

# Needle assembly for relieving a pneumothorax

Reference No: B77122

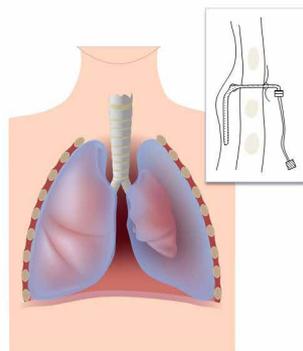
## CHALLENGE

The standard procedure to treat a pneumothorax is a mini-thoracotomy i.e. a medical surgery to open the thoracic cavity wall with a scalpel or scissors followed by introduction of a flexible tube into the pleural cavity to reinstate the vacuum. In the life-threatening event of a tension pneumothorax, the thorax will first be punctured with a needle, followed by a mini-thoracotomy. The mini-thoracotomy is time consuming, complex and needs experienced personnel.

## INNOVATION

The innovative needle assembly here is one simple medical instrument that provides all processing steps needed to relieve a pneumothorax and directly allows a safe patient transport without any additional procedures.

The needle assembly comprises a double-curved Veress cannula with a cutting end for puncturing the thoracic cavity. Inadvertently cutting of the lung is avoided by the safety mechanism of the cannula. A fixing bulge holds the device in its position and seals the incision. The proximal end portion of the needle assembly can be connected to a suction tube to remove fluid or gas from the cavity while the intrusion of air into the pleural cavity is prevented by a one-way valve.



- Novel medical device for pneumothorax relieve
- Ideally suited for emergency situations
- Safe patient transport
- Fast and easy to use
- Minimizes the risk of inadvertent injuries

## COMMERCIAL OPPORTUNITIES

Major advantages of the new device are:

- The pneumothorax can be relieved with only one medical instrument which is crucial in emergency situations, lacking fully medical trained personnel, time and surgical equipment
- One fast step, directly enabling a safe patient transport
- The device can equally be used for relieving an accumulation of liquid in the pleural cavity (e.g. a hemothorax)
- The design prevents serious inadvertent injuries by the cutting end during movement of the thoracic cavity or lung and guides the inexperienced user

## DEVELOPMENT STATUS

Currently searching for partners for further development and licensing