TECH INNOVATION

A NO SUTURE CHEST TUBE

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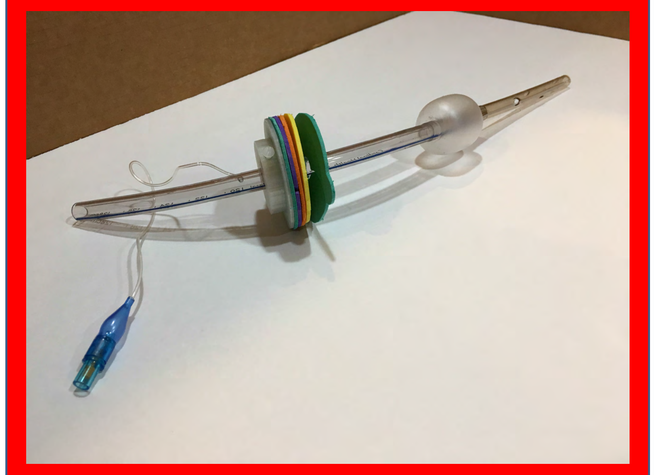
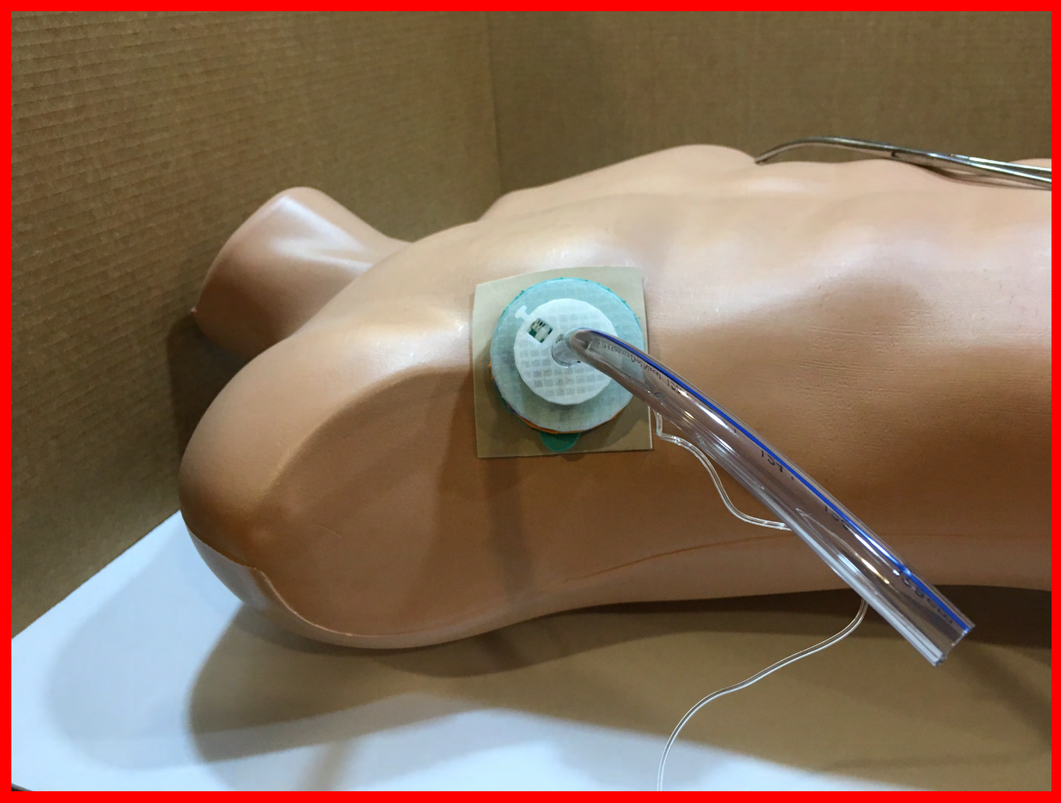
CHEST TUBES

Chest tubes are used to treat pneumothorax (air around the lung) or hemothorax (blood/fluid around the lung) as a result of blunt or penetrating trauma, or as a result of a spontaneous condition such as cancer, COPD, or body habitus. Previous chest tube insertion techniques used time consuming fixation of the tube with sutures. Speed is critical in treating trauma patients - this modification uses no sutures, and allows very rapid chest tube insertion. This also is safer for medical providers, since no sharp, potentially infectious needles are used.

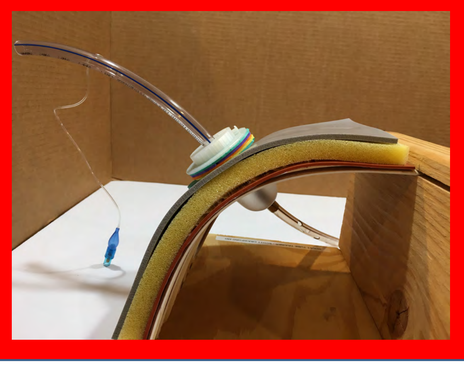
CHEST TUBE WITH DRESSINGS AND INFLATED BALLOON



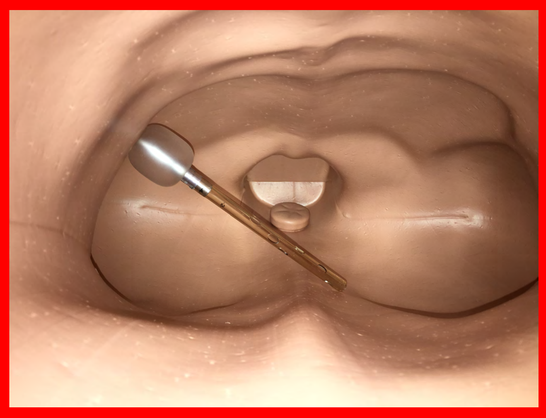
COMPLETED CHEST TUBE



NO SUTURE CHEST TUBE SHOWN WITH CHEST TUBE TRAINER WITH RIBS

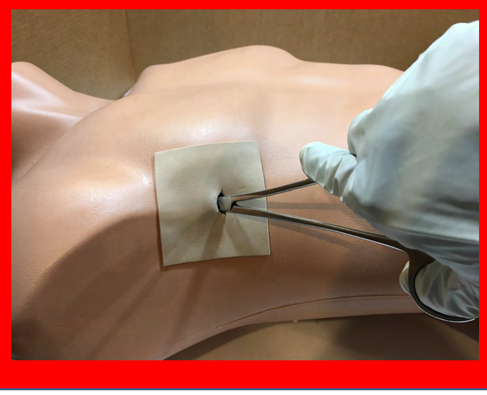


VIEW OF INFLATED BALLOON FROM INSIDE CHEST

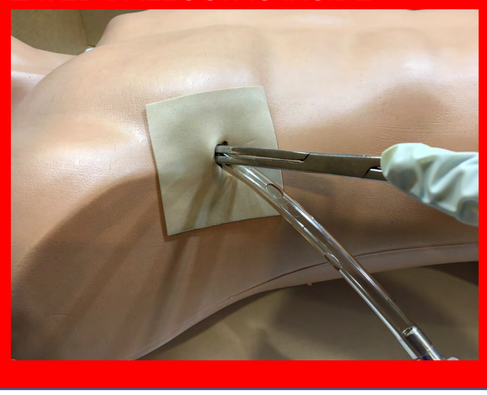


[1] CHOOSING THE INCISION SITE

[2] ACCESSING THE PLEURAL SPACE



[3] ADVANCING TUBE INTO CHEST UNTIL DEFLATED BALLOON IS INSIDE

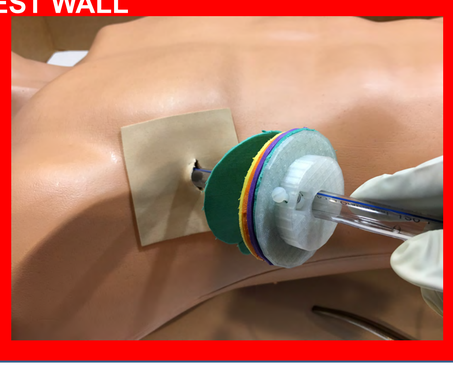


SUMMARY

This device uses a balloon to secure a chest tube inside the chest (preventing the tube from being pulled out), and a flange (preventing deeper migration of the tube into the chest). All dressings, with or without additional padding, are pre-attached to the tube. This invention is ideal for the military, first responders, helicopter and fixed wing providers, level one trauma centers, emergency physicians, surgeons, and critical care physicians.

[4] INFLATING THE BALLOON

[5] BALLOON IS PULLED BACK TO CHEST WALL



[6] HUB WITH DRESSINGS IS ADVANCED AGAINST CHEST WALL

Contact

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