

# How to Stop Bleeding without a Hospital

Charles Bruen, MD  
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- A can of soda is an easy way to quantify blood loss — 335 mL. Three cans of soda is when to start worrying.
- Tourniquets save lives and do not cause limb ischemia. The aorta is clamped for many hours in cardiac surgery. Data from the battlefield showed that in >800 cases where tourniquets were applied, there were 3 adverse outcomes (loss of sensation in the distal fingertips). When applying a tourniquet, adequate pain control is absolutely required.
- Hemorrhage control bandages (Israeli, Celox Z-fold, QuickClot) have an imbedded hemostatic agent that can be applied to a bleeding wound to promote clotting. They can achieve significant pressure but not enough to stop arterial flow.
- Hemostatic powders (Celox granules, QuickClot) can be used for abdominal wounds but may draw the ire of surgeons because they cause an exothermic reaction that burns surrounding tissue.
- Reducing and splinting extremity fractures, and binding pelvic fractures can reduce hemorrhage.
- Avoid the lethal triad of trauma — acidosis, hypothermia, and coagulopathy. Keep the patient warm, and fluid resuscitate them with 0.9% saline or preferably blood products if available.
- Tranexamic acid (TXA) is useful in preventing clot breakdown. 60% of trauma pts have a major lytic disorder. TXA is associated with a 1.5% reduction in 28-day all-cause mortality in adult trauma patients with signs of bleeding.
- Transport the patients to the nearest trauma center expeditiously.