ASSESSMENT OF STRIDOR IN NEONATE & YOUNG CHILDREN

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Outline

- Pathophysiology
- Definition
- S&S of stridor
- Differential diagnosis
- Management
Stridor

- **Stridor**: (Inspiratory stridor)
  - Musical, high-pitch sound produced by oscillations of upper airway structure
  - Rapid turbulent air flow through narrowed segment of respiratory tract (most extrathoracic)
  - Indicates upper airway obstruction, partial

- **Hoarseness**: involvement of vocal cords

- **Respiratory distress / suprasternal retraction**
Poiseuille’s Law

\[ R = \frac{8nl}{\pi r^4} \]

- \( R \) = airway resistance
- \( l \) = length of airway
- \( n \) = viscosity of gas
- \( r \) = radius of airway
Poiseuille’s Law

Normal

Edema
1 mm.

Resistance
\[ R \propto \frac{1}{\text{radius}^4} \]

X-section area

Infant

4 mm

16X

75%

Adult

8 mm

3X

44%