

## CHAPTER 5

### BLEEDING AND SHOCK

#### BLEEDING

1. There are three main types of bleeding:
  - a. **ARTERIAL BLEEDING:** This comes from a severed artery, and can be recognized by the blood being bright red and spurting from the wound.
  - b. **VENOUS BLEEDING:** This is where a vein is severed, and the blood is dark red and flows from the wound.
  - c. **CAPILLARY BLEEDING:** The blood is light red and oozes from a cut or scratch.
2. The principle of controlling bleeding is to restrict the flow of blood to the wound, thereby encouraging the blood to clot. This is done in two ways, by **PRESSURE** and **ELEVATION**.
3. There are two kinds of pressure, **DIRECT** and **INDIRECT**. Direct pressure must be used first, and indirect pressure is to be used only if direct pressure fails, or is difficult to apply.

#### **Direct Pressure**

4. Using a pad, field dressing or clean handkerchief, apply direct pressure on the site of the wound, at the same time lifting up the limb (if it is an arm or leg). Pressure has to be maintained for 5 to 15 minutes, because it takes this long to halt the flow of blood.
5. Once the bleeding has stopped, tie the dressing firmly in place ensuring that it is not tied too tightly. If it is too tight, finger or toe nails below the bandage will go blue, or the casualty will complain of 'pins and needles' in the affected area. (Fig 7).
6. If there is a foreign object, such as a piece of glass, metal or wood, embedded in a wound, **DO NOT** remove it. It may be plugging the wound and helping to control the bleeding. You may carefully remove any small foreign bodies from the surface of the wound, if they can be easily washed or wiped off. If not, apply direct pressure by squeezing the edges of the wound together around the object. Gently place a piece of gauze over the object and put a pad of clean material around the wound. If possible, build it up until it is high enough to prevent direct pressure on the object. Apply a dressing, and get medical aid.

#### **Indirect Pressure**

7. If bleeding cannot be controlled by direct pressure, or it is impossible to apply direct pressure successfully (for example, if there are severe lacerations—cuts caused by barbed wire, *etc*), you may be able to control the bleeding by indirect pressure at the appropriate pressure point.

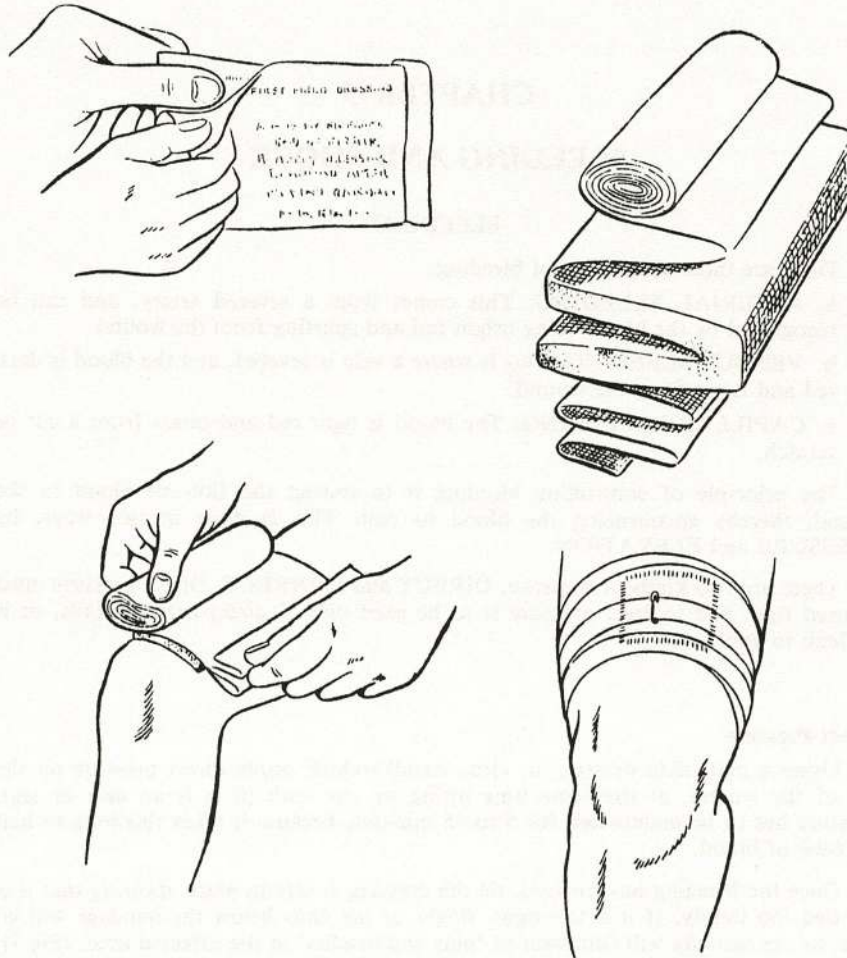


Fig 7 Applying a Standard Dressing to a Wound

**Pressure Points**

8. A pressure point is a place where you can compress an artery against an underlying bone to flatten it and thus prevent the flow of blood beyond that point.

9. However, since it cuts off the supply of blood to the tissues of the entire limb, THIS METHOD SHOULD ONLY BE USED AS A LAST RESORT, AND MUST NOT BE APPLIED FOR LONGER THAN 15 MINUTES.

10. There are two pressure points used for control severe bleeding:

- a. *The Brachial Artery:* This runs along the inner side of the upper arm between the muscles, roughly along the seam of the sleeve. To apply pressure, pass your fingers under the casualty's arm and slide them between the muscles. Press upwards and inwards, pushing the artery against the bone. (Fig 1).

b. *The Femoral Artery*: This passes along the lower limb at a point corresponding to the centre of the fold of the groin, and runs along the inside of the thigh. To apply pressure, lay the casualty down with his injured knee bent, locate the artery in the groin, and press it against the rim of the pelvis (Fig 1) with your fist or the heel of your hand.

#### Summary of Control of bleeding

11. a. Sit or lay the casualty down.
- b. Apply direct pressure to the site of the wound.
- c. Elevate, if an arm or leg.
- d. Apply a clean dressing, and do not remove it if it becomes blood-soaked.
- e. If necessary, get medical aid.

#### Bleeding from Special Areas

12. a. *Scalp*: Control the bleeding by using direct pressure. Apply a dressing or pad of material larger than the wound, and bandage it firmly in place. If there is a foreign body in the wound, do not apply heavy direct pressure. If your casualty is unconscious, lay him down with his head and shoulders slightly raised.
- b. *Mouth (Tongue or Cheek)*: Sit your casualty down with his head forward and tilted towards the injured side. Place a clean dressing on the wound and apply direct pressure by squeezing the edges of the wound together between your thumb and forefingers. Tell your casualty to spit out any blood in his mouth—if blood is swallowed, he may be sick. If bleeding does not stop after 10–20 minutes, or the wound is large and gaping, get him to medical aid. Do not wash out his mouth once bleeding has stopped, this will disturb the blood clot and start the wound bleeding again.
- c. *Tooth Socket*: Sit your casualty down with his head tilted toward the injury, this allows the blood to drain from the mouth. Place a thick pad of gauze or a clean cloth ON, but not INTO, the bleeding socket and get him to bite on it. The pad must be thick enough to prevent the teeth meeting when he bites on it. If after 10–20 minutes the bleeding has not stopped, change the pad and try again for another 10 minutes. If it still has not stopped, get him to medical aid.
- d. *Nose Bleed*: Sit your casualty down with his head well forward. Loosen any tight clothing around the neck and chest. Advise him to breathe through his mouth and to pinch the soft part of his nose firmly between his thumb and forefingers, for at least 10 minutes. If the bleeding does not stop, repeat for a further 10 minutes, or as necessary. Do not pack or plug the nose. When the bleeding stops, tell the casualty to try not to sneeze or to blow his nose. If bleeding starts again, or continues after 30 minutes, get him to medical aid.

#### SHOCK

13. Shock is a condition of general bodily weakness resulting from an injury or illness which has reduced the volume of blood or fluid in the body. It can vary from fainting to complete collapse. Shock may indicate internal and/or external injuries.
14. Common causes of shock are through blood/fluid loss, resulting from internal or external bleeding. Loss of plasma through serious burns and loss of body fluids through sickness or diarrhoea also cause shock. Extreme pain or fear can cause a similar state.

## FIRST AID, CHAP 5

### How to Recognize Shock

15. a. The casualty will feel weak, faint and giddy, and will be anxious and restless.
- b. He may feel sick, and he may vomit.
- c. He may feel thirsty.
- d. His skin becomes pale, cold and clammy, and he may be sweating.
- e. His breathing may be shallow and fast, and he might be yawning and sighing.
- f. His pulse rate becomes faster at first, but becomes weaker as his blood volume drops.
- g. He may become unconscious.

### Treatment

16. The treatment of shock is designed to ensure an adequate blood supply to the heart, lungs and brain. To do this:
  - a. Immediately reassure and comfort your casualty.
  - b. If his condition allows, lay him down on his back and, if possible, on a blanket. Keep his head low and turned on one side. (This will maintain a blood supply to the brain and lessen the chance of him vomiting.) Raise his legs, unless you suspect that he may have leg fractures.
  - c. Keep him warm, and cover him with a coat or blanket.
  - d. Loosen any tight clothing.
  - e. Search for, and if possible, treat, the cause of the shock.
  - f. If he complains of thirst, you may moisten his lips with water.
  - g. Get to medical aid.
17. DO NOT:
  - a. Give anything by mouth—food, water, alcohol or cigarettes.
  - b. Use hot water bottles or cover him with too many blankets or coats.
  - c. Move him unnecessarily,—this will increase the shock.

This file was downloaded  
from the RTFM Library.

Link: [www.scottbouch.com/rtfm](http://www.scottbouch.com/rtfm)

Please see site for usage terms,  
and more aircraft documents.

