching;
- swelling;
- blurred vision;
- irregular, slow or fast heartbeat (pulse);
- hyperactivity or slowness;
- muscle twitching;
- seizures;
- impaired consciousness or unconsciousness;
- difficulty in breathing;
- slow breathing; or
- Cyanosis (blue-grey skin (lips)).

What do I do?
Safety first and call for help
Secure your own safety, and then the safety of the affected person.

The person urgently needs help. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to call the anti-poison centre or a nearby hospital, healthcare facility or medical caregiver for advice on how to act in case of a specific poisoning, to seek help and to arrange for urgent transport to the nearest healthcare facility. Tell him to come back to you to confirm if help has been secured.

If possible, wash your hands before and after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available.
Use gloves to protect yourself. If gloves are not available, you can use a clean plastic bag.

Provide first aid

If possible, try to find out what poison has been swallowed, injected, inhaled or has come into contact with his skin. But be careful: do not put yourself in a dangerous situation to find the origin of the poisoning! If it is safe, keep the container of the poison to show to the doctor.

Avoid contact with the poison.

If not done yet, call the anti-poison centre or a nearby hospital, healthcare facility or medical caregiver for advice on how to act in case of a specific poisoning.

Do not give the person anything to drink or eat.

Do not give milk or water to a poisoned person.

Do not induce vomiting.

Transport the person urgently to the nearest healthcare facility or hospital.
Hygiene

Wash your hands after taking care of the person. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available, but may not be sufficient to remove poison.

When to refer to a healthcare facility?

(always urgently transport the person to a healthcare facility or hospital for further treatment. Being poisoned can be a dangerous situation and requires medical attention.

Always call the anti-poison centre or a nearby hospital, healthcare facility or medical caregiver for advice on how to act in case of a specific poisoning.)
Chapter 10 – Air Pollution

Air pollution can harm us when it accumulates in the air in high enough concentrations. Millions of Indians live in areas where urban smog, particle pollution, and toxic pollutants pose serious health concerns. People exposed to high enough levels of certain air pollutants may experience:

- Irritation of the eyes, nose, and throat
- Wheezing, coughing, chest tightness, and breathing difficulties
- Worsening of existing lung and heart problems, such as asthma
- Increased risk of heart attack

In addition, long-term exposure to air pollution can cause cancer and damage to the immune, neurological, reproductive, and respiratory systems. In extreme cases, it can even cause death.

Who Is Most at Risk? Air pollution is a problem for all of us. However, some groups of people are especially sensitive to common air pollutants.

Sensitive populations include
1. Children,
2. Elderly people
3. People who are active outdoors, and people with heart or lung diseases, such as asthma.

What Do I Enquire?

Patient condition of distress.
Air pollution can trigger Asthma.
Treat Breathlessness and chest pain as per First aid guidelines discussed earlier.

Do’s and don’ts during increase level of Air pollution:

1. To remain indoors: Go out when it’s bright and sunny. Children’s and persons especially suffering from heart and lung ailments are advised to stay indoors as much as possible
2. Use nasal filters or air purifiers, they can provide short-term relief.
3. Regular intake of fruits rich in vitamin C, magnesium and omega fatty acids. These fruits are rich in antioxidants and anti-inflammatory compounds and boost immunity.
4. Do make sure you drink more water as it helps in flushing toxins from the body.
5. Don’t use main roads. Pollution drops away substantially when you’re walking in smaller lanes away from the main roads.
6. Avoid strenuous activity, which leads to inhalation of greater volumes of minute pollutants.
7. If you have to exercise, do it indoors, preferably in the evening.
8. Don’t step out or indulge in outdoor activities during the early morning and evening hours in view of “severe” levels of air pollution in the city.
9. To keep some air purifying plants in homes and offices like aloe vera, ivy etc.
10. Try alternative modes of transport, pool your car with friends and fellow commuters.
11. Consult a doctor or emergency department of nearest hospital in case of difficulty in breathing, severe coughing or onset of any other acute symptoms.
12. Avoid Smoking. Kindly do not burn garbage and even do not allow anyone to do so in your neighbourhood.
CHAPTER 11:- LABORATORIES INJURIES

People working in laboratories are always prone to exposure of chemicals in different ways:- By Inhalation, Eye Contact, Ingestion & Skin Contact.

Prevention:-

- Laboratory coats must be worn at all times (if available)
- Wear appropriate gloves
- There should be no eating, chewing gum, drinking, smoking or applying cosmetics in any laboratory.
- No pipe ting by mouth; always use pipette filler.
- All broken glass must be placed in a labelled bin (Broken Glass); **nothing else should go in that bin.**

**First Aider Action - Inhalation**

1) Your own safety is important: Protect yourself from cold sufficiently prior to help the other person
2) Call for HELP.
3) Don’t enter the area without proper breathing equipment call for Fire Department and Ambulance if patient is still inside the area.
4) If safe to do so, remove the casualty into fresh air.
5) Evaluate patient
6) Call AMBULANCE
7) Patient should avoid physical exercise (even if they are not experiencing any symptoms). If Patient become unconscious and first aider is required to provide rescue for an unconscious casualty during the application of CPR, a facemask should always be used.
8) Hand over product level to ambulance personal for any information available regarding treatment

**First Aid Procedure - Eye Contact**

1) Ensure safety procedure
2.) Move to safe place
3.) Evaluate the patient condition
4) Seek medical help or transfer to nearest medical facility and provide information related to product information.
5) Refer to eye injury section (page no--)

**First Aid Procedure - Skin Contact**

1) Commence DR CAB Driver procedure.
2) Remove contaminated clothing and footwear.
3) Wash the affected areas with running water for at least 20 minutes.
4) Do not attempt to pick off any solid chemical contaminants that are attached to the skin.
5) Cover the affected area with a sterile, non-stick dressing.
6) If necessary, seek emergency medical treatment and Seek medical help.
E. Basics for Disaster Management and Triage

Disasters and multiple casualty accidents

India is such a vast country that some part is affected by flood, drought, cold, heat-wave, fire, earthquake, vehicle or train accidents ... at any given time. These incidents can cause huge losses from collapsed buildings, damaged crops to large number of human casualties. Sometimes disasters strike suddenly.

Rendering of first aid to the victims affected by a disaster is a very important relief activity and is a part of the first aid training programmes. Mass casualty management stresses the importance of the role of first responders and first aiders in disaster relief and counts on their preparedness to respond to emergency situations.

In recent years, there have been renewed realizations that the people who become victim of injury or sudden illness need not only immediate attention but also proper medical care. Thus, it is imperative that first aid training and practice should keep pace with modern medical advancements.

Unfortunately, many human lives are lost or disturbed by disasters and accidents. These stressful life events should be supported by appropriate and timely psychological aid. It is very important that someone is helping in making necessary arrangements, giving practical advice, listening to the grievances, assuaging the feelings and providing physical comfort by being with them. It is also important to educate victims about stress reactions and where to refer to for further help. These tasks do not require a psychologist, but trained first aiders can assist supporting these victims.

For smooth working at a disaster or mass casualty accident site the first aiders need to:

- Have the appropriate knowledge and training in first aid and disaster management.
- Have the capability to think practically and be able to improvise, if required.
- Obtain the full particulars nature of the accident or disaster and the affected site.
- Coordinate with the appropriate governmental authorities.
- Coordinate with other local agencies, other institutions or organizations.
- List the resources (transport capacity, available medical personnel, available first responders and first aiders, stand by medical equipment, available medication supplies, available equipment and disaster relief materials, etc.) he has at his disposal and have an estimate how fast he can mobilize these resources.
- Obtain permission to act from the superior officer on site.
- Survey the site, the situation and the security risks.
- Survey the casualties.
- Allot the priorities for treatment and transport of the casualties.
- Provide the necessary assistance.
- Treat and transport the casualties to the assigned medical facilities.
- Submit a daily report to the concerned authorities and to his organization.
- Submit on completion of the mission a detailed final report to the concerned local authorities as well as his St. John Ambulance Headquarters or to his Red Cross Society along with his observations and suggestions.

Training and exercising helps the first aider to act swiftly, calmly and in the correct way. There is no substitute for proper training!

Having trained first aidsers available is a great asset at the time of disasters.

It is again underlined that there is no substitute for proper training. The Red Cross and St John Ambulance organize first aid and disaster management trainings.
**Emergency triage**

Triage is derived from the French *Trier*, meaning ‘to sort or sieve’. In medicine, this is the process of sorting casualties in order of priority for treatment and evacuation. Triage may take many different forms, and operates at a number of different levels. However, it aims to give the right injured the right care at the right time in the right place.

In certain circumstances, this may also mean ‘doing the most for the most’. Originally developed for use in military conflicts, triage is equally applicable to civilian disasters and in day-to-day emergency settings. Accurate triage allows correct identification of those casualties who need the most urgent intervention, as well as quickly and safely identifying those who can wait longer for treatment. The latter are the majority at a typical major incident. Triage may also be used to identify casualties who are so severely injured that they will not survive, or whose treatment will tie up resources that would be best used for other injured.

Triage is dynamic – as the person’s condition progresses, so his/her need for intervention alters, and the triage category will change.

The casualties are classified in different categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>RED (U1 or I)</th>
<th>YELLOW (U2 or II)</th>
<th>GREEN (U3 or III)</th>
<th>BLACK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survival rate</strong></td>
<td>Low if no urgent medical treatment. Better if medical</td>
<td>Good when timely medical treatment is provided.</td>
<td>High.</td>
<td>None.</td>
</tr>
<tr>
<td>Transport</td>
<td>Immediate transport when stabilized with medical team escort in medically equipped ambulance</td>
<td>Urgent transport (after RED) when stabilized under paramedic observation in equipped ambulance</td>
<td>Non-urgent transport (after RED, YELLOW) by ambulance or any available transport (taxi, car).</td>
<td>Post mortem transport to morgue</td>
</tr>
</tbody>
</table>

| All Walking Wounded       | RESPIRATIONS                     |                                                                                   |                                                                 |                                                                                      |
|                          | NO                               | Position Airway                                                                 | Respiration                                                   | Under 30/min. | Over 30/min. | IMMEDIATE |
|                          | YES                              |                                                                                   |                                                                 |                                                                 |                                                                                   |
|                          | NO respirations                  |                                                                                   |                                                                 | IMMEDIATE     |              |            |
|                          | DECEASED                         |                                                                                   |                                                                 | IMMEDIATE     |              |            |
|                          | RESPIRATIONS                     |                                                                                   |                                                                 | IMMEDIATE     |              |            |
|                          | PERIFICATION                     |                                                                                   |                                                                 | IMMEDIATE     | DELAYED      |            |
|                          | Radial Pulse Absent              |                                                                                   |                                                                 | IMMEDIATE     |              |            |
|                          | Control Bleeding                 |                                                                                   |                                                                 | IMMEDIATE     |              |            |
|                          | MENTAL STATUS                    |                                                                                   |                                                                 | IMMEDIATE     | DELAYED      |            |
|                          | CAN’T follow simple commands     |                                                                                   |                                                                 | IMMEDIATE     |              |            |
|                          | CAN follow simple commands       |                                                                                   |                                                                 | IMMEDIATE     |              |            |

Please note:

- There is a fifth category: the non-wounded (sometimes tagged ‘BLUE’). They are victims of the incident but seem not to be injured.
- Inside each category, i.e. the categories RED and YELLOW, all casualties of the same are again ‘categorized by urgency’. For example, casualties with difficult breathing in category YELLOW will be attended first before casualties in the same category with a better condition.
Triaging is a snapshot of the moment the victim has been evaluated. Victims of one category can move in between categories. For example, a person in category GREEN was walking around, but due to an internal bleeding his condition deteriorates and he becomes a category YELLOW, even RED, depending on his ‘new’ condition.

In a mass casualty incident assigning the triage category is done very quickly. The category ‘BLACK’ (deceased) may be assigned to all casualties that are not breathing without even a CPR attempt (as incident is so massive and there are too many casualties that have to be attended with very limited resources). When more help arrives, and if the situation allows, these victims might be re-evaluated.

In most mass casualty disasters, a zone for the RED (U1), YELLOW (U2) and GREEN (U3), the deceased (BLACK) and non-wounded (BLUE) will be assigned.

Always make sure somebody is also observing the casualties in the GREEN zone and the non-wounded (BLUE) as some signs and symptoms of an injury may only show over time.

Always follow the directives of the medical team on place or of the leader in charge. He assigns people to perform the triage, to assist in the different triage zones, or who will be responsible for managing the transport capacity, etc.