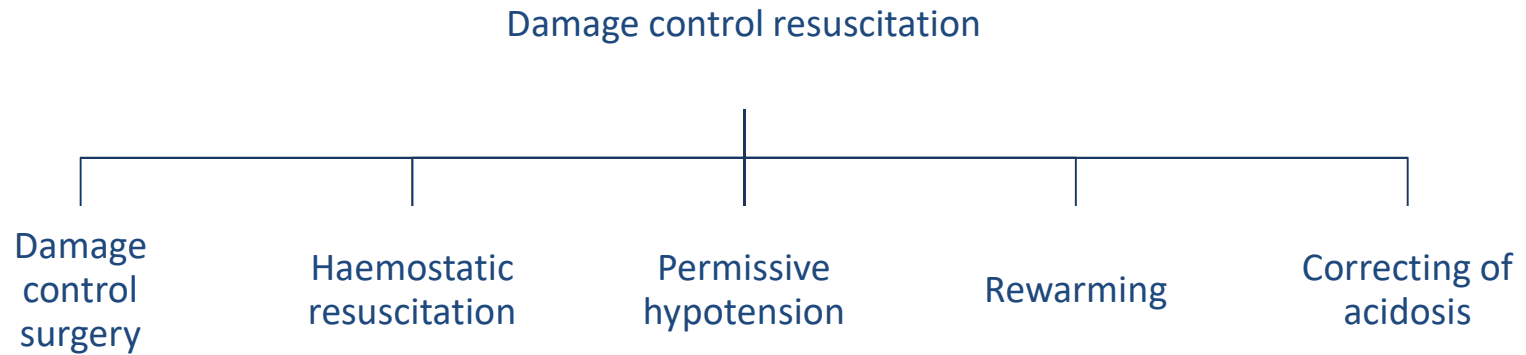




# Reconstruction options after damage control surgery

Riaan Pretorius

# Damage control resuscitation



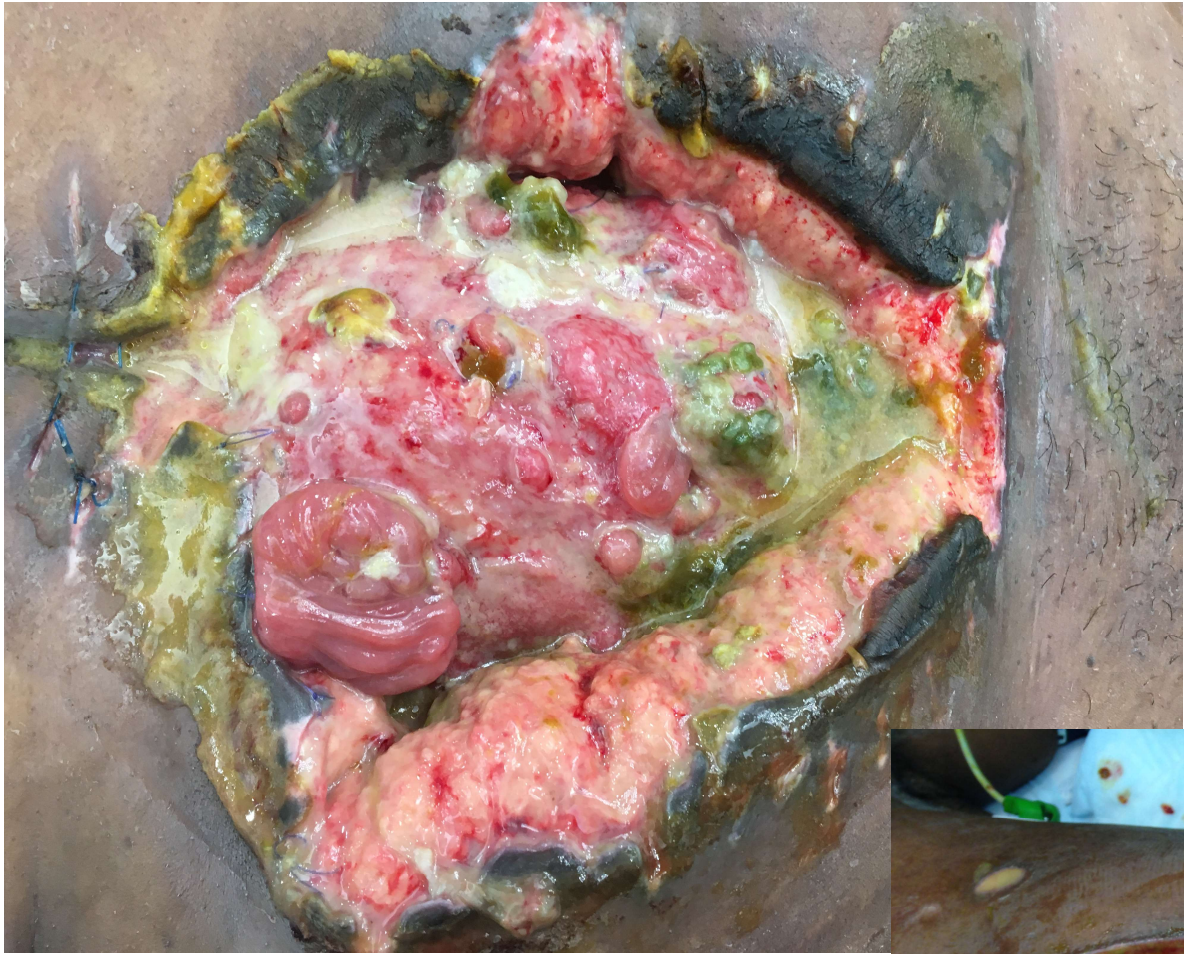
# Goal

- Decrease physiological insult, mortality, blood transfusion
- 2.5 fold 30 day mortality
- Increased morbidity

*Cotton BA, Reddy NBS, Hatch QM. Damage control resuscitation is associated with a reduction in resuscitation volumes and improvement in survival in 390 damage control laparotomies. Ann Surg. 2011;254(4)*

# **DAMAGE CONTROL**

Art and Destruction Since 1950



# Damage control

- Identification
- Damage control surgery
- Resuscitation in ICU
- Definitive surgery
- **Abdominal closure**

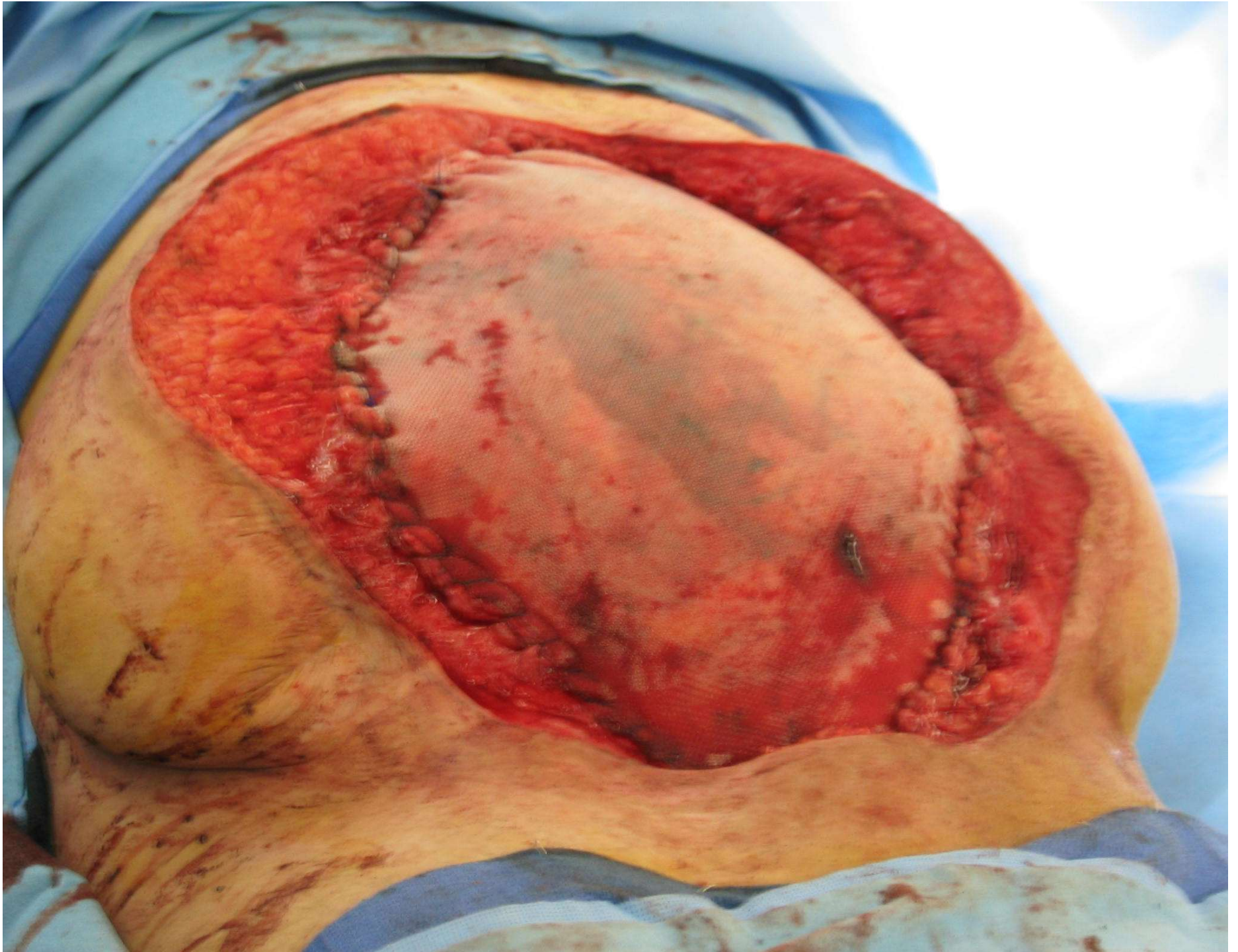


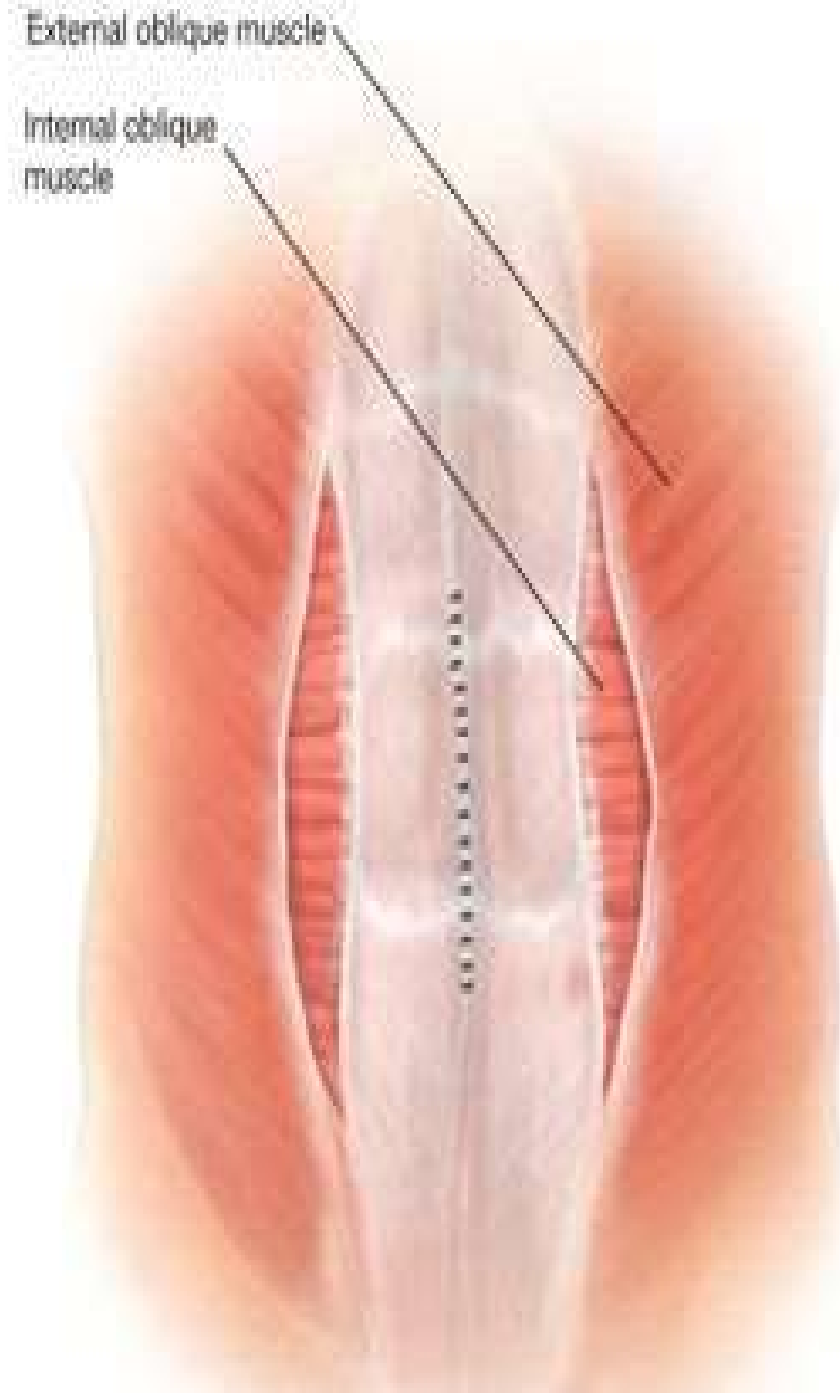
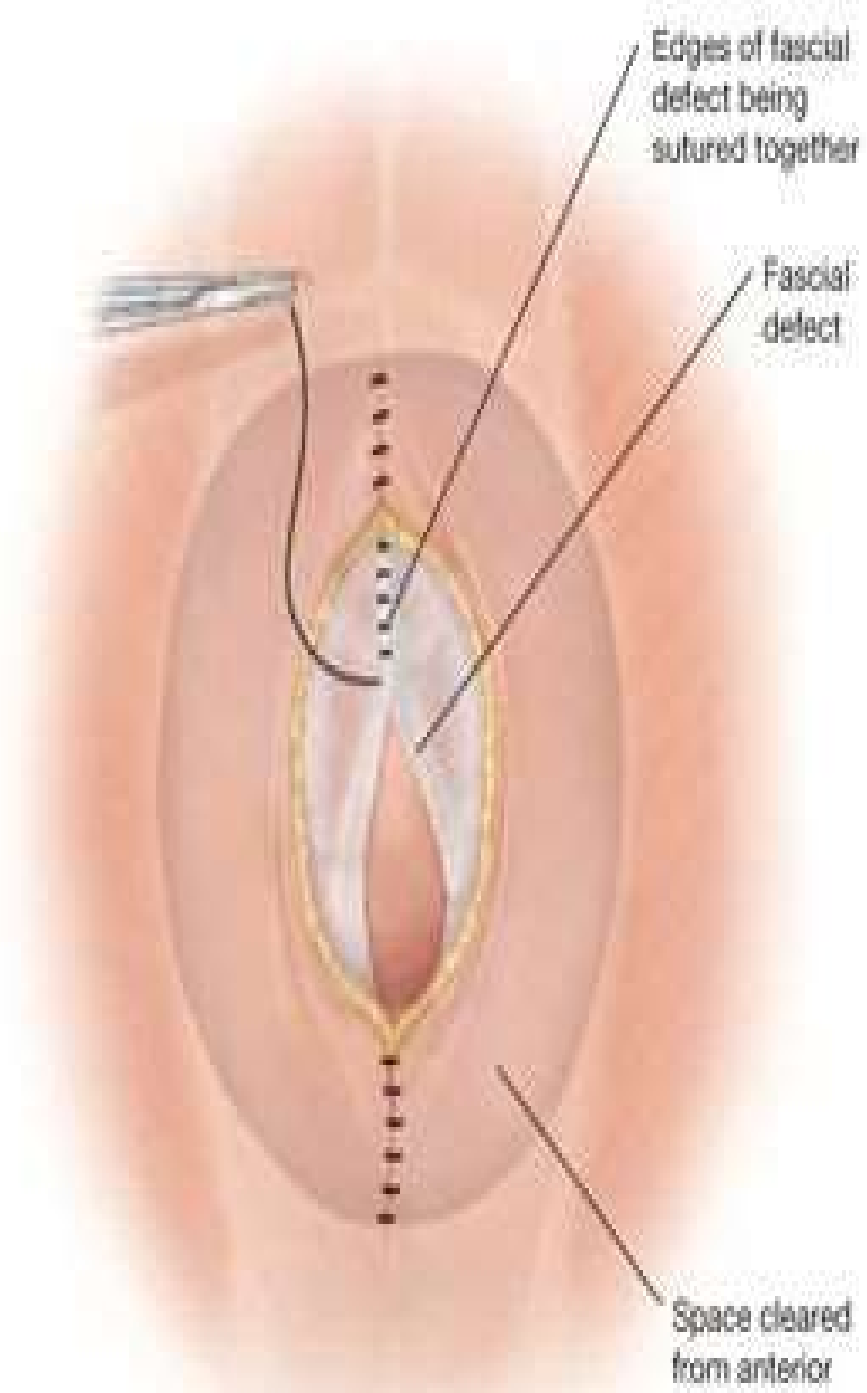
# Abdominal closure

- Primary closure
- ACS





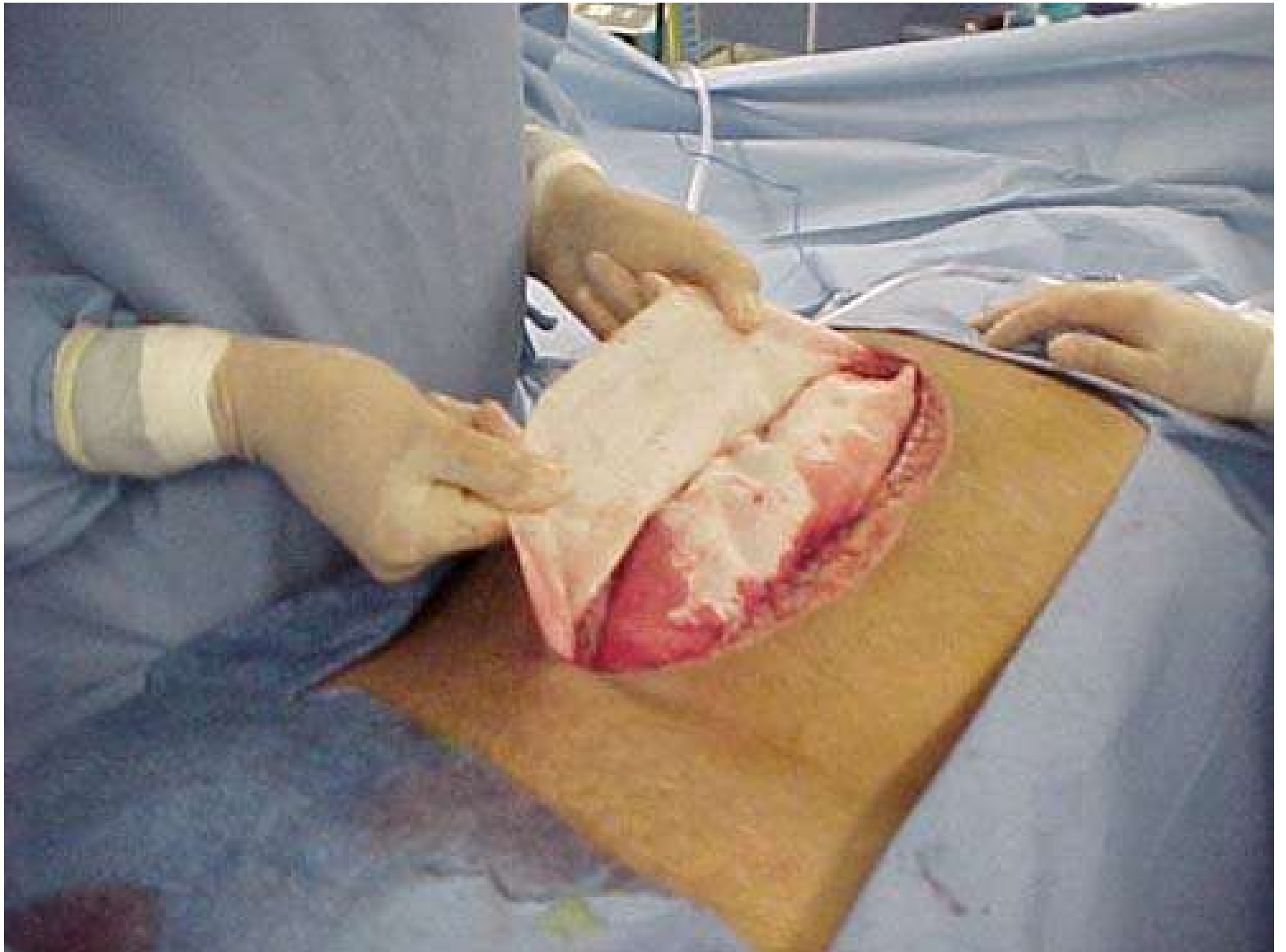






# Whittman Patch



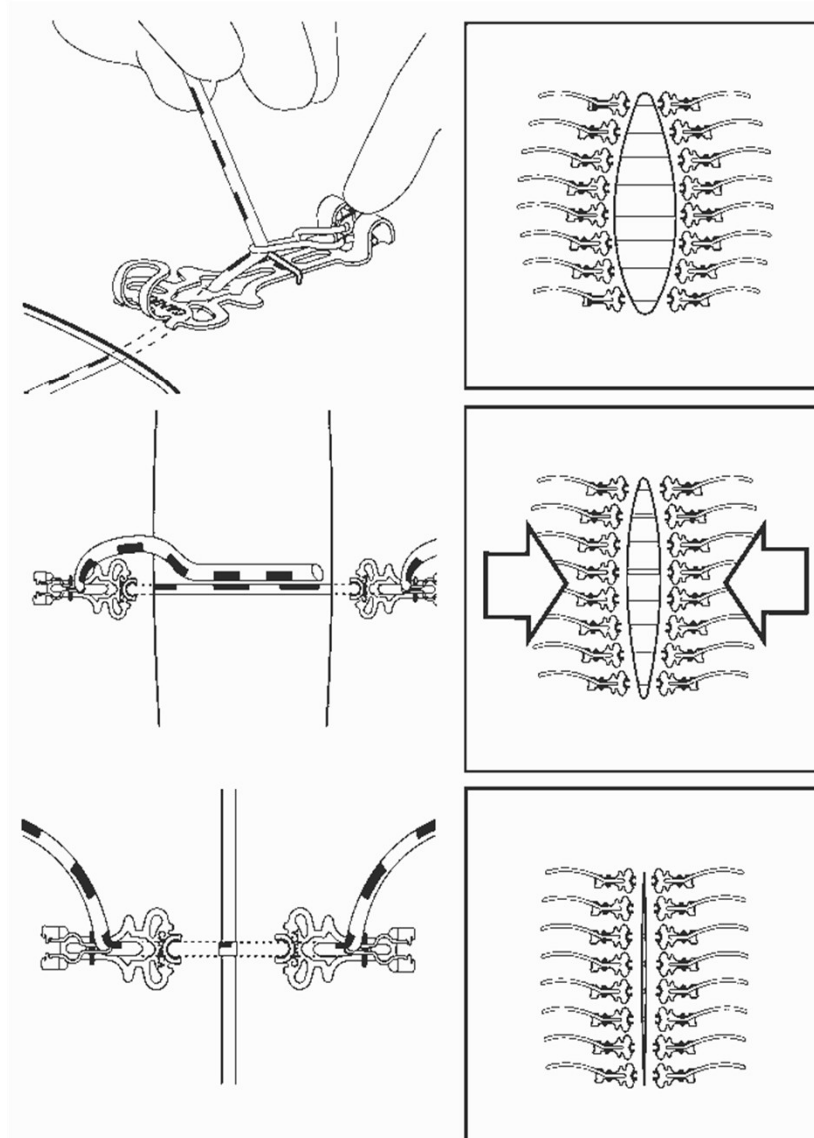




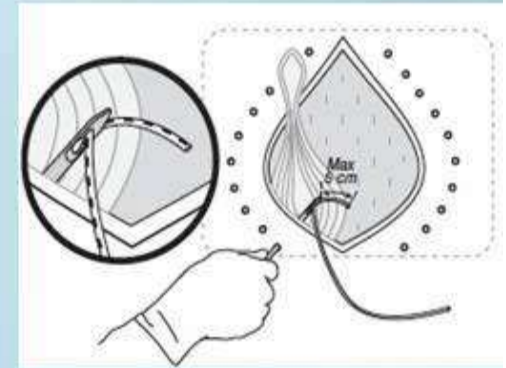
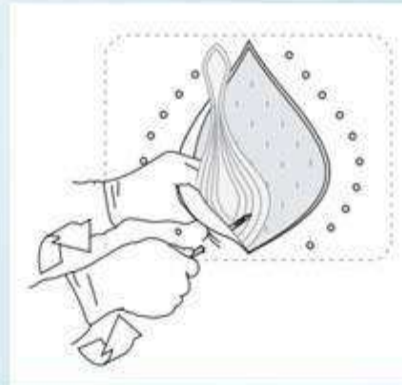
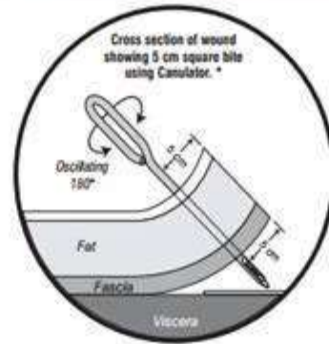
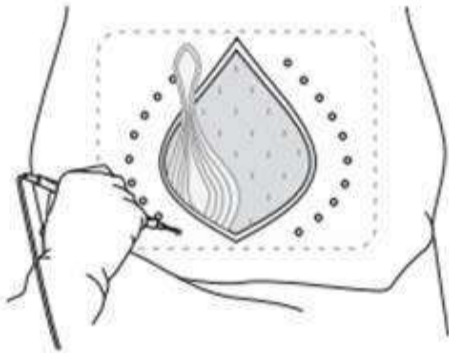




# ABRA abdominal closure

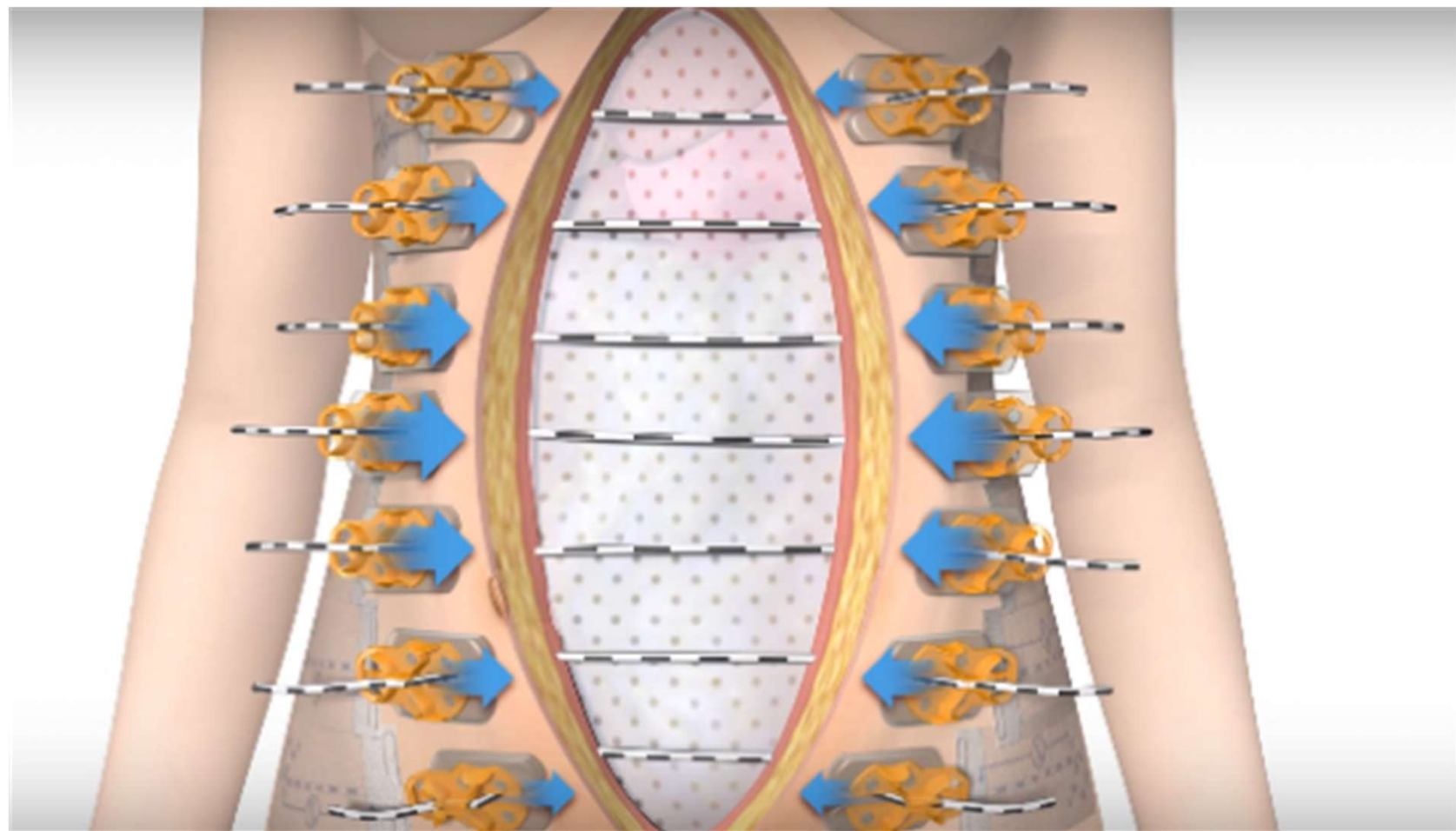


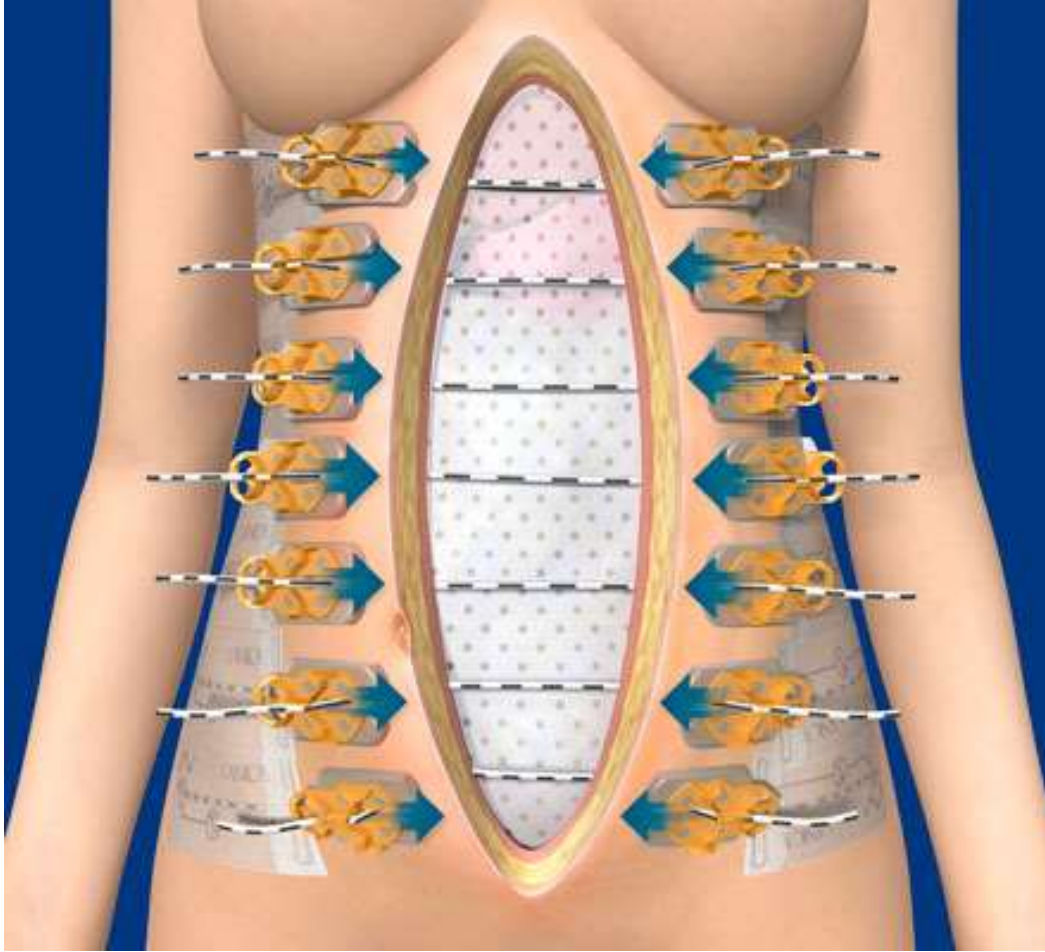
# Insert the Elastomers

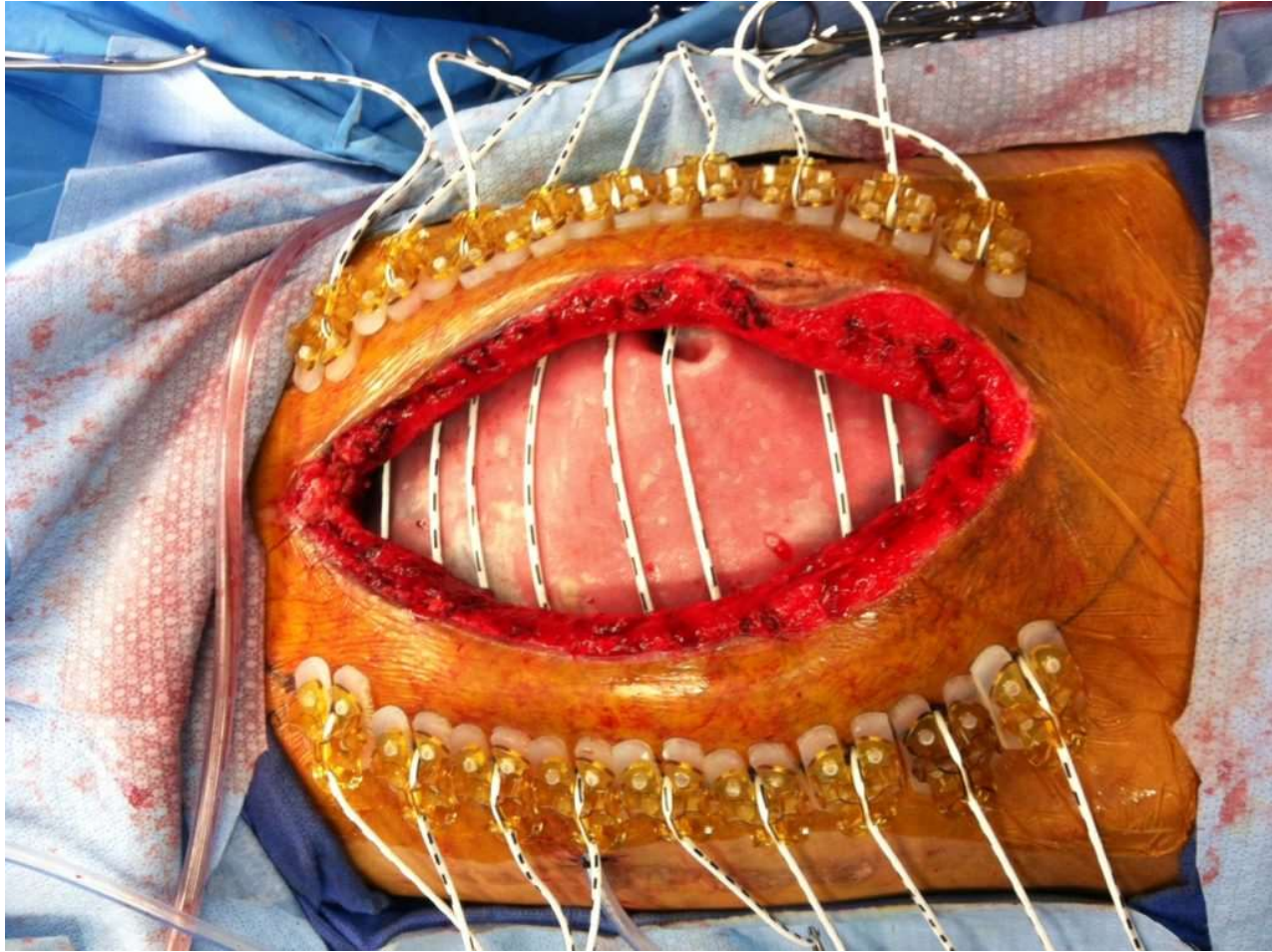


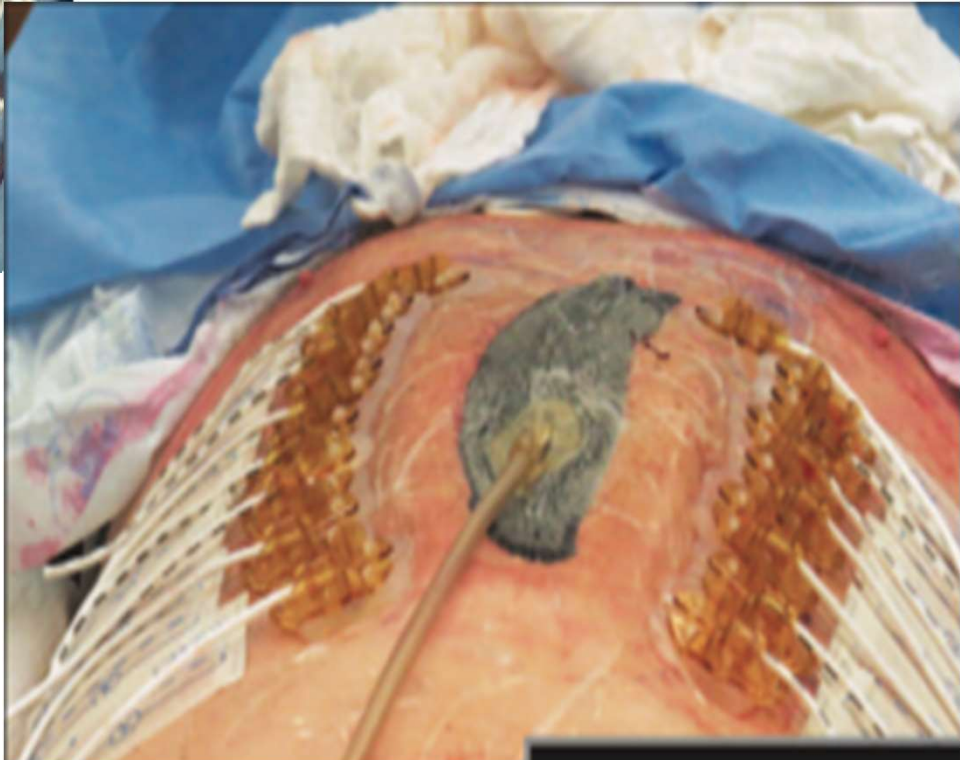
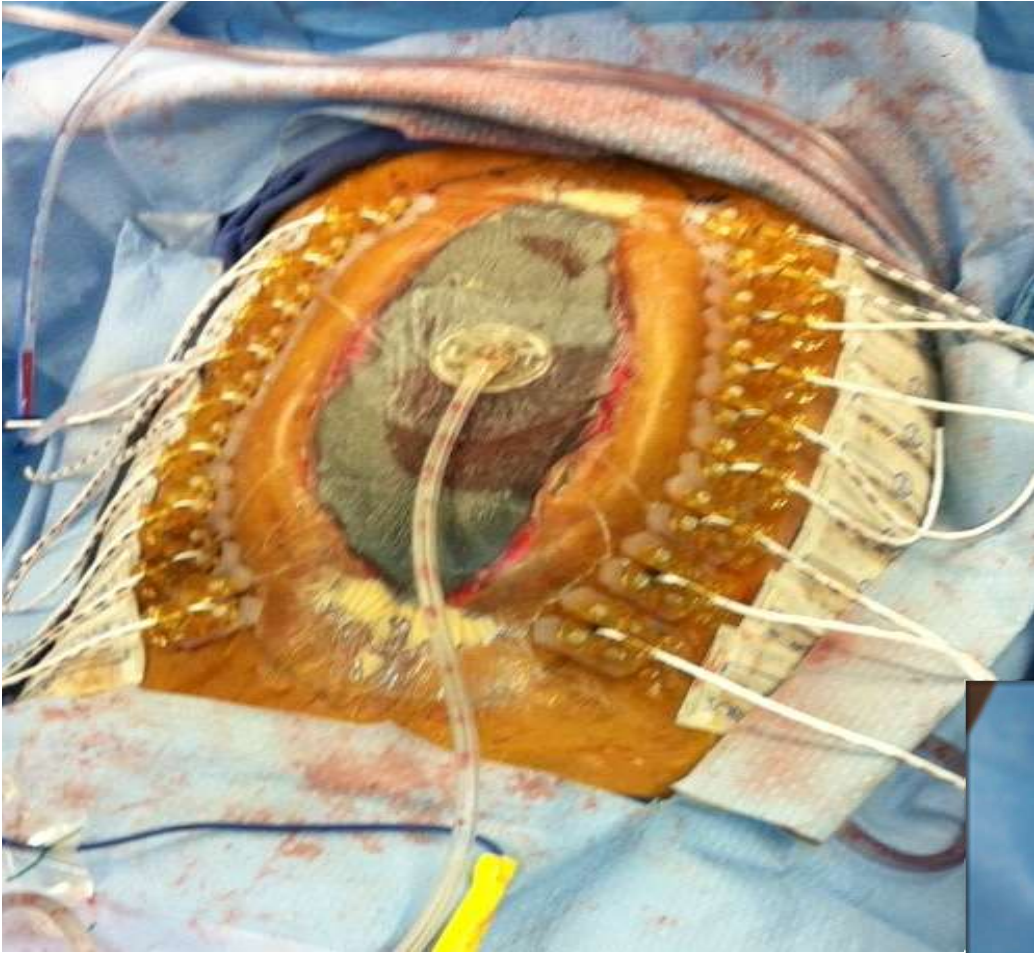
How I do it











## Management of the open abdomen with the Abdominal Reapproximation Anchor dynamic fascial closure system

Candace Haddock, M.D., David E. Konkin, M.D.\* , N. Peter Blair, M.D., M.B.C.

*Department of Surgery, Royal Columbian Hospital, University of British Columbia, 208-250 Keary Street, New Westminster V3L 5E7, Vancouver, BC, Canada*

**RESULTS:** Between January 2006 and July 2011, 36 patient charts were identified. The average Acute Physiology and Chronic Health Evaluation II score was  $21.9 \pm 6.9$ . There was a mean of  $3.1 \pm 1.8$  laparotomies before ABRA placement for each patient, and the duration of ABRA placement until removal was  $10.4 \pm 6.1$  days. Complete fascial apposition was achieved in 83% of the patients across the entire study and in 91% of the patients in the final 2 years. Component separation was used in 17% of cases. The incisional hernia rate was 13% at 6 months and 11% at 12 months.

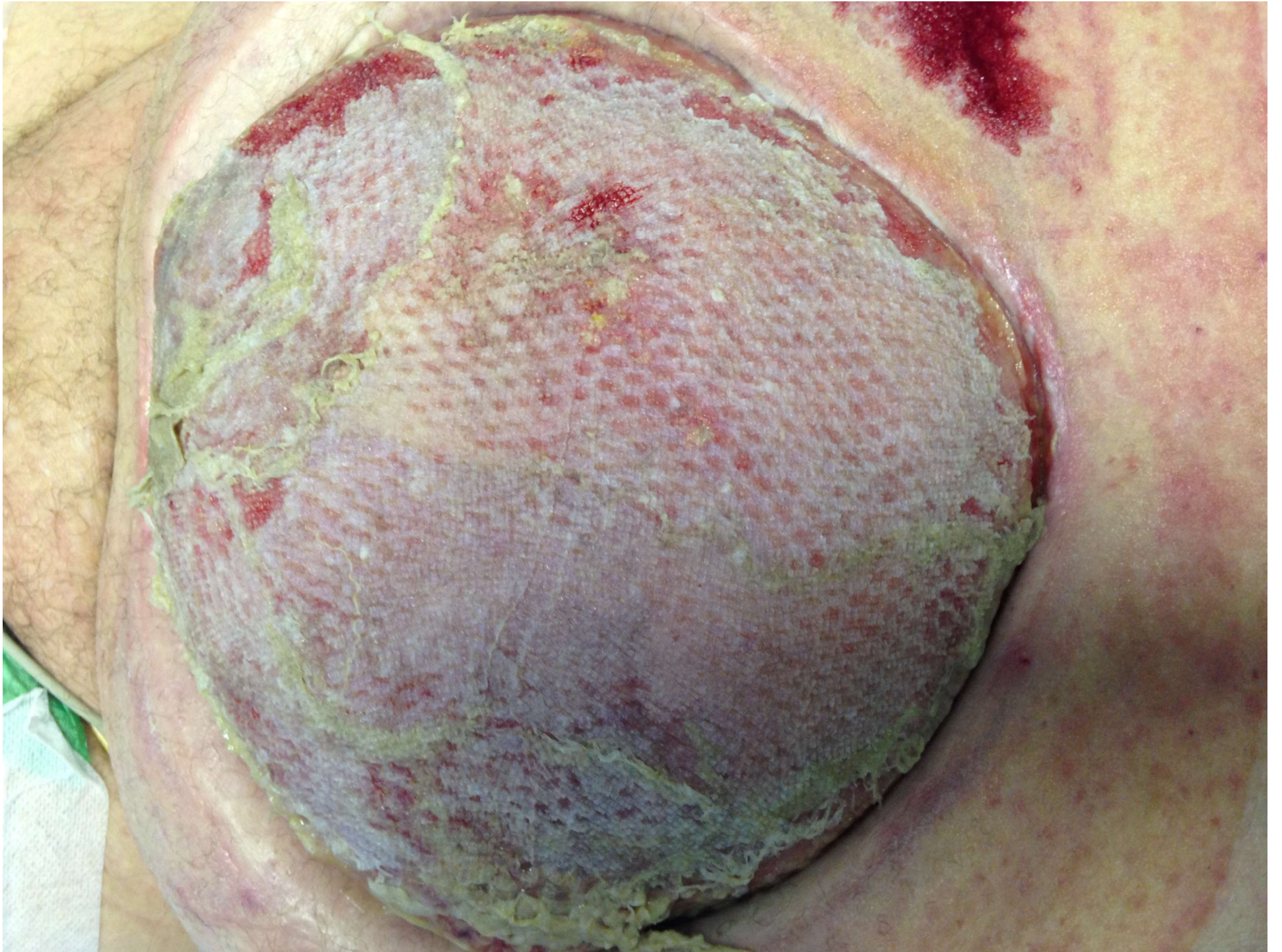
number of operations, the time to primary closure, the success rate of primary closure, and complications related to the use of the ABRA were analyzed.

**RESULTS:** Between January 2006 and July 2011, 36 patient charts were identified. The average Acute Physiology and Chronic Health Evaluation II score was  $21.9 \pm 6.9$ . There was a mean of  $3.1 \pm 1.8$  laparotomies before ABRA placement for each patient, and the duration of ABRA placement until removal was  $10.4 \pm 6.1$  days. Complete fascial apposition was achieved in 83% of the patients across the entire study and in 91% of the patients in the final 2 years. Component separation was used in 17% of cases. The incisional hernia rate was 13% at 6 months and 11% at 12 months.

**CONCLUSIONS:** Our use of the ABRA system resulted in an 83% fascial apposition rate, which further improved when experience was taken into account. The incisional hernia rate was acceptable in this complicated patient group. This technique is an excellent addition to a surgeon's armamentarium for complicated abdominal cases that require an open abdomen. Further prospective studies are planned to identify ideal candidates for this technique.

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- Timing of stoma closure?



**End  
stoma**

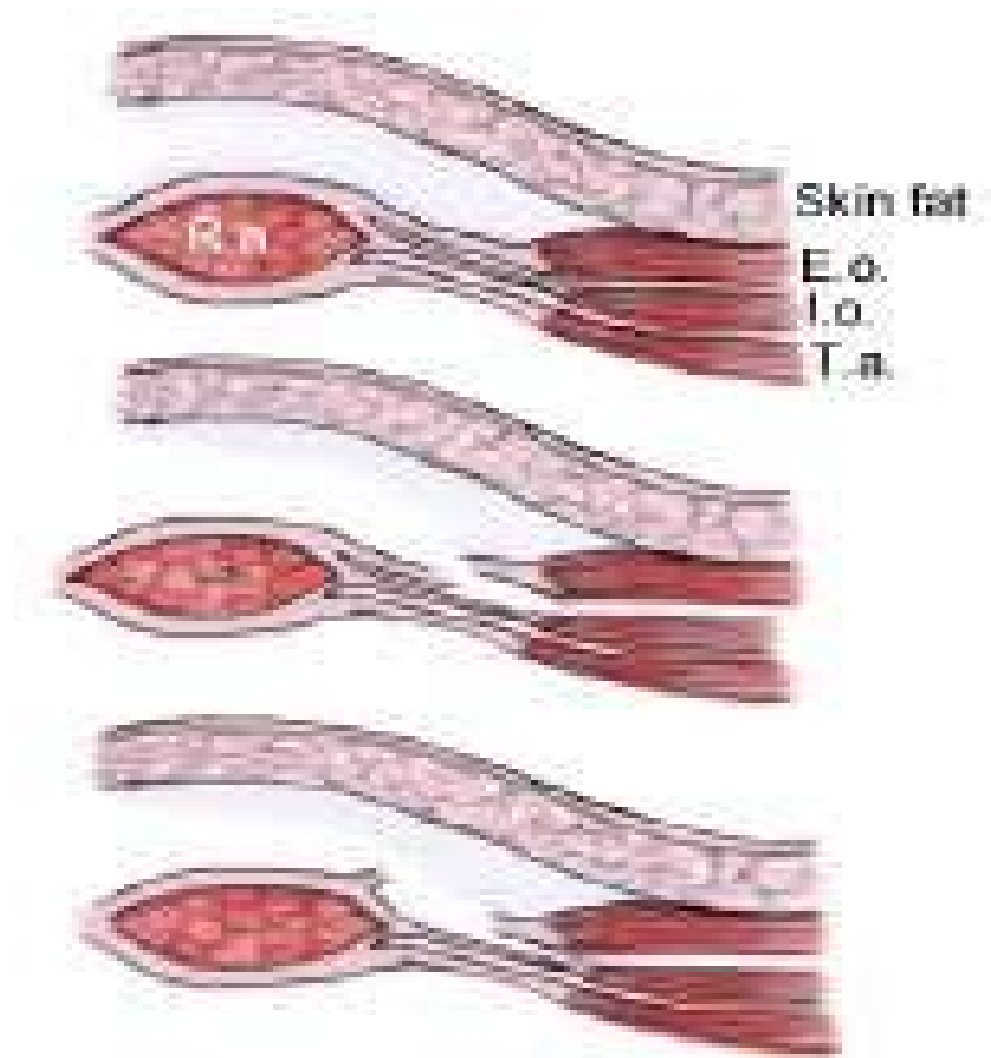


**Loop  
stoma**



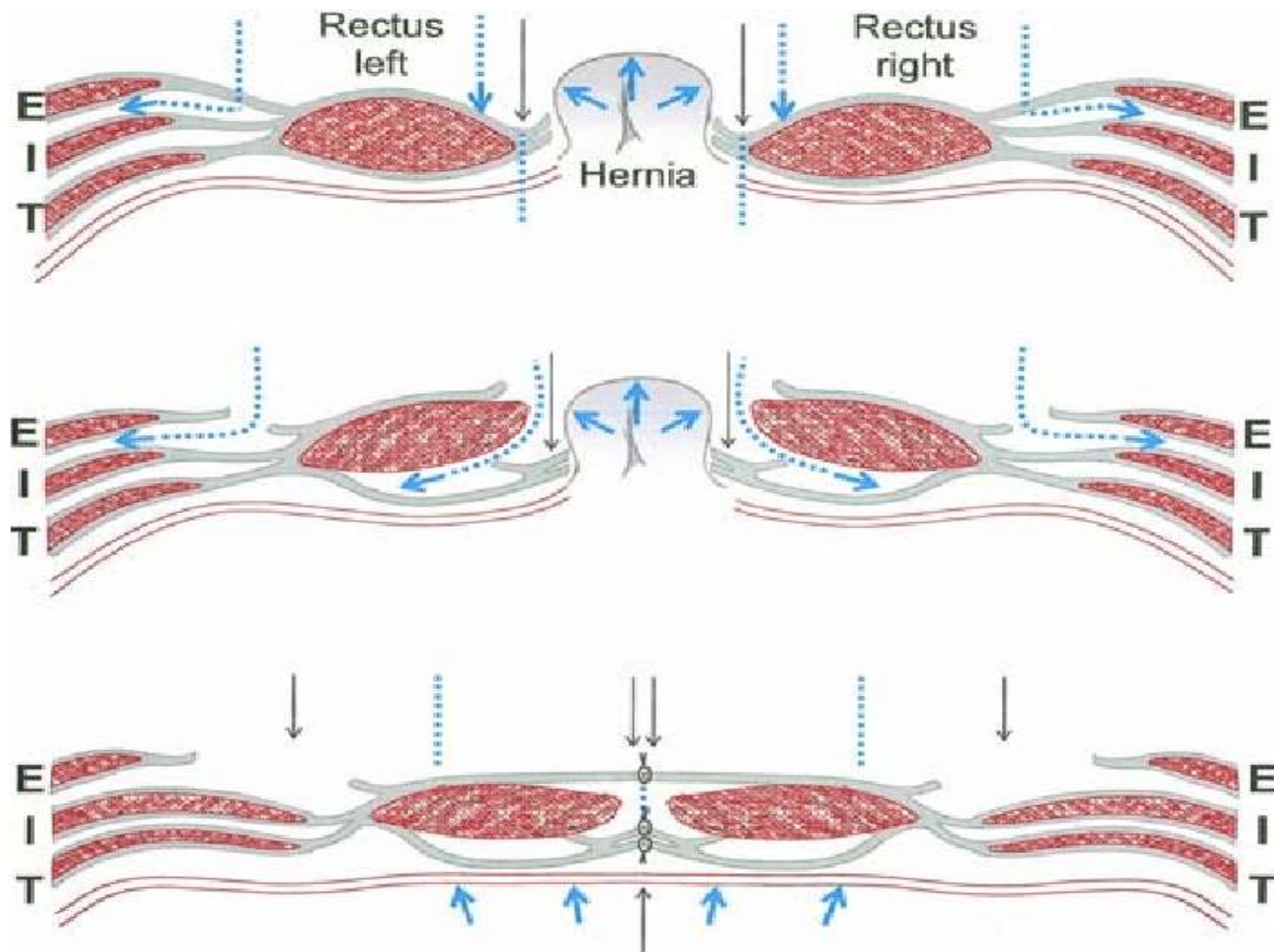
**Two stomas**

# Anterior component separation





# Posterior component separation



THE GOOD NEWS IS  
THAT WE MANAGED TO SAVE  
YOUR LIFE! THE BAD NEWS  
IS THAT YOU ARE GOING TO SPEND  
IT PAYING FOR THE GOOD NEWS!

