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**UNLVERSITY**

**Collage of Health and  
كلية التقنيات الصحية والطبية  
COLLEGE OF HEALTH AND MEDICAL  
TECHINQUES  
Medical Technology**

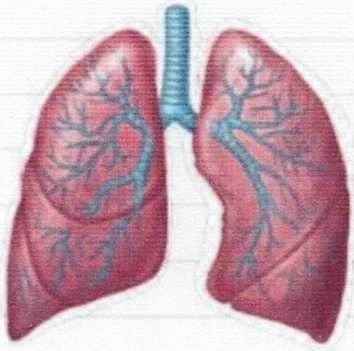
**Ahethetic Equipments**

2010  
**BY**

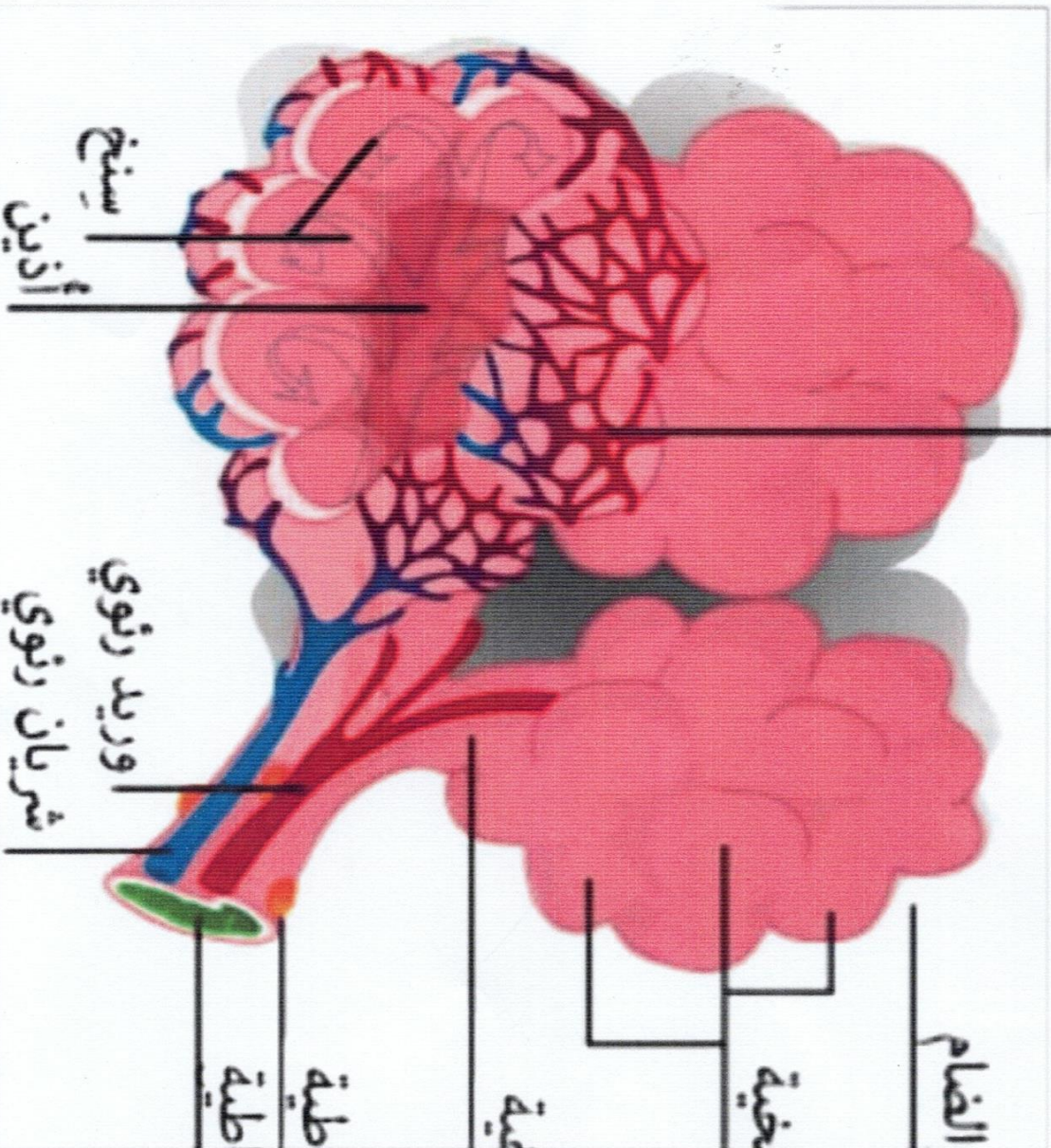
**Ahmed Marza**

# Ventilator terms

Tidal volume	Respiratory rate	Minute volume	I:E ratio	Fio <sub>2</sub>	Airway pressure
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أسرة الشعيرات



النسيج الضام

الأكياس السنخية

قناة شعيرية

غدة مخاطية

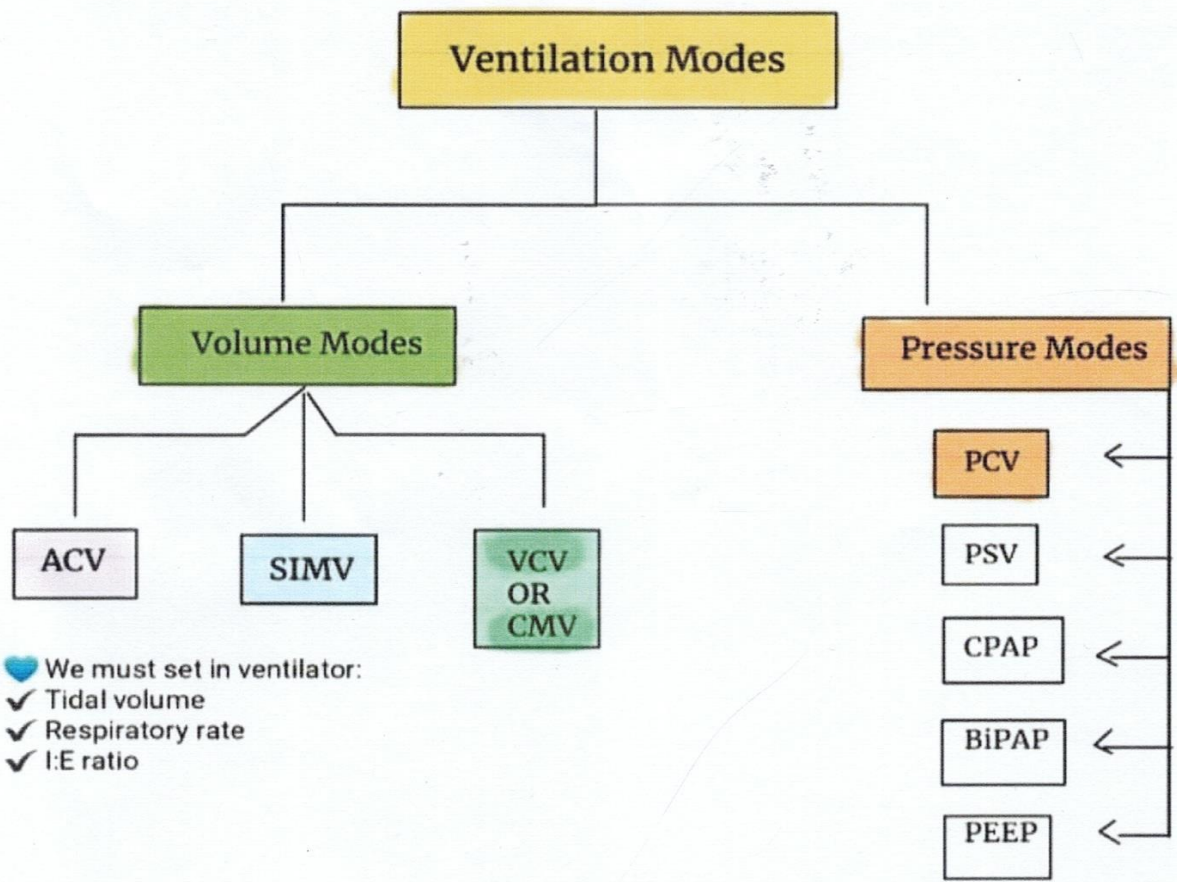
بطانة مخاطية

وريد رئوي

شريان رئوي

سنخ

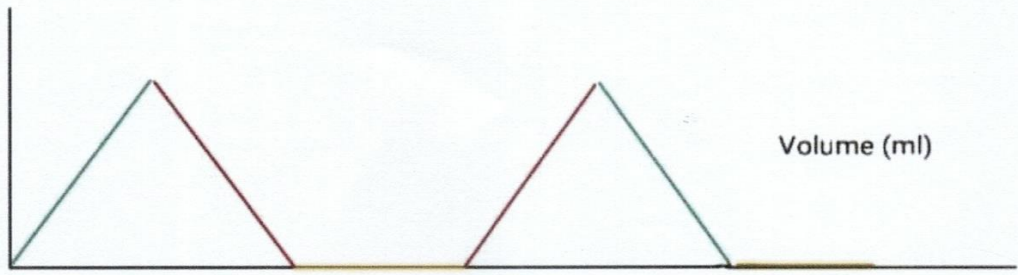
أذين



- ♥ We must set in ventilator:
- ✓ Tidal volume
  - ✓ Respiratory rate
  - ✓ I:E ratio

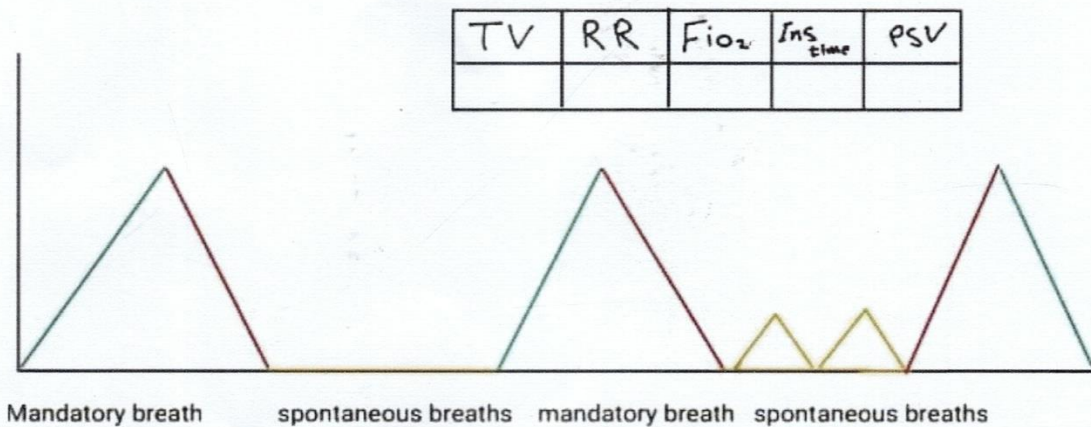
**1- Volume Controlled Ventilation (VCV) or Continuous Mandatory Ventilation (CMV)**

- ✓ Patient receives preset tidal volume
- ✓ Patient can't increase RR or breath spontaneously
- ✓ The patient should be paralyzed



## 2- Synchronized Intermittent Mandatory Ventilation (SIMV)

- ✓ In between mandatory breaths patient is allowed to take spontaneous breath at any tidal volume (T.V)



- ✦ SIMV mode is useful during weaning patients from ventilator 😊

## 3- Assist Control Ventilation (AC) mode

TV	RR	Fio <sub>2</sub>	Ins <sub>time</sub>	PSV
500	10	70	1.7	10

- ✓ Ventilator delivers a preset tidal volume at a preset R.R when there is no respiratory effort from the patient .
- ✓ If the patient triggers a spontaneous respiratory effort earlier than the time interval created by the set R.R , the ventilator will still deliver the breath at the set tidal volume and then rests the time interval for the next breath.
- ✓ All breaths are delivered at the set tidal volume whether it was ventilator triggered or patient triggered.





Thanks