## Damage Control Surgery



- The concept of damage control surgery (DCS) was developed because severely traumatized patients with impaired physiology have poor outcomes after lengthy and complex surgical reconstructive procedures performed shortly after their trauma.
- Prolonged procedures result in additional trauma and further immune and physiological derangement; the 'triad of death', a cycle of acidosis, coagulopathy and hypothermia, may develop and result in multiorgan failure and death.





- The minimum amount of surgery needed to stabilise the patient's condition may be the safest course until the physiological derangement can be corrected.
- The decision whether damage control surgery is the appropriate course should be made early and allows the whole surgical and anaesthetic team to work together to limit the time in surgery and the earliest possible admission of the patient to the intensive care unit.





- Damage control surgery is restricted to only two goals:
  - stopping any active surgical bleeding;
  - controlling any contamination.
- Once these goals have been achieved then the operation is suspended and the abdomen temporarily closed.
- The patient's resuscitation then continues in the intensive care unit, where other therapeutic interventions can take place.
- Once the physiology has been corrected, the patient warmed and the coagulopathy corrected, the patient is returned to the operating theatre for any definitive surgery.



## The Stages of Damage Control Surgery

- Patient selection
- II. Control of haemorrhage and control of contamination
- III. Resuscitation continued in the intensive care unit
- IV. Definitive surgery
- V. Abdominal closure





## Early Total Care Vs Damage Control Surgery

- Early total care describes the definitive management of a patient's injuries within 36 hours of injury after a period of initial resuscitation.
- Damage control surgery describes simultaneous resuscitation with early rapid life- and limb-saving surgery.
- Time-consuming definitive surgery is deferred until the patient's physiological status allows.
- An early total care approach can be changed to a damage control approach if the patient's physiology deteriorates during definitive surgery.

