

Sept 2009
QUESTION 07

Compare and contrast the anatomy of the upper airway of a term newborn with that of an adult

	New Born	Adult
Miller's 5 differences	<p>Larger tongue, no dentition</p> <p>Larynx is more cephaled (Cricoid at C4)</p> <p>Epiglottis is shaped differently, being short, stubby, omega shaped, and angled over the laryngeal inlet</p> <p>Vocal cords are angled</p> <p>Larynx is funnel shaped, the narrowest portion occurring at the cricoid cartilage</p>	<p>Smaller tongue</p> <p>Larynx more caudal (Cricoid at C6)</p> <p>Epiglottis is longer and stiffer</p>
Other differences of note	<p>Increased physiological dead space due to large head 3.3 ml/kg</p> <p>Airway more oedematous due to hormones from mother (oestrogen/progesterone)</p> <p>Less muscular and more mobile neck</p> <p>Narrower airways increase the resistance and work of breathing</p> <p>Head is relatively larger</p> <p>Less effective pharyngeal dilators</p> <p>Angles of the bronchi take off is similar making left sided intubation as likely as right</p>	<p>Decreased PDS 2 ml/kg</p> <p>Decreased mobility and more likely to have arthritis and pathological issues</p> <p>Larger airways, less resistance and WOB</p> <p>Head is relatively smaller</p> <p>More effective pharyngeal dilator muscles</p> <p>Accidental intubation more likely to be right sided</p>