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## **Endotracheal Tube Cuff with Integrated Sensors**

### ***Application***

The invention is an endotracheal tube cuff with integrated sensors to measure the pressure between the tube and the trachea.

### ***Key Benefits***

- Pressure sensors allow for detection of leaks
- Inflation of the cuff can be controlled based on the detected pressure
- Better control of cuff pressure prevents erosion of the tracheal wall
- Designed for use in neonates
- Very economical to manufacture

### ***Market Summary***

The global endotracheal tube market was approximately \$2 billion in 2019. Additionally, intubation related injuries lead to significant cost increases (approximately \$2,000 and 1.1 additional days of hospitalization). Endotracheal tube design should ensure proper fitment and reduce injuries while improving patient experience and outcomes.

### ***Technical Summary***

The present invention is a endotracheal tube that has a cuff with integrated sensors. The integrated sensors allow for measurement and adjustment of cuff pressure to prevent injury to the tracheal wall while maximizing the seal to prevent leakage.

### ***Developmental Stage***

A prototype has been built and tested on a mannequin in a state-of-the-art simulation facility

### ***Patent Information***

<b>App Type</b>	<b>Country</b>	<b>Serial No.</b>	<b>Patent No.</b>	<b>File Date</b>	<b>Issue Date</b>
Provisional	US	63/020,307		5/05/2020	

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