



## AUSTRALIAN RESUSCITATION COUNCIL

### **GUIDELINE 9.1.1**

#### **PRINCIPLES FOR THE CONTROL OF BLEEDING FOR FIRST AIDERS**

##### **EXTERNAL BLEEDING**

Usually external bleeding can be controlled by the application of appropriate pressure on or near the wound to stop further bleeding until help arrives. The main aim is to reduce blood loss from the victim.

The use of direct, sustained pressure is usually the fastest, easiest and most effective way to stop bleeding.<sup>1,2,3,4,5</sup> [Class A; LOE II, Class A; LOE III-3] However, in some circumstances, indirect pressure may be used. [Class A; LOE Expert Consensus Opinion]

If there is an obvious embedded object, use indirect pressure. [Class A; LOE Expert Consensus Opinion]

##### **MANAGEMENT**

- Use Standard Precautions if available.
- Attempt to stop the bleeding by applying sustained direct or indirect pressure on or near the wound as appropriate.
- Call for an ambulance (Dial Triple Zero - 000).

##### **DIRECT PRESSURE METHOD**

Where the bleeding point is identified control bleeding by applying pressure as follows:

- apply firm, direct pressure sufficient to stop the bleeding.
- apply pressure using hands or a pad ensuring that sufficient pressure is maintained and that the pressure remains over the wound. If bleeding continues, apply another pad and a tighter dressing over the wound.

To assist in controlling bleeding, where possible:

- elevate the bleeding part ;
- restrict movement;
- immobilise the part;
- advise the victim to remain at total rest.

If major bleeding continues it may be necessary to remove the pad(s) to ensure that a specific bleeding point has not been missed. The aim is to press over a small area and thus achieve greater pressure over the bleeding point. For this reason an unsuccessful pressure dressing may be removed to allow a more direct pressure pad and dressing on the bleeding location.

## **INDIRECT PRESSURE METHODS**

### **Embedded Objects**

- Do not remove the embedded object because it may be plugging the wound and restricting bleeding.
- Place padding around or above and below the object and apply pressure over the pads.

## **TOURNIQUET**

**As a last resort and only when other methods of controlling bleeding have failed**, a tourniquet may be applied to a limb to control life-threatening bleeding e.g., traumatic amputation of a limb or major injuries with massive blood loss<sup>6</sup>. [Class B; LOE Expert Consensus Opinion]

A wide bandage (of at least 5cm) can be used as a tourniquet **high** above the bleeding point. The bandage should be **tight** enough to stop all circulation to the injured limb and control the bleeding. The time of application must be noted and passed on to emergency personnel. Once applied a tourniquet should not be removed until the victim receives specialist care.

A tourniquet **should not** be applied over a joint or wound, and must not be covered up by any bandage or clothing.

## **INTERNAL BLEEDING**

### **RECOGNITION**

Internal bleeding may be difficult to recognise, but should always be suspected where there are symptoms and signs of shock (see Australian Resuscitation Council Guideline 9.2.3).

Other symptoms and signs may include:

- pain, tenderness or swelling over or around the affected area
- the appearance of blood from a body opening, e.g.,
  - bright red and/or frothy blood coughed up from the lungs
  - vomited blood which may be bright red or dark brown "coffee grounds"
  - blood-stained urine
  - vaginal bleeding
  - rectal bleeding which may be bright red or black and "tarry".

## **MANAGEMENT**

Internal bleeding may be life-threatening and requires urgent treatment in hospital. Call an Ambulance (Dial Triple Zero - 000).

## **NOSE BLEED (Epistaxis)**

For a nose bleed:

- pressure must be applied over the soft part of the nostrils, **below** the bridge of the nose
- the victim's should lean with the head forward to avoid blood flowing down the throat
- the victim should remain seated at total rest for at least 10 minutes. On a hot day or after exercise, it might be necessary to maintain pressure for at least 20 minutes.
- if bleeding continues for more than 20 minutes seek medical assistance.

## **MANAGEMENT OF ALL BLEEDING**

Apply the following measures until ambulance arrival:

- reassure the victim
- assist victim into position of comfort
- monitor the signs of life at frequent intervals
- administer oxygen if available
- **Do Not** give anything orally, including medications and/or alcohol

## **LEVEL OF EVIDENCE**

Direct Pressure: LOE II

Indirect Pressure: Expert Consensus Opinion

Tourniquet: Expert Consensus Opinion

## **CLASS OF RECOMMENDATION**

Direct Pressure: Class A - Recommended

Indirect Pressure: Class A – Recommended

Tourniquet: Class B - Acceptable

## **REFERENCE**

1. First Aid Science Advisory Board. Part 10: First Aid. Circulation, 2005.**112**:115-125.
2. Walker S.B., Cleary S., Higgins M. Comparison of the FemoStop device and manual pressure in reducing groin puncture site complications following coronary angioplasty and coronary stent placement. International Journal of Nursing Practice. Dec. 2001. **7**(6):366-75.
3. Simon A., Bumgarner B., Clark K., Israel S. Manual versus mechanical compression for femoral artery hemostasis after cardiac catheterization. American Journal of Critical Care. Jul 1998. **7**(4):308-13.
4. Naimer S.A., Chemla F. Elastic adhesive dressing treatment of bleeding wounds in trauma victims. American Journal of Emergency Medicine. 2000.**18**:816-819.
5. Guidelines 2000 for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care.
6. Advanced Trauma Life Support, 8<sup>th</sup> Edition, The Evidence for Change. The Journal of Trauma, Injury, Infection and Critical Care. 2008. **64**:1638-1650.

## **FURTHER READING**

ARC Guideline 9.2.3 Shock

ARC Guideline 9.1.4 Head Injury

ARC Guideline 10.4 The Use of Oxygen in Emergencies