

EVOLUTION OF INTUBATION GEOMETRY

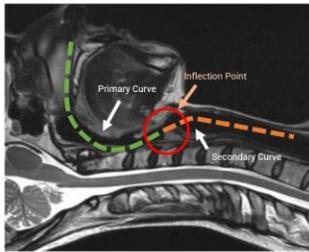


Runnels Steerable Introducer™

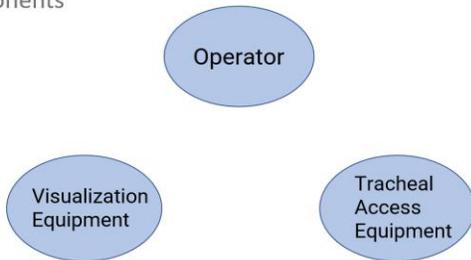
SOLVING GEOMETRY PROBLEMS

Geometry Problem Key Points

- 2 Curves
- Opposite directions
- Inflection point at glottis
- Serpentine geometry

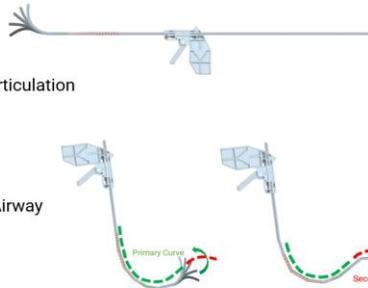


Intubation as a System:
3 Components



Dynamic Tracheal Access

- Dynamic Tip
 - Anterior and Posterior Articulation
 - Controlled by a Handle
- Flexible Shaft
 - Conforms to Curves of Airway



	Early 1940s DL Era Begins	Early 2000s VL Era Begins	Late 2000s Combined Technique VL + Dynamic Introducers (FOB)
Predominant geometric theory	DL Alignment of axis <i>Linear geometry</i>	VL Alignment of axis <i>Linear geometry</i>	VL + Dynamic Introducers (FOB) Alignment of axis 2-Curve theory <i>Linear / Serpentine geometry</i>
Visualization geometry	<i>Linear geometry</i>	<i>Serpentine geometry</i>	<i>Serpentine geometry</i>
Tracheal access geometry	<i>Linear geometry</i>	<i>Serpentine geometry</i>	<i>Serpentine geometry</i>
Tracheal access Equipment	Bougies and malleable stylets <i>Static tracheal access</i>	Rigid precurved stylets <i>Static tracheal access</i> -Solves primary curve only	Dynamic introducers <i>Dynamic tracheal access</i> -Solves primary curve, and secondary curve
Predominant cause of attempt failure	Visualization Failure	Tracheal Access Failure	Superior results

