

# FIRST AID TREATMENT OF BURN INJURIES

---

**A Handbook for Health Workers  
Working at Community Level**

---



ADD YOUR LOGO HERE

### WHAT IS A BURN?

A burn is an injury to someone's skin generally caused by heat, electricity or chemicals. Burn injuries can vary from being **minor and treatable at home**, to very **major needing emergency treatment** at a hospital, and can even lead to death in some severe cases.

**As a community health worker**, it is a valuable skill to be able to differentiate between minor and major burns. You will then know when a burn can be treated at your health post, or when it is more serious and needs to be sent to hospital.

Throughout this handbook, we go through some of the most important signs you should look for when presented with a burn patient, so you can plan appropriate treatment, and know whether the patient should go to hospital or not.

The first thing you need to assess with a burn patient is **where** they need to be treated.



- Can they be treated at home?
- Can they be treated at the health post?
- Should they go to a higher health facility for treatment?

There are many **factors** that will help you answer these questions, but some most of the most important things are:



- The size of the burn
- The type of burn
- The area of the body that is affected by the burn

**This booklet will explain how differences in these factors affect the treatment plan for the patient.**

## TYPES OF BURNS

There are five main causes of burns:



**Flame burns:** these include burns caused by fires, e.g. from firewood, kerosene heaters, burns from festival crackers and fire accidents at home.



**Scald burns:** these include burns caused by hot liquids, e.g. from boiling water, tea, coffee, milk and soup.



**Hot surface burns:** these include burns caused by coming in contact with hot objects e.g. with hot kitchen utensils or irons.



**Electric burns:** these include burns caused by electricity e.g. high-voltage electrical cords, electrical outlets and lightning.



**Chemical burns:** these are due to spillage of strong chemicals onto the skin. e.g. household toilet cleaning agents, pesticides, and chemicals in batteries; acid attacks are also known as chemical burns.

## HOW TO KNOW WHEN TO REFER THE PATIENT

*\*Referring' means transferring the patient to a higher health facility, preferably one that is specialist for burns treatment, as their needs cannot be dealt with at the health post.*

If a burn is severe, then the patient should be referred.

### How do you know if a burn is severe?

Remember

- a) the *longer* a person is exposed to the source of the burn, the worse the injury will be, and
- b) the *hotter* the surface/liquid/flame that comes into contact with the skin, the worse the injury will be.

Although it can be difficult to establish the severity of a burn, there are a few things you can look for to help you decide:

- **A minor burn** will generally create an area of redness on the injured skin, and will initially look wet. This type of burn is usually very painful. If this type of burn affects only a small part of the body, e.g. a patch on the forearm, it can be treated at the health post or at home. If this type of burn covers a large part of the body, e.g. an entire limb, or the majority of a hand, foot or face, the patient will need to be referred to a higher facility.
- **More serious burns** will appear dry, and may have blisters and swelling. These burns, although more serious, tend to be less painful for the patient. Most patients with this type of burn will need to be referred to a higher facility. Only those with a very small part of the body affected, for instance around the size of a coin, could be treated in the health post.
- **The most serious type of burn** will appear charred or white. They will be firm to touch and there will be no sensation of pain at the site of injury. This type of burn must be referred to a hospital.

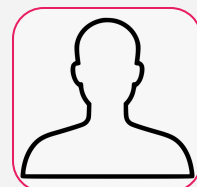
## Other factors to help you decide whether you should refer the patient

Remember, most minor burns can be treated in the health post, and most severe burns will need referring to a higher facility.

Here are a few more factors to help you decide whether or not your patient needs referring.

- ❖ If a minor burn is in a sensitive area, it is better to refer the patient, even if you are unsure whether it is severe enough to refer, as these areas can pose more treatment complications.

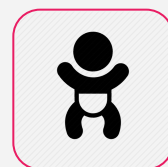
➤ **What are 'sensitive areas?':** head, neck, joints, hands, face, abdomen and genital organs.



- ❖ If the patient is very young or very old, it is best to refer the patient unless the injury is very minor.



- ❖ If the patient has no family, it may be best to refer them to ensure they receive all the care they need



- ❖ If the burn is minor but covers a lot of the body, consider referral.

➤ **What is 'a lot' of the body?:** For example, a whole limb, a significant area of the back and/or chest, most of a hand, most of a foot.

- ❖ If the patient has burned their face, or has signs of an inhalation injury (injury to the airway or lungs), they will need referral.

➤ **What are some of the signs of an inhalation injury?:** Coughing and phlegm, a scratchy throat, difficulty breathing, chest pain or tightness, headaches, stinging eyes.



- ❖ Always refer if the burn is chemical or electrical - regardless of the size of the burn.



- ❖ If the wound does not start healing in the first few days, or looks like it has become infected, the patient should be referred.

If the patient is in a critical condition and requires immediate life support, they should be referred to the nearest hospital.

If you are at the scene of the injury, first **remove the source of the burn** e.g. put out the fire, remove the hot implement. If a person is on fire, they should be advised to “**stop, drop and roll**” in order to put out the flames.

Then timely **first aid** should be carried out. Ensuring that there is minimal delay in administering first aid helps the patient's recovery, minimises risk of



complications, and can help reduce the potential for scarring and infection in the future. During all treatment, you should try and **remain as calm and reassuring as possible** to help keep the patient relaxed.

### First aid steps:

- With a flame/heat burn, *clean* water should be poured continuously on the injured area for roughly **20 minutes** to help cool the burn.
- With a chemical burn, it is important to wash the burn with running water to **remove/dilute the chemicals**. Make sure the water is dripping *off* the body, so that further irritation is not caused: e.g. if the chemical is on the head, do not let water drip into the eyes where it could cause more damage.



**If you do not need to refer the patient, and the burn injury can be managed at the health post, then the following steps will help you give the patient the best treatment:**

- Clean the wound with mild soap and clean water.
- Apply **two layers** of dressing. The first layer should be non-adhesive, such as **vaseline gauze dressing**, as this will help keep moisture in the wound and stop the dressing sticking to the skin. The second layer should be a **thick dressing made with water-absorbing cloth** to help absorb any liquid oozing from the wound.
- A new dressing is required roughly **every 3-4 days**, or when the current dressing is wet. However, an infected wound requires daily dressing changes. **Signs of infection** are: If the wound becomes much more painful, starts to smell bad, or pus starts to come from the burn site. The patient should be referred if the wound becomes infected, as they may need antibiotics from the hospital.



In certain communities, materials such as cow dung, toothpaste, soil etc. are used on burns. It is important **not** to do this as it can cause infection to the wound, complicating its treatment.



Make sure you wash your hands thoroughly and regularly before touching the patient. This will help stop the spread of germs, and reduce the chance of infection.



Administer painkillers such as paracetamol to help the patient manage any physical discomfort they are feeling. Being calm and reassuring can help them manage any psychological distress they are experiencing.



Apply clean (preferably running) water for **20 minutes** to cool the injury. After you have done this, carefully remove any jewellery from the affected area, and dress the wound with a two-layer clean dressing.



Sterilize dressing room and equipment

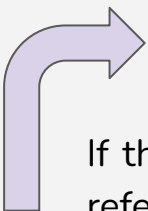


If the burn is on the hands or feet, make sure to dress the fingers/toes separately.

---



When treating children, it can be really useful to use toys or play as a way to distract them from any pain during treatment. Also, having parents in the room can be very helpful.



If the injury has not improved significantly after 2 weeks, the patient should be referred to a higher health facility,



Once the patient has been treated for the initial injury, **how can you give them the best care in the following weeks?**

Make sure to **include both the patient and their family** when planning and delivering treatment so they can understand and actively support each other, and ensure good treatment outcomes.

In the first few weeks when treating a patient at a health post, it is important to monitor the patients for **signs of infection**. If you suspect the injury has become infected, you must refer the patient as soon as possible.

### How to spot infection:

Raised temperature

Raised heart rate, even at rest

Pus at the site of injury

### Ensure good nutrition

From a nutritional point of view, it is important that after injury, the patient should eat a full and balanced diet where possible, as being malnourished can slow down the healing process. Additionally, burns can cause a patient to become dehydrated, therefore you should encourage the patient to drink fluids, especially Oral Rehydration Solution if it is available. Some patients may need a drip, if you have the facility.



### Scarring

When a patient has a major burn that takes more than three weeks to heal up, the chance of scarring is high. For major burns, the scarring can be prominent and raised.

It is important that family, friends and the community help the patient adjust to looking and feeling different after a serious burn. They may seem quiet and distant, especially if their scarring is visible or the burn has caused some level of disability. A caring and positive attitude from family and friends can make a big difference in helping the patient through the psychological distress that can be caused by a burn.

