

Pediatric Airway Characteristics

Anesthetic Pearls: Anesthetic Implications of Pediatric Airways

Characteristics of the Infant Airway

- Large head & tongue
- Mobile epiglottis
- Anterior position of larynx
- Infant larynx is higher in the neck than in an adult (more easily obstructed by the tongue)

Above characteristics combine to make intubation easier with the infant's head in a neutral or slightly flexed position rather than hyper-extended.

In a pediatric patient, **the cricoid cartilage** (not the vocal cords) **is the narrowest portion of the larynx**. Imperative to be careful to minimize airway trauma (and any possible ensuing subglottic edema) by selecting an appropriate ETT.

Predicted Size Uncuffed Tube = $(\text{Age} / 4) + 4$

Predicted Size Cuffed Tube = $(\text{Age} / 4) + 3$

Incidentally, another quick and dirty method for guesstimating appropriate pediatric airway sizing is approximating the ETT to the diameter of the patients smallest (pinky) digit.

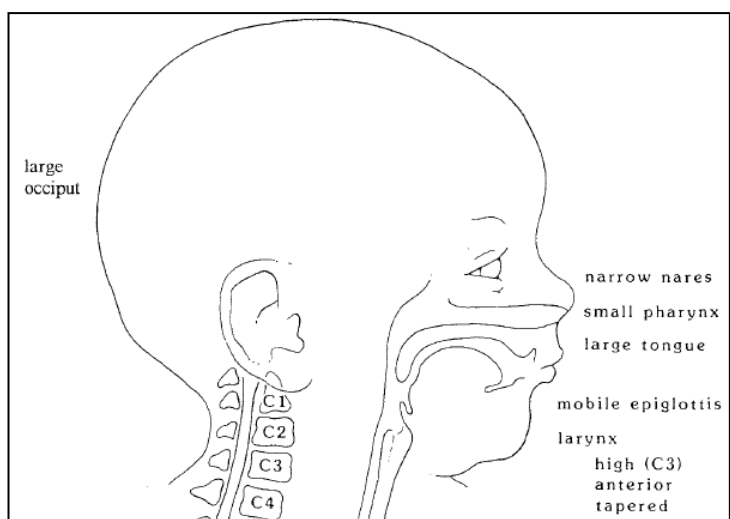


Table 1 - Guide for selecting the internal diameter of endotracheal tube, suction cannula and laryngoscope blade in infants and children

Age group	Internal diameter of endotracheal tube	Suction cannula	Laryngoscope blade
Preterm	2.5-3.0	4-5 fr	0
Newborn	3.0	6 fr	0
1-6 months	3.5	6	0
6-12 months	3.5-4.0	6	1
12-24 months	4.0-4.5	8	1-2
3-4 years	4.5-5.0	10	2
5-6 years	5.0-5.5	10	2
7-8 years	5.5-6.0	10	2-3
9-10 years	6.0-6.5	10	3
11-12 years	6.5-7.0	10	3