

FIRST AID IN COMMON EMERGENCY CONDITIONS

High Fever

High Fever also known as pyrexia is when a person's temperature in the mouth is over 37.7°C (99.9°F).

First Aid Measures for Treating the High Fever in Various age Groups

- **Infants and toddlers:**
- **0-3 months** having rectal temperature of 100.4°F (38°C) or higher. Refer to the doctor, even if the child does not have any other signs or symptoms. 3-6 months having rectal temperature up to 102°F (38.9°C). Encourage the child to rest and drink plenty of fluids. Medication is not needed. Refer to the doctor if the child seems unusually irritable, lethargic or uncomfortable.
- **Above 6- months and upto 3 years** having rectal temperature up to 102°F (38.9°C). Give the child acetaminophen. Read the label carefully for proper dosage. Refer to the doctor if the fever does not respond to the medication within one day.
- **Above 3 years and upto 17 years** having temperature up to 102°F (38.9°C) taken rectally for children up to 3 years of age or taken orally for children older than 3. Give the child ibuprofen. Encourage the child to rest and drink plenty of fluids. Refer to the doctor if the fever does not respond to the medication or lasts longer than one day doctor or if the fever is accompanied by a severe headache, stiff neck, shortness of breath, or other unusual signs or symptoms.
- **Do not give aspirin to an infant**
- **18 years and above** having oral temperature up to 102°F (38.9°C). Take acetaminophen or ibuprofen or aspirin. Read the label carefully for proper dosage and be careful not to take more than one medication containing acetaminophen, such as some cough and cold medicines. Consult the doctor if the fever does not respond to the medication, is consistently 103°F (39.4°C) or higher, or lasts longer than three days or if the fever is accompanied by a severe headache, stiff neck, shortness of breath, or other unusual signs or symptoms.

Low Blood Sugar

Low blood sugar known as hypoglycemia is the most common medical emergency which may be associated with either over dose of insulin intake or by inadequate caloric intake.

Signs and Symptoms

- Irritability
- Confusion
- Tremors
- Blurring of vision
- Coma
- Seizures
- Tachycardia
- Hypo tension
- Cold and clammy skin

It is difficult to differentiate whether patient has hypoglycemia or hyperglycemia. Therefore it is better and medically advisable to treat the patient initially as a case of hypoglycemia.

Whenever a patient has such problem, treat him/her as follows:

If patient is conscious:

Give liquids containing additional sugar such as tea with increased sugar or 4 to 6 ounces of fruit juice or 5 to 6 hard candies.

if patient is unconscious:

Place glucose powder under tongue.

Refer the patient immediately to nearest hospital.

Minor Injuries

a) First aid measures for taking care of cuts and wound:

If a patient with a minor cut or wound reports to you, proceed with the following steps:

- i) Ensure the safety of the patient.
- ii) Wash the hands well before touching the injured area of the patient.
- iii) If the wound is dirty wash it thoroughly with soap and water, then apply firm pressure for around 5 minutes. This will stop most bleeding.
- iv) Elevate the wound, above the level of the heart if possible. When bleeding has reduced clean the area with the antiseptic lotion and keep it dry.
- v) Use a sterile dressing to avoid touching the wound directly.
- vi) Administer a dose of tetanus toxoid injection.
- vii) Give an analgesic

viii) Give antibiotic such as amoxicillin 500 mg 6 hourly for 5 days if needed.

b) **First aid measures for taking care of sprains, strains, fractures and joint dislocations:**

The patient with these conditions is given immediate care commonly called **RICE**.

R: Rest the injured part

I: Ice the area

C: Compress with a bandage

E: Elevate the injured part to divert the blood flow away from the area

c) **First aid measures for taking care of burns**

➤ Run the burnt part under the cold water or apply an ice pack until pain subsides

➤ Clean and bandage the burned area to avoid the possibility of infection

d) **First aid measures for taking care of patient with insect stings and animal bites:**

Proceed with the following steps:

i) Apply pressure with a clean bandage or towel to stop bleeding.

ii) Clean and scrap the area to remove carefully the wings of the insect.

iii) Give immediately a dose of tetanus toxide.

iv) Apply antihistamine ointment to reduce itching, swelling and pain \

Fainting

signs and Symptoms:

The fainting is usually preceded with:

- ❖ Weakness, nausea or dizziness or light headedness followed by unconsciousness.
- ❖ Difficulty in speaking or weakness in limbs may occur due to obstructed blood flow through the blood vessels of the neck and brain.
- ❖ Irregular heartbeat.
- ❖ Flushing of the face

First Aid Treatment:

Whenever you will find a person fainting, immediately proceed as follows:

- i) Make the person to lie flat atleast for 15 minutes or to sit if lightheadedness is present.
- ii) Open the airway and assess for breathing.
- iii) Provided that the person is breathing, raise the person's legs above the level of his/her heart.
- iv) Loosen any restrictive clothing around the neck or the waist of the person.
- v) Consciousness is usually quickly regained with these first aid measures.
- vi) If the person remains unconscious, check for breathing and heart rate again and look for another cause.
- vii) Call an ambulance and refer the person quickly to hospital for immediate assessment and treatment.

Bleeding

First-Aid Treatment

- i) Control bleeding with direct pressure
 - ii) Cover wound with sterile dressing or clean cloth, diaper, or sanitary napkin.
 - iii) Place your gloved hand over dressing.
 - iv) Press firmly. Continue pressure until bleeding stops.
 - v) DO NOT remove dressing. If soaked through add more material and continue pressure.
 - vi) If no broken bone suspected, elevate wound higher than level of heart. DO NOT move limb if you think it is broken.
 - vii) Elevate area above the heart. If it does not appear broken.
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- If bleeding does not slow after 5 minutes of direct pressure, have victim lie down, continue direct pressure on wound, and apply pressure to pressure point between wound and heart.
 - For wounds on arms, press on brachial artery: Use your fingers to apply pressure to inner side of victim's upper arm, between elbow and shoulder, in groove between muscles.
 - For wounds on legs, press on femoral artery in groin: Use heel of hand to apply pressure at middle of crease where thigh meets groin.
 - Release pressure point as soon as bleeding stops.
 - Once bleeding is controlled, secure original dressings with bandage.
 - Observe for shock
 - DO NOT give food or drink.

Refer the patient to the hospital:

- a) If the patient has symptoms of shock
- b) If a cut is longer than about $\frac{1}{3}$ inch ($\frac{3}{4}$ centimeter), is on the face, appears deep, or has edges that separate
- c) If bleeding does not stop on its own or within several minutes after pressure is applied
- d) If there are symptoms of a nerve or tendon injury, such as loss of sensation, loss of movement, or numbness.
- e) If a scrape is deep or has dirt and particles that are difficult to remove.
- f) If there is a punctured wound, particularly if foreign material is in the wound.

Shock

Signs

Shock is a medical emergency in which the organs and tissues of the body are not receiving an adequate flow of blood

- Cool, clammy skin
- Pale or ashen skin
- Rapid pulse
- Rapid breathing
- Nausea or vomiting
- Enlarged pupils
- Weakness or fatigue
- Dizziness or fainting
- Changes in mental status or behavior, such as anxiousness or agitation

First Aid Treatment

- i) Lay the patient down on a stretcher or a bed. If neither is available lay him/her down on the ground on a sheet or blanket.
- ii) Raise the foot of the stretcher or bed about 25 cm of the ground.
- iii) Keep the patient warm by covering him/her with the blanket. If available, use a hot water bottle but be careful not to overheat him/her or burn.
- iv) Stop any bleeding.
- v) Give the patient hot tea with plenty of sugar if conscious.
- vi) Splint fractures and cover wounds before sending the patient to primary health centre.
- vii) Transfer the patient immediately to primary health centre or hospital.

Stroke

The sudden death of brain cells due to lack of oxygen, caused by blockage of blood flow or rupture of an artery to the brain

Signs and Symptoms

- A sudden feeling of weakness or numbness of the face, arm, or leg on one side of the body.
- Loss of vision or dimming (like a curtain falling) in one or both eyes.
- Loss of speech, difficulty in talking or understanding what others are saying.
- Sudden, severe headache with no known cause
- Keep patient lying down on his/her side.
- Keep the head high, turned on side to prevent aspiration of vomit
- Shift the patient quickly to hospital

Bites

Signs and symptoms

The following are the various important signs and symptoms :

- a) Sharp pain at the site of sting.
- b) Swelling around the affected area with the central reddened puncture point.
- c) Sting may be there in the wound.
- d) If the person is prone to allergies, the person may go into shock.

Treatment

i) Removal of sting

- a) If the sting has been left embedded in the skin hold tweezers as near to the skin as possible grasp the sting and remove it.
- b) Do not squeeze the poison sac because this will force the remaining poison into the skin.

ii) Local treatment

- a) Bee venom is acid and it should be neutralised by application of ammonia, soda.
- b) Wasp venom is alkaline and it should be neutralised by application of vinegar, or lemon juice.
- c) For jelly-fish stings, apply calamine lotion.
- d) Apply cold compress and spirit at the site of sting.
- e) Give Ibugesic tablet to relieve pain and swelling.

Give antihistamine (avil tablet) for allergy

Refer the patient immediately to the hospital, if patient does not recover or shows symptoms of shock.

Snake Bite

Signs and Symptoms

Local Signs and Symptoms such as:

- Bleeding, numbness at the site of bite.
- Swelling and burning pain at the site of bite

Signs of poisoning such as:

- Drowsiness.
- Dimness of vision.
- Difficulty in breathing and speech.
- Area becomes bluish purple after bite in twelve hours.
- Dribbling of saliva, paralysis.
- Convulsions, coma.

Treatment

- a) Lay the patient down.
 - b) Give him complete rest.
 - c) Calm and reassure him.
 - d) Do not make him to walk.
 - e) Tie immediately a piece of cloth or a tourniquet, tightly above the bite to prevent the venous blood return. It should be loosened for a few seconds at a regular interval of about 10 minutes.
 - f) Wash cuts gently with normal saline or antiseptic lotion if available otherwise with soapy water.
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- Apply a clean dressing.
 - Immobilise the affected limb.
 - Apply Ice packs on the wound.
 - **Shift the patient to hospital immediately**
 - Take the killed snake, if available for identification.

Dog Bite

Signs and Symptoms of Rabies

- ❖ Headache, nausea and vomiting.
- ❖ Agitation, confusion and hallucination.
- ❖ Difficulty in swallowing.
- ❖ Foaming at mouth.
- ❖ Respiratory paralysis.
- ❖ Patient will have difficulty in drinking water.

Treatment

a) If the dog is known to the patient and behaves normally:

- Wash the wound well with soap and flush with running water by syringe.
- Apply antiseptic lotion such as betadine.
- Bandage the wound with sterile dressing.
- Give a dose of tetanus toxoid.
- Give anti-inflammatory analgesic tablet such as paracetamol for pain.
- Give antibiotic such as capsule amoxicillin 500 mg 8 hourly for five days.
- Tell the patient to watch the dog for 10 days for the abnormal behaviour

If the dog no longer eats

- the dog no longer barks
- Shivers, becomes aggressive, barks at those it knows
- Has convulsions and saliva dribble from its mouth
- If the dog has died or was killed, send the carcass to the nearest veterinary dispensary for investigation

If the dog is not known to the patient

Refer the patient to doctor immediately for anti-rabies vaccine

Burns

First Aid Management of Burns

For thermal burns

Remove the person from the source and extinguish burning.

Drop the person to the ground

Log roll the person to extinguish the flames and cool the wound quickly.

Douse the burnt area with cool water within 10 minutes of injury. This may halt burn process in the tissues which may minimise burn depth and reduce pain considerably.

Drink plenty of water and donot run

Remove jewellery from the burned area as metal retains heat and may continue burning, it may be constricting when edema develops.

Do not attempt to remove adherent clothing.

In chemical burns

Brush off dry chemical and immediately rinse with a lot of clean cold water for 15–20 minutes.

For electric burns

- Turn off the source of electricity immediately. If it is not possible,
- Separate the person from electric current by using non-conductive equipments e.g. dry wool, rope.
- If underground or overhead electric wires are involved in the accident. Contact the electric utility company for assistance.
- When the person is disconnected from the source of electricity, quickly assess cardiopulmonary function and start CPR immediately if necessary.
- Transport the patient to the hospital immediately.

Choking

First aid treatment

a)First aid in adult

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i) When victim is standing

- * The first aider should stand behind the victim and wrap his arms around the waist,
- * And then grasp the fist with your other hand and
- * Place the thumb of the fist against the abdomen (belly) slightly above the navel and below the rib cage,
- * Press your fist into victim's abdomen with a quick upward thrust.
- * Repeat several times till the foreign body is expelled out of the windpipe.

ii) When victim is sitting

The first aider should stand behind the chair and performs the same manoeuvr as mentioned above.

iii) When victim is lying

- * Turn him supine,
- * Facing the victim, kneel astride the victim's legs,
- * With your hands one on the top of another, place the heel of your bottom hand over the abdomen between the naval and rib cage,
- * Press in the victims abdomen with a quick upward thrust,
- * Repeat several times,
- * Before the patient vomits, place him on his side,
- * And wipe to prevent asphyxia,
- * Following expulsion of foreign body give him artificial respiration if needed.

b) **First aid in infant**

- * Hold the infant upside down by legs and slap his back hard three or four times.
- * If not successful, lay the infant prone with his head hanging downwards over the knee and give sharp slaps between shoulders.

Seizures (Fits)

First aid treatment

1. Stay calm and reassure bystanders.
2. Loosen anything around the person's neck (clothing, ties, jewelry, etc.) that may impede [breathing](#).
3. Do not restrain the person – this may result in injury.
4. Do not put anything into the person's mouth, and do not try to hold the tongue or force the mouth open. This may also cause injury.
5. Clear the area around the person and remove any objects that could injure them (glasses, furniture, etc.).
6. Put something flat and soft under their head.
7. After the seizure, lay the person on their side to facilitate breathing and keep the [airway](#) open.
8. Do not leave a person alone after a seizure – they may be disoriented or confused.

Poisoning

First aid management of patient with poisoning

- 1) First of all inform the police.
- 2) Collect information from the patient or persons accompanying the patient.
- 3) Preserve any suspecting material like a bottle containing pills or liquid for information to the treating doctor.
- 4) If the patient has vomited, preserve the vomited material also which can give some clues about the type of poison ingested.
- 5) If the patient is conscious and there are:
 - 0 No burns on lips or mouth then induce vomiting by giving plenty of fluids or milk and by touching the fauces (inside the mouth). Preserve the vomited material for analysis.
 - 0 If the lips or mouth show signs of burning, cool them by giving water or milk to drink. Do not induce vomiting.
- 6) If the patient is unconscious but breathing normally, treat as for the shock
- 7) If breathing and heart beat stop begin resuscitation immediately
- 8) Shift to immediately to hospital.