

# Ex vivo modeling of perioperative air leaks: The Physiologic Lung Model



## The need for a model

- Ethicon is committed to lowering the incidence of pulmonary air leaks
- Limited understanding of air leak causes
- Existing models insufficient to replicate perioperative breathing
- Guide innovation to better address this complication



Read full article

### Ex Vivo Modeling of Perioperative Air Leaks in Porcine Lungs

C Klassen et al. *IEEE Transactions on Biomedical Engineering*, (March 2018)

[www.ethicon.com/thoracicevidence](http://www.ethicon.com/thoracicevidence)

## The Physiologic Lung Model

- First and only benchtop model to **simulate mechanical and physiologic breathing** (positive and negative pressure)
- **Developed in partnership with clinical experts** at Massachusetts General Hospital
- Ability to **isolate stapler contribution to air leaks**

### Measurement of air leaks

- Incidence
- Volume
- Source

