

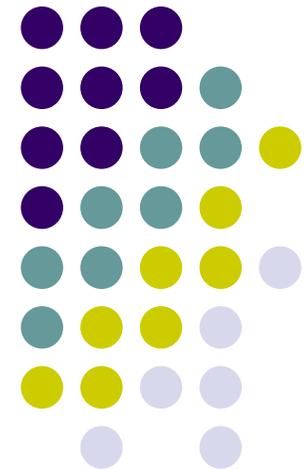
# Noninvasive Mechanical Ventilation in Children

ศ.พญ.อรุณวรรณ พงษ์พิพันธุ์

หน่วยโรคระบบหายใจเด็ก

ภาควิชากุมารเวชศาสตร์

คณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี



# Noninvasive Mechanical Ventilation



- Provide support without artificial airways
- Negative-pressure ventilation
- Iron lung used in 1950s during polio epidemic

# Iron lung



- Useful in neuromuscular dz, chest wall deformity, central hypoventilation
- Not useful in acute resp. failure
- Poor patients' acceptance
- Awkward size
- Create upper airway obstruction

# Noninvasive Mechanical Ventilation



- Use of mask or nasal prongs
- Provide support through nose and/or mouth
- Absence of artificial airways eg ETT, trach



# Advantages

- Avoid intubation and/or tracheostomy
- Prevent injury to vocal cords
- Decreased risk of nosocomial pneumonia
- Decreased sedation requirement
- Preserve swallowing, feeding, speech
- Ambulate more easily
- Can be used at home