

Author, Year Country Study Design Sample Size	Population Intervention Outcome Measure	Results
<p>(Behl & Watt, 2005) United Kingdom Observational N=9</p>	<p>Population: Mean age: 5.9 (1.5-13.8) yr; Gender: males=7, females=2; Mean time since injury: 7 yr. Intervention: None. Retrospective Audit. Outcome Measures: Inside diameter (ID), outside diameter (OD), lateral tracheal diameter (LTD).</p>	<ol style="list-style-type: none"> 1. Following rehabilitation and discharge, all children were being ventilated at home on room air; the majority were on mechanical ventilation using the Puritan Bennett Companion 2801 ventilator, one used the Breas 501 ventilator with a pressure-limiting valve and one used the Breas 401 ventilator. 2. The IDs of all the tubes used ranged from 4.0 to 7.0 mm in incremental steps of 0.5 mm, and the ODs ranged from 6.0 to 10.7 mm in unequal steps because of material differences. 3. There was a steady increase in tracheostomy tube ID with increasing age ($p < 0.01$); this was expressed by the relationship: $ID = (age \times 0.3) + 3.5$. 4. OD also related to age ($p < 0.01$); this was expressed by the relationship: $OD = (age \times 0.3) + 5.5$. 5. LTD was increased with increasing age ($p < 0.01$); this was expressed by the relationship $LTD = (age \times 1.2) + 4.6$. 6. ID correlated closely with weight ($p < 0.01$); this was expressed by the relationship $ID = (weight \times 0.08) + 3.1$. 7. OD correlated well with weight ($p < 0.01$); this was expressed by the relationship $OD = (weight \times 0.1) + 4.7$. 8. LTD also showed good correlation with weight ($p < 0.01$); this was expressed by the relationship $LTD = (weight \times 0.3) + 2.7$.