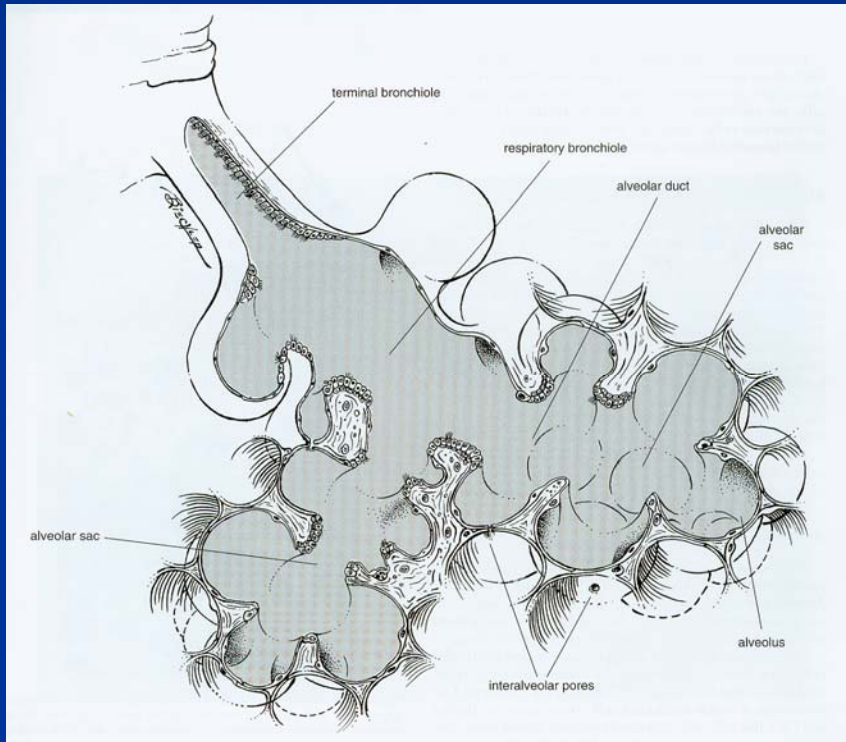


# Bronchioles



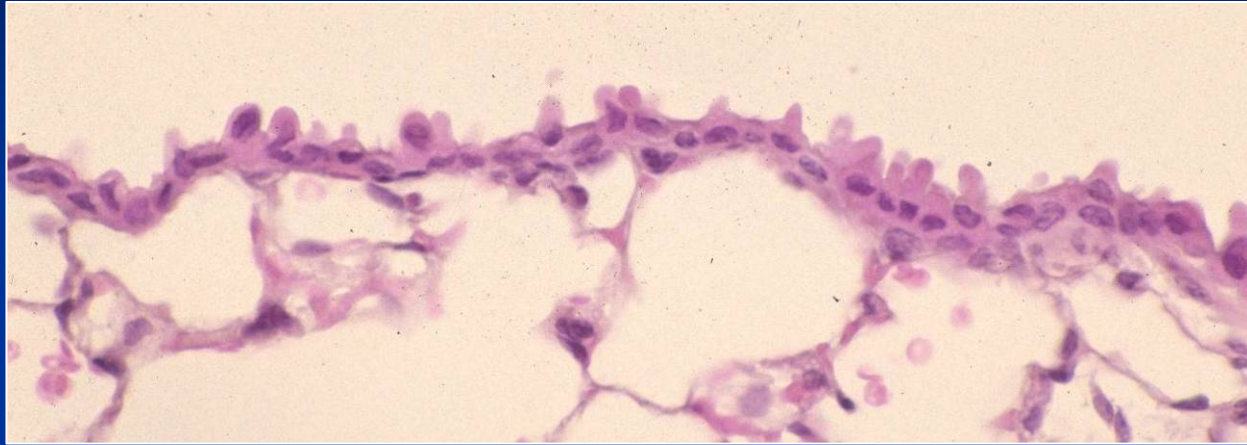
## ■ Epithelium

- Simple columnar or cuboidal
- Ciliated cells
- Clara cells
- NO mucous cells

## ■ Respiratory bronchioles

- In some species

# Bronchioles – Clara Cells



- Non ciliated, columnar
- Secretory
- Cytochrome P450 enzyme rich
  - Similar to hepatocytes in liver
  - Species dependent
  - Also present in some alveolar cells

# Gross Anatomy of the Lung

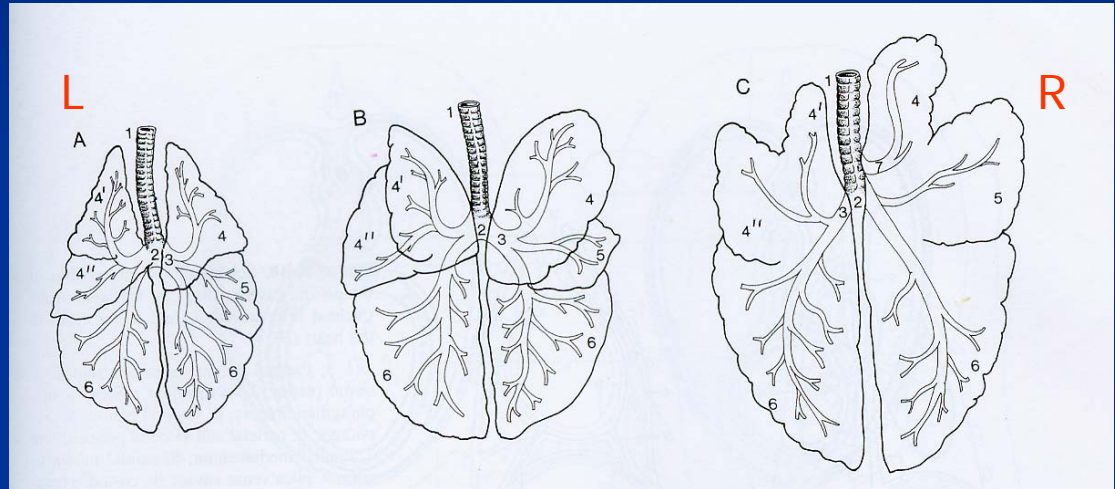
## ■ Basic anatomy:

### ■ Right side

- Cranial
- Middle
- Caudal
- Accessory

### ■ Left side

- Cranial (divided in most species)
- Caudal



Cat

Dog

Pig

# Comparative Respiratory Anatomy/Physiology

Lung Features	Cattle, Pigs	Sheep, Goats	Horses, Humans
Lobation	Good	Good	Poor
Secondary Lobulation	Good	Poor	Incomplete
Collateral Ventilation	Poor		Good
Pleura	Thick	Thick	Thick
Muscular layer of pulmonary blood vessels	Thick	Thick	Thick

# Birds

- Air sacs
- Parabronchi and air capillaries

