

Care at the Place Where Injury Occurs

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Healthcare and community workers in mine-affected areas should be trained in emergency first aid to respond effectively to landmine and other traumatic injuries.

First aid training to respond to traumatic injury and severe bleeding increases the chance of mine victims living long enough to receive emergency medical care. First aid training should be conducted by qualified medical professionals who can uphold standards and provide follow-up training. Mine awareness educational materials can also provide basic instructions about first aid for injury and massive bleeding. Government officials and local communities should have a plan of action in place to assist and treat a mine victim and provide transport to medical care.

Adapted from: Guidelines for the Care and Rehabilitation of Survivors; ICBL Working Group on Victim Assistance, 1999

Immediate emergency care following a landmine injury must usually be provided by soldiers or civilians with minimal training in health care. Prevention and avoidance of injury is the first and most important message for families and communities. They need to consider the thinking of the person laying mines to cause damage and terror; this will help them to suspect the presence of a mine near gardens and paths, to avoid mine injury, and to mark suspect areas. They should recognise different types of mines and the injuries they cause and should receive instruction in first aid principles and practice so that retrieval and transfer of an injured person to further care is done well.

The information in this section, while primarily for rural health care workers, is also for persons with no health training.

EMERGENCY MEDICAL CARE

Immediate care may be provided by a friend, a family member, or a fellow soldier who is present or nearby when the sudden explosion of an unsuspected mine causes an injury.

The aims of immediate care of a landmine injury are:

- To keep the injured person alive. A rapid death will occur either through blockage of the air passage into the lungs (the “airway”) or uncontrolled bleeding. The injured person must be carried away from the dangerous site of injury (there may be other mines nearby) and quickly checked to make sure the airway is clear and any bleeding is controlled;
- To bring the injured person to a place in which other necessary treatment, including surgery, can be undertaken, and get the injured person there in the best possible physical state. Rapid transfer by the most comfortable means must be sought.

TEN STEPS FOR EMERGENCY CARE

1. Wait.

Don't rush in (there may be other mines laid in the same area). The injured person may be frightened, screaming, or shouting; nearby persons may be in a panic.

Try to remain calm, stop, and assess the situation. Try to keep others calm, too.

- Which way did the injured person walk to get to where the injury occurred?
- Is it safe to go to help him/her by taking the same path?
- In approaching a mine-injured person, walk in any tracks left by the patient or others, and avoid newly disturbed ground or grass.

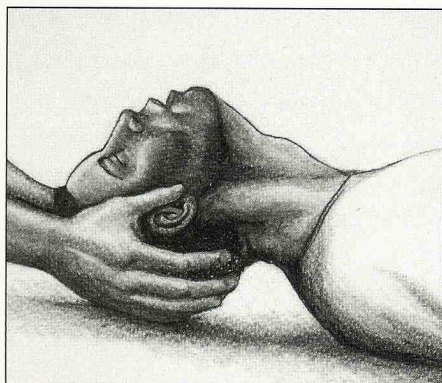


Figure 11. Positioning the head to maintain the airway.

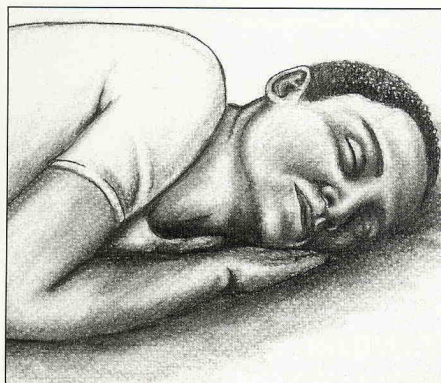


Figure 12. Nursing the injured person on one side so that vomit will not enter the lungs.

2. Remove the injured person.

Bring the injured person away to a safe area, even if you have to drag him; but look out for signs of other mines. There may be an excited and upset crowd. One person needs to coordinate action and take charge. A simple stretcher can be devised under such supervision from two poles and several shirts.

3. Keep airway clear.

If the breathing is noisy, position the head held back to maintain the airway. The injured person may be unconscious. Nurse on the side, so that if vomiting occurs the vomit will not enter the lungs. Keep the patient warm and dry, and protected from flies.

4. Stop bleeding.

Use a thick pad of rolled-up clothing held firmly over a bleeding wound by a bandage made from strips of clothing. This is called a pressure dressing. Do not use a tourniquet (a strip of cloth or rubber twisted tight with a stick to shut off the circulation to the limb). Only if local pressure does not stop severe continuing bleeding, and only as a last resort, use a tourniquet, because it can cause death of the whole limb.

5. Wash wounds.

Clean away obvious dirt from the wounds, flushing them with water tipped from a bucket or cup. Prevent further dirt getting into the wound by covering it with a clean cloth.

6. Keep wounds wet.

Do not let the wounds become dry. Dry flesh dies quickly. Keep a wet cloth over the wound once it has been washed.

7. Splint limb.

Splint the leg with a length of wood or rolled-up newspaper bandaged to it or strap it to the other (good) leg. Pad the splint if possible with towelling or clothing and do not tie it on too tightly.

8. Look.

Look for any other injury, and avoid injury to yourself. For example, watch for sharp bones or infected blood (remembering the danger of HIV infection from blood).



Figure 13a. A bleeding stump following landmine injury. Apply pressure to stop the bleeding.

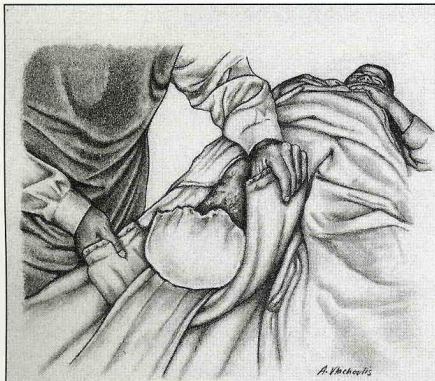


Figure 13b. A large pad over the bleeding surface held firmly in place across the bleeding surface.



Figure 13c. Other bandages hold the pad firmly in place.

9. Report.

Write a note about what has happened. This will go with the patient to the clinic or hospital. Include in the note:

- Where the injury took place (warning of other potential mine injuries from that place).
- When the injury took place (helps tell how long a part may have had no blood supply).
- What body parts are known to have been injured (the patient may describe pain, etc., now, but be unable to speak later on).
- Whether there has been any change in the patient's condition since the injury occurred.
- What you have done to assist the patient (for example, applied a bandage or a splint, gave medicines).

An example of a report for the clinic:

"To the doctor at Pindo Health Centre:

This is Jacob Tembu, a farmer from Bundi settlement. He stepped on a mine on a track leading to Dingagu. Jacob was injured this morning, Tuesday, September 19 at around 7am. His right foot was blown off and his left leg was bleeding from wounds to the lower leg and the foot. There was also a small wound on the right arm. We brought him to a house near the road, and made pressure bandages for both legs from some clean sheets and old shirts. He has been able to speak to us since the explosion, but says he feels weak and tired. Blood is soaking into the bandages, and we applied a tourniquet to the right thigh at 10am. We told his brother who is with him to loosen the tourniquet every 15 minutes for 2 minutes. His mother gave him some brandy to drink, but we have no other medicines. We have not had any other reports of mines in that place, and maybe this was laid only recently. We have put warning signs on that track."

Written by Peter Korimbo, schoolteacher at Bundi, at 10.30 am

10. Transport.

Arrange immediate transport by the fastest suitable way to the nearest health centre or hospital.

SOME OTHER MATTERS TO NOTE

Blockage of the airway from a mine explosion that injures the face will need special attention. Do not insert fingers in the throat because that can cause vomiting and block the airway further. Open the airway only by lifting the head back and stretching the neck.

1. If there is a wound in the chest that makes a sucking sound with breathing, place a pad over the wound and bind it to stop air from entering the chest.
2. If bowel is poking out through a wound in the abdomen, do not try to push it back; cover it with a wet cloth and keep the cloth wet to stop drying of the wound. A plastic sheet (for example a flat plastic bag) placed over the damp cloth and tied on with a bandage will keep flies away and prevent further drying or dirt getting in.
3. A shocked patient is thirsty, but because he may need to be given an anaesthetic soon, do not offer any food or drink.
4. A landmine-injured person may be too badly injured to report pain. He may be quiet, passive and shocked, not crying out in pain, but needing drugs for pain as soon as possible. To avoid additional pain, move injured parts of the body or the whole patient as little as possible.
5. Promptness in getting to surgical aid is a major factor improving survival. If an injury can receive skilled treatment within 6 hours, amputation with immediate closure of the wound gives a good result. A delay of more than 6 hours means that the wound must be left open, and so healing and rehabilitation are prolonged.

MANAGING BLEEDING

Arteries and veins will be damaged by blast and mine fragments, and will bleed

- Inside where you cannot see them — into the abdomen or chest, and
- Outside — to the surface of the body.

Note that the colour of the blood and the type of flow indicate whether the wound is to an artery or a vein:

- Bleeding from an Artery — Bright red blood, pumping out;
- Bleeding from a Vein — Darker, bluish blood, flowing steadily.

The amount of bleeding will depend on the size and the number of blood vessels which have been damaged.

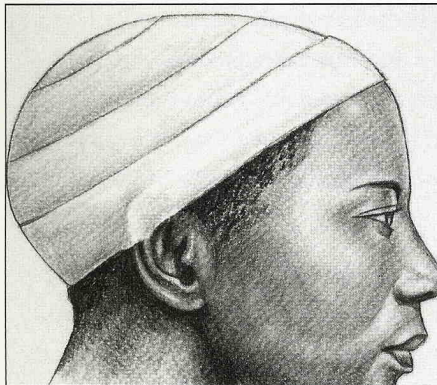


Figure 14. A bandage around the head; avoiding the jaw and neck.

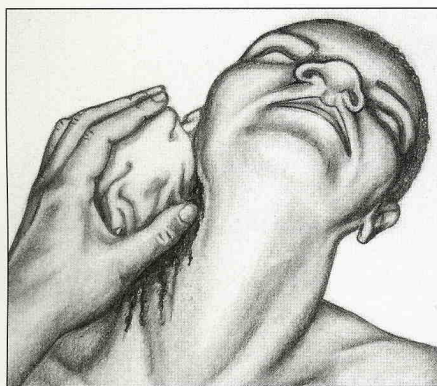


Figure 15. Diagram of holding a pressure pad to the neck.

DO NOT USE A TOURNIQUET!

Tourniquets are potentially dangerous as they can cause additional damage to the limb and should therefore not be used.

Controlling Bleeding

External bleeding can be controlled by applying firm pressure onto the damaged vessel, or over the wound. Roll up an article of clothing such as a shirt, place it on the wound, and bandage it firmly into place using a bandage or strips of materials or clothing. This is a pressure dressing. A pressure dressing can be used on any wound but note these special areas:

Scalp

Bandage can be firm but should never go around the jaw or the neck, because that can stop the person breathing properly.

Face

Make sure that the head and neck can be kept extended and the patient rolled onto his side. This is to keep open the airway for breathing and to prevent blood from injuries inside the mouth or nose being swallowed or running down into the lungs and causing choking.

Neck

Do not tighten a pressure bandage around the neck. That may stop blood from getting to the brain. It may be best to hold a pad on the bleeding place by hand.

Bleeding from Injured Limbs – 2 Situations

1. Complete traumatic amputation, where the limb (usually the foot and lower leg) has been completely blown off by the landmine. A pressure dressing should be applied to the end or stump of the limb, and the limb supported above the level of the body – as this helps to decrease bleeding.
2. Partial traumatic amputation, where the limb is severely damaged but still attached by some muscle/skin. Here the limb should be placed straight in a normal position before the pressure dressing is applied. A splint should then be applied after the pressure dressing is in place and the limb is then kept lifted high up.

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