

H.4 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.

H.4.1 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.

H.4.2 WHAT DO I DO?

H.4.2.1 PROVIDE FIRST AID



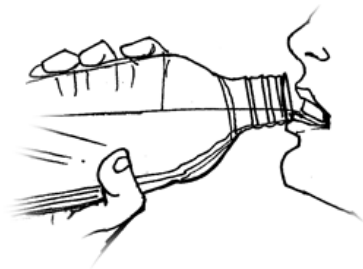
1. Help the casualty move to a cool place.



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



4. Ask the casualty to rest.



5. 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).
6. Keep observing the casualty's breathing and consciousness.
7. Refer the casualty to a healthcare facility.

H.4.2.1.1 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

H.4.2.1.2 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.

H.4.2.2 HYGIENE

Wash your hands after taking care of the patient. 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.

H.4.3 WHEN TO REFER TO A HEALTHCARE FACILITY?



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

H.5 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 C (106 F) 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.

H.5.1 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).

H.5.2 WHAT DO I DO?

H.5.2.1 PROVIDE FIRST AID

1. Help the casualty move to a cool place.
2. Check the casualty's breathing and consciousness.
3. Help the casualty to lie down with the legs slightly raised.



4. Cool the casualty by sponging him or showering him with cool water.



5. Make the casualty to rest.



6. 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).
7. Keep observing the casualty's breathing and consciousness.
8. Transport the casualty to the nearest healthcare facility or hospital.

H.5.2.1.1 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

H.5.2.1.2 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.

H.5.2.2 HYGIENE

Wash your hands after taking care of the patient. 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.

H.5.3 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.

H.6 FROSTBITES

Frostbite is damage to skin and tissues caused by exposure to freezing temperatures – typically any temperature below minus 0.55°C (31°F).

An inadequate blood circulation when the ambient temperature is low leads to frostbites. 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.

H.6.1 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.

H.6.2 WHAT DO I DO?

H.6.2.1 SAFETY FIRST

1. Make sure you are protected sufficiently against the cold, prior helping the other person

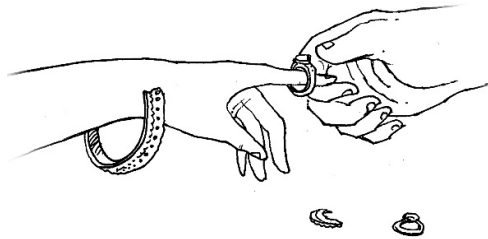
H.6.2.2 PROVIDE FIRST AID



2. If possible, move the victim to a warmer place.
3. 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.



4. Replace wet clothing with soft, dry clothing to stop further heat loss.



5. Gently remove gloves, rings, and other constrictions, such as boots.

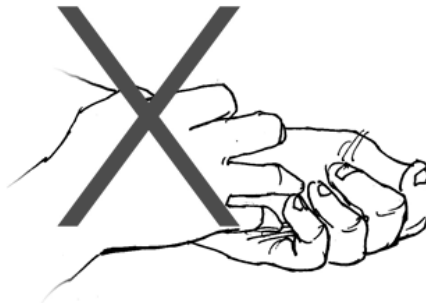


6. The affected areas need to be re-warmed.

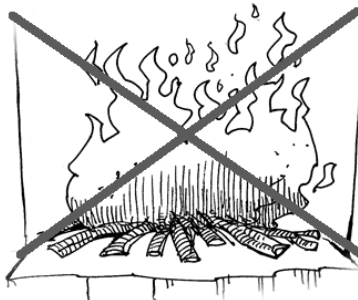
Do not try to do this until you are out of the cold. If the warming process is started and the frozen parts are re-exposed to the cold, it can cause further irreversible damage.



You can warm the affected part with your hands, in your lap, or in the person's armpits.



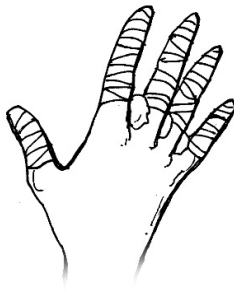
7. Do not rub the affected area as this can damage the skin and other tissues and do more harm than benefit.



8. Do not apply direct heat (such as from a fire or heater) as this can cause further injury.
9. 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.



10. Do not allow the person to smoke as this can affect blood circulation.



11. 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.
12. 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.
13. Refer the person with frostbites to a healthcare facility.

Transport the person to the nearest healthcare facility or hospital in case of advanced frostbites.

H.6.2.3 HYGIENE

Wash your hands after taking care of the patient. 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.

H.6.3 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.