Finally, a cuffed ET tube designed for the pediatric anatomy.
Common Concerns with Pediatric Endotracheal Tubes

- Short, sensitive pediatric airways
- Laryngeal and tracheal damage due to inappropriate tube size
- Selecting the correct tube size, risk of repeated re-intubation
- Ensuring correct tube placement
- Accidental tube dislocation
- Ineffective ventilation due to excessive air leak
- Inadequate airway seal for ventilation
- Cuff pressure-induced laryngeal and tracheal trauma
- Aspiration of blood and secretions (ENT, oral/dental surgery)
- Ventilator-associated pneumonia (VAP) in patients on long-term ventilation

Not All Pediatric Tubes Are Created Equal!
Advanced microthin polyurethane cuff membrane seals the airway at ultra-low pressure

- Microthin material (10 microns) permits a true high volume, low pressure (HVLP) cuff to reduce cuff pressure

- MICROCUFF* pediatric tubes effectively seal at an average cuff pressure of 11 cm H$_2$O, about half the pressure of conventional tubes

- MICROCUFF* pediatric tubes seal below the commonly presumed capillary perfusion pressure of the pediatric population, diminishing the risk to mucosal tissue$^3$

- Ultra-low cuff pressure can reduce the risk of airway trauma

- Microthin polyurethane cuff membrane can withstand burst pressures over 800 cm H$_2$O and has a puncture strength almost double compared to conventional cuffs$^3$

**MICROCUFF* tube seals at a lower pressure than conventional pediatric tubes$^4$**

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Median cuff pressure to seal the trachea in children aged 2-4 (n=4x20 patients, ID 4.0mm). Sealing pressure assessed by auscultation within 5 minutes after intubation.
MICROCUFF* Endotracheal Tube is designed for the pediatric anatomy — NOT a downsized adult tube

MICROCUFF* tube is designed for ideal anatomical cuff placement

- Short, cylindrical cuff placed near the tracheal tube tip — securing cuff placement in the trachea, not in the pressure-sensitive larynx
- Anatomically-based intubation depth mark results in correct placement and a cuff-free subglottic zone
- Four precision bands to facilitate and confirm optimal tube placement

MICROCUFF* tube is designed for pediatric airway

**MICROCUFF*** tube offers the advantages of a cuffed tube with a NEW level of safety

**MICROCUFF*** tube provides confidence in a sealed airway

- Seal with a cuff membrane in the trachea instead of rigid tube shaft in the cricoid
- Low rate of re-intubation
  - Reduces need to replace oversized tracheal tubes
  - Less patient trauma, time and material costs
- Sealed airway allows for use of minimal and low flow anesthesia
- Sealing with a cuff compensates for different sized and shaped airways

**MICROCUFF*** tube improves patient care

- Positive pressure ventilation with a sealed airway, providing constant and efficient minute ventilation
- Sealed airway ensures reliable end-tidal CO₂ lung function and oxygenation consumption monitoring
- Reduced risk of aspiration of blood and secretions

**MICROCUFF*** tube allows for safe tracheal intubation and sealing in children

- In a 500 patient study
  - Only 1.6% of patients had to be re-intubated due to incorrect size selection
  - Only 0.4% of patients experienced post extubation croup requiring short-term therapy

"In the hospital setting, a cuffed endotracheal tube is as safe as an uncuffed tube for infants (except the newborn) and children... Evidence has accumulated that cuffed tubes can be safely used in children." — 2005 American Heart Association Guidelines for CPR and ECC

When used in accordance with directions for use.
<table>
<thead>
<tr>
<th>REF Number</th>
<th>Tube Size I.D.</th>
<th>Oral/Nasal Magill REF</th>
<th>Oral Curved REF</th>
<th>Tube Size I.D.</th>
<th>Age/Weight (Years/kg)</th>
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<td>35111</td>
<td>3.0 mm</td>
<td>35161</td>
<td>3.0 mm</td>
<td>3.0 mm</td>
<td>term ≥ 3 kg up to &lt;8 months</td>
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<td>35162</td>
<td>3.5 mm</td>
<td>3.5 mm</td>
<td>8 months to &lt;2 years</td>
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<td>35113</td>
<td>4.0 mm</td>
<td>35163</td>
<td>4.0 mm</td>
<td>4.0 mm</td>
<td>2 to &lt;4 years</td>
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<td>4 to &lt;6 years</td>
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<td>5.5 mm</td>
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