

THE PRETERM NEONATE

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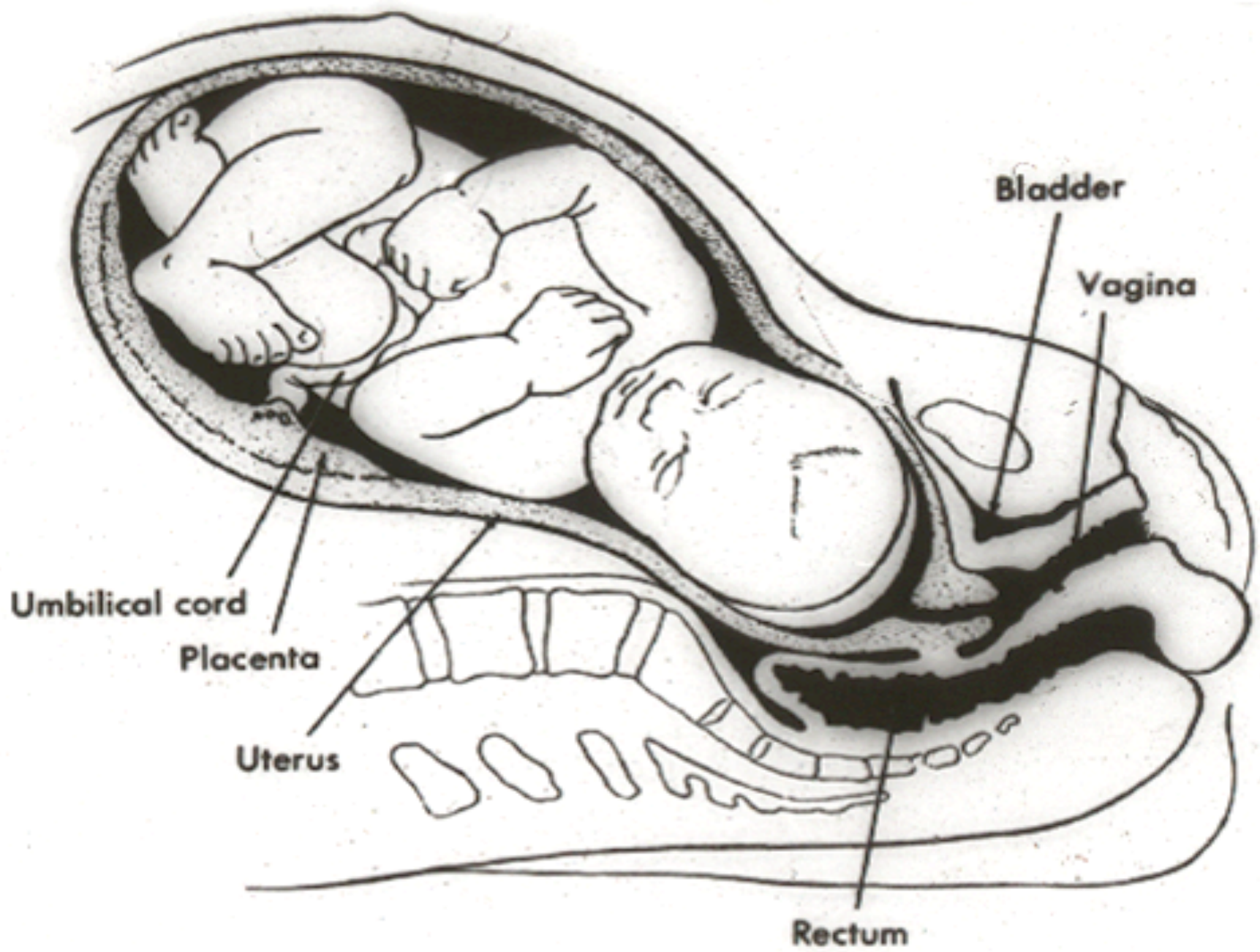
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Children's Hospital of New York

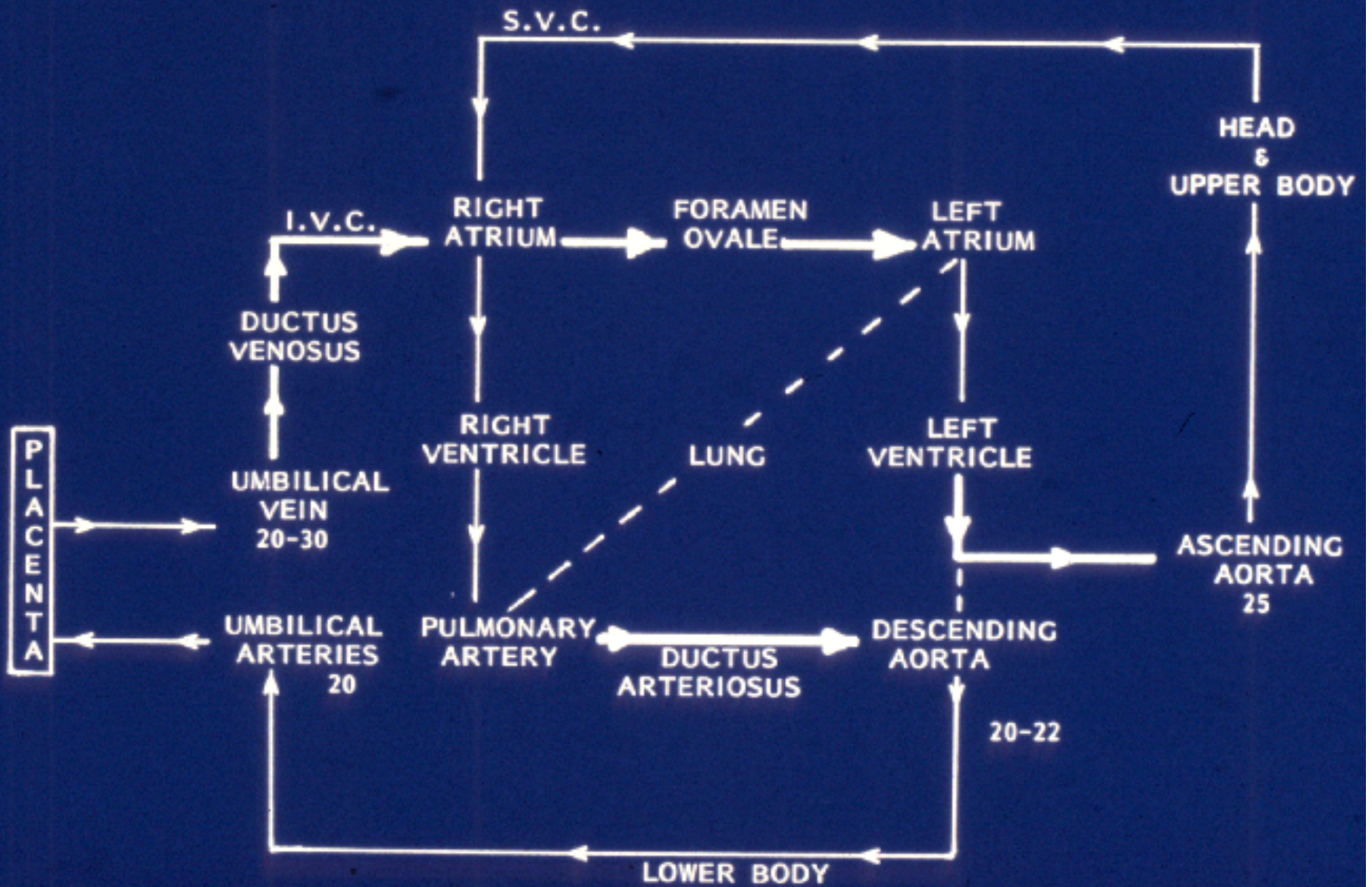
New York-Presbyterian

The University Hospitals of Columbia and Cornell

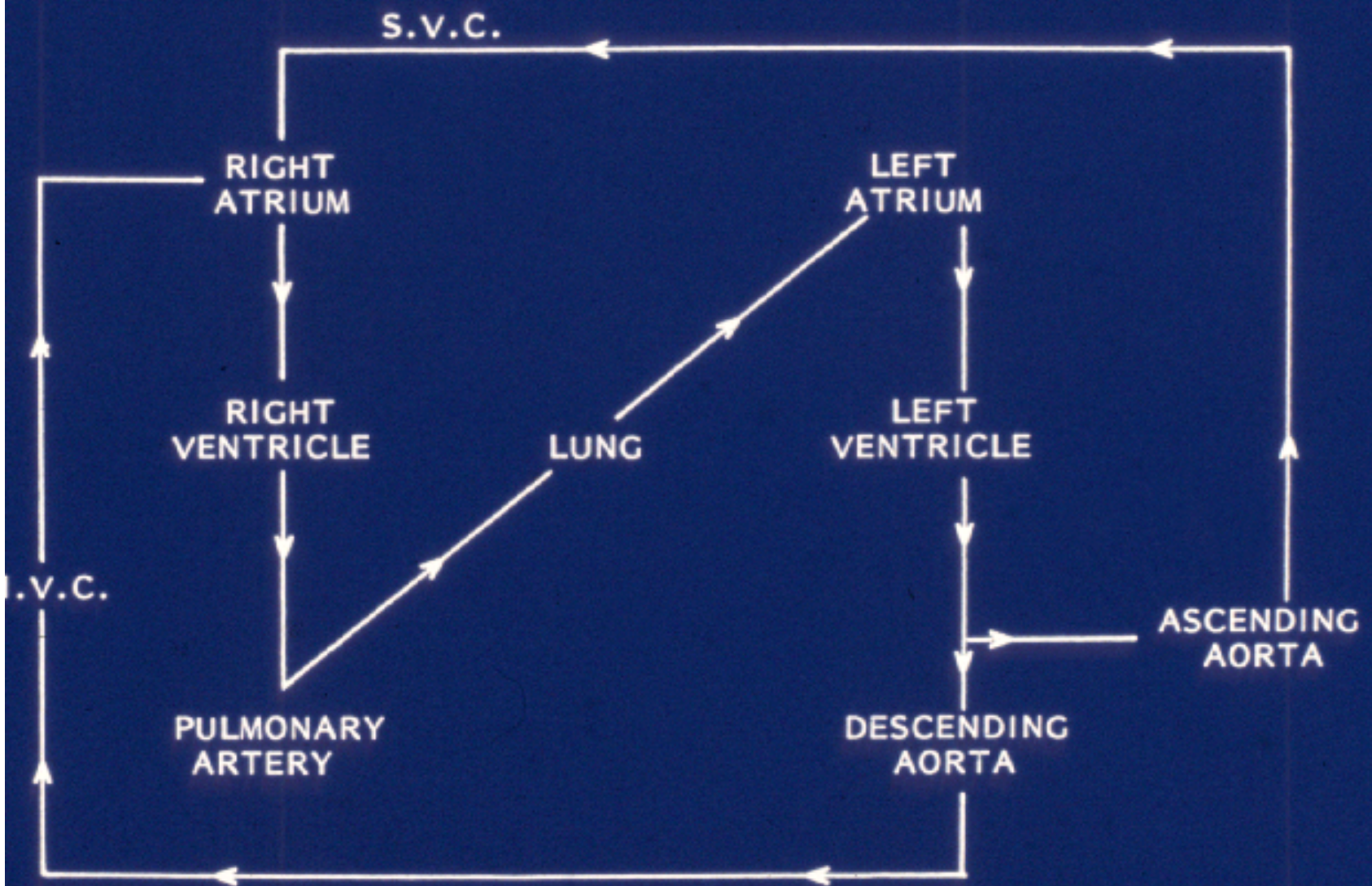




FETAL CIRCULATION



NEONATAL CIRCULATION



Maximus R.

- Born to a 32 year old primagravida at 35 weeks
- Fetal distress (bradycardia) during labor
- C-section-meconium noted at membrane rupture
- Apgar scores 1 and 6 (at 1 and 5 minutes)
- Persistent hypoxia despite FiO₂ 1.0 (pO₂ >700)
- IPPV initiated without significant increase in pO₂
- pH 7.30, pCO₂ 48, pO₂ 38, HCO₃ 22
- Diagnosis: persistent fetal circulation

Composition of Meconium

- Sloughed intestinal epithelial cells
- Swallowed amniotic debris (hair, vernix)
- Squamous epithelial cells
- Pancreatic lipases and proteases
- Bile acids and salts
- Sucus entericus
- White blood cells

Maximus R.

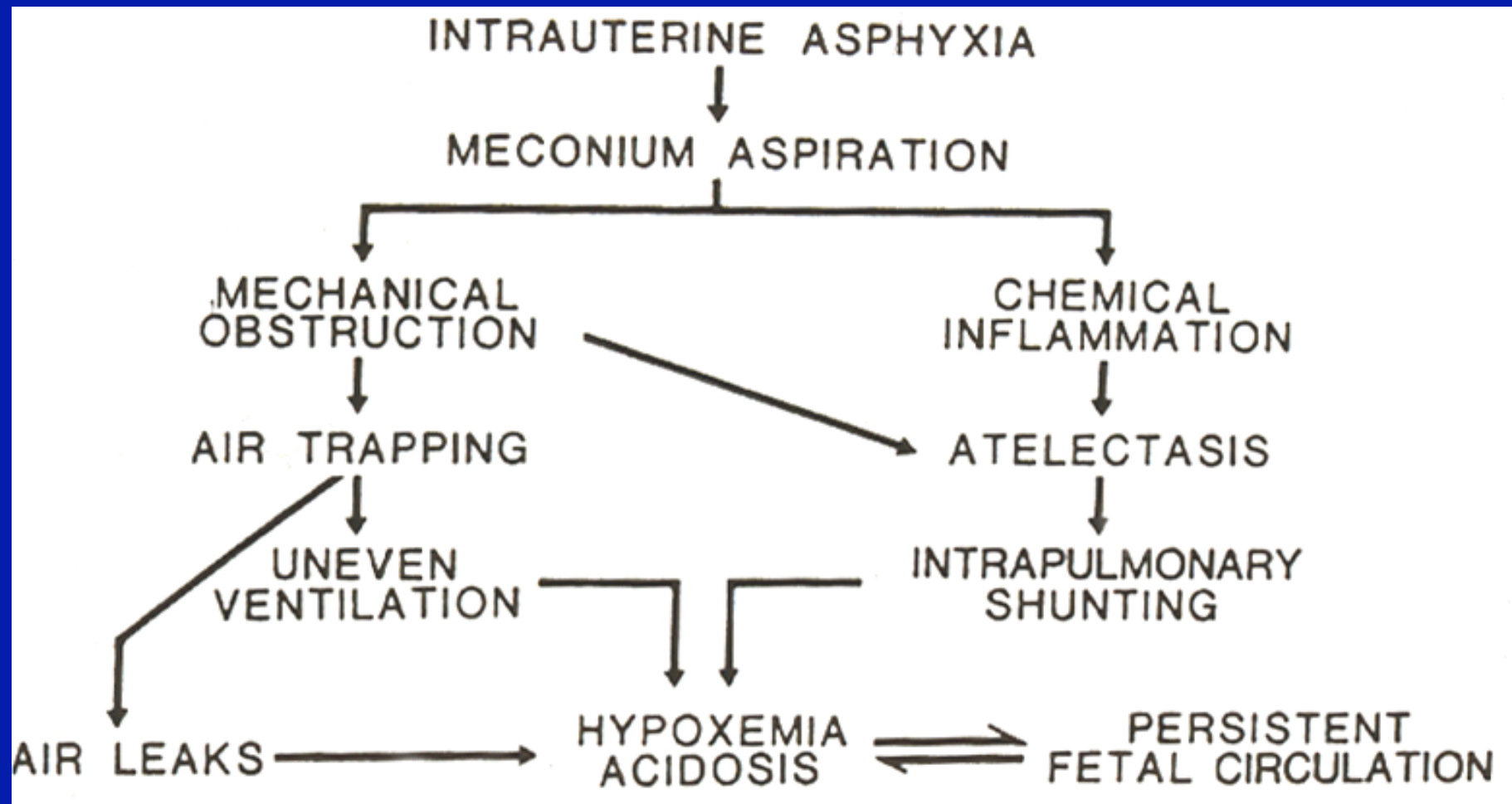
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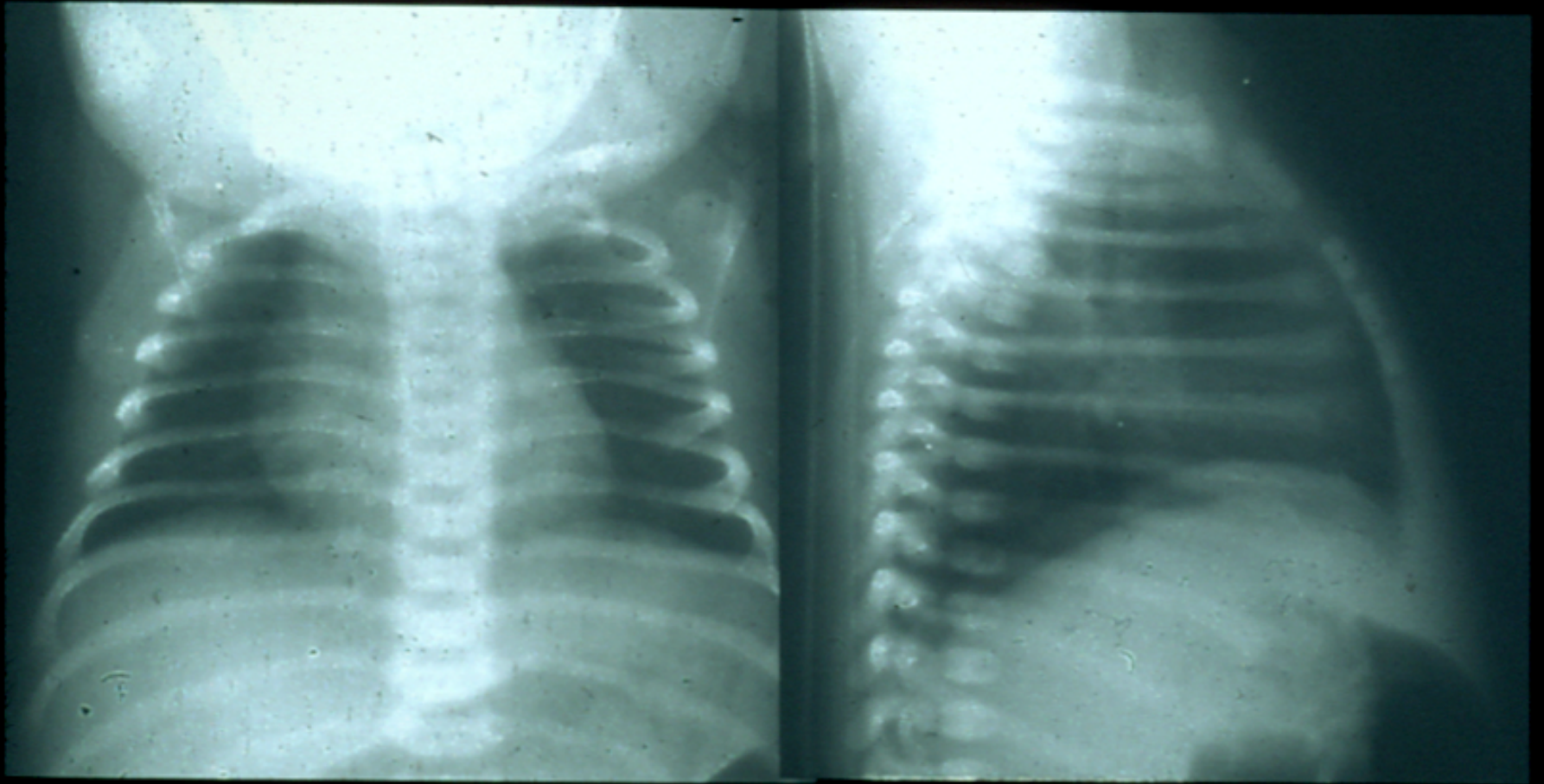
Components of the Apgar Score

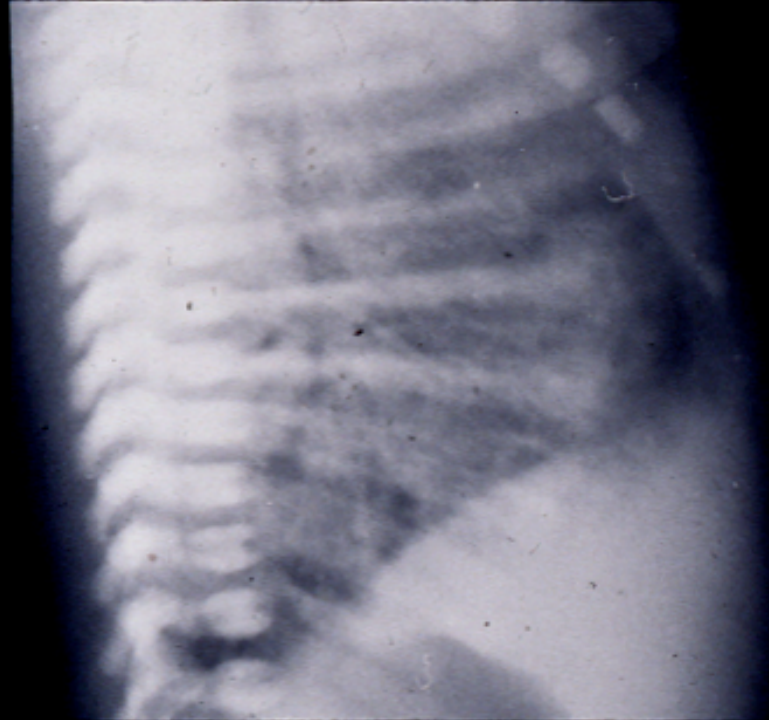
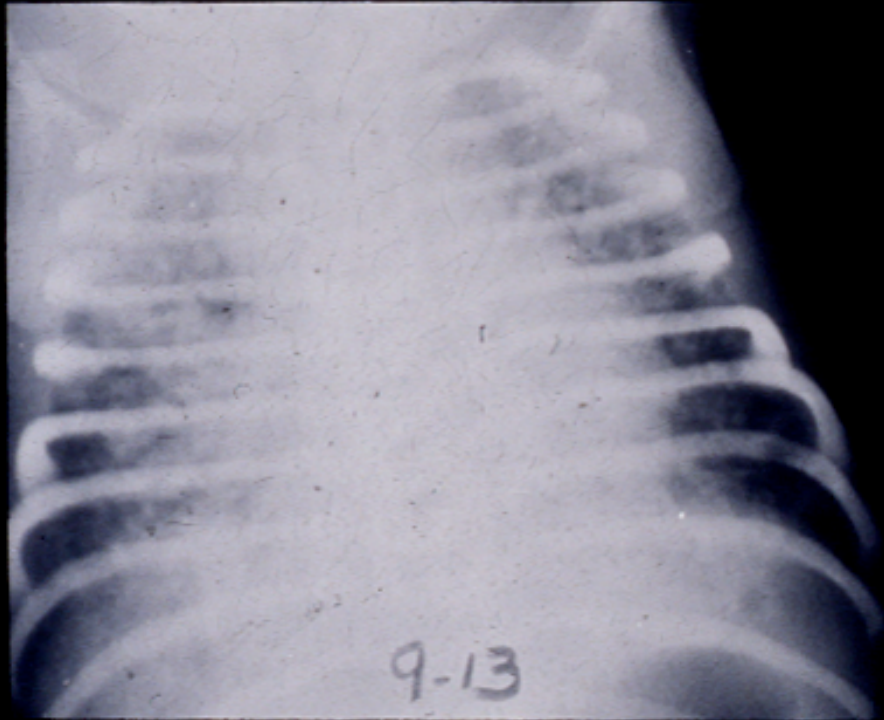
<u>Sign</u>	<u>Score</u>		
	<u>0</u>	<u>1</u>	<u>2</u>
Heart rate	Absent	<100	>100
Respiration	Absent	Irregular	Good cry
Color	Cyanotic	Acrocyanosis	Pink
Tone	Limp	Minimal	Active
Reflex	Absent	Minimal	Active

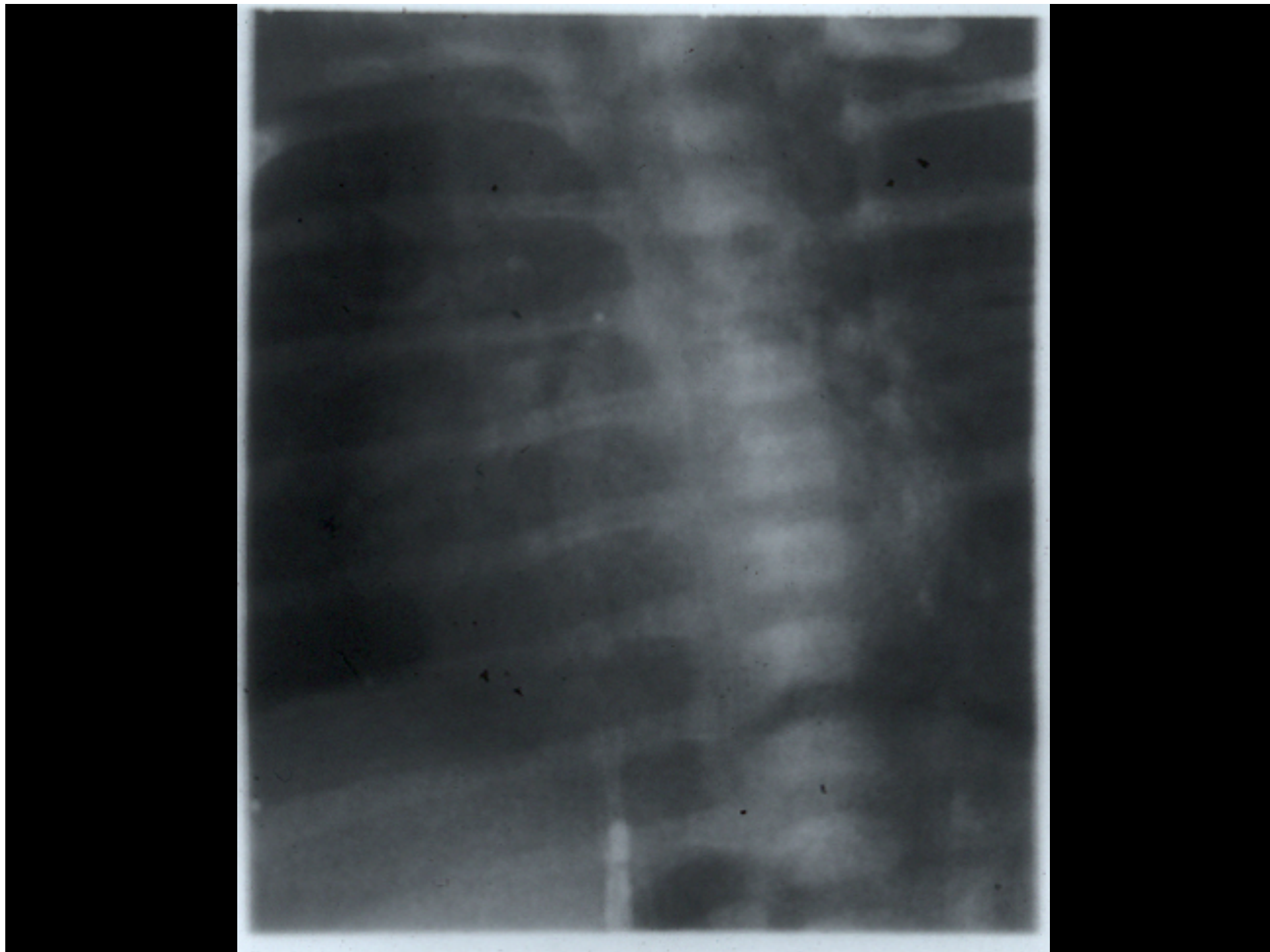
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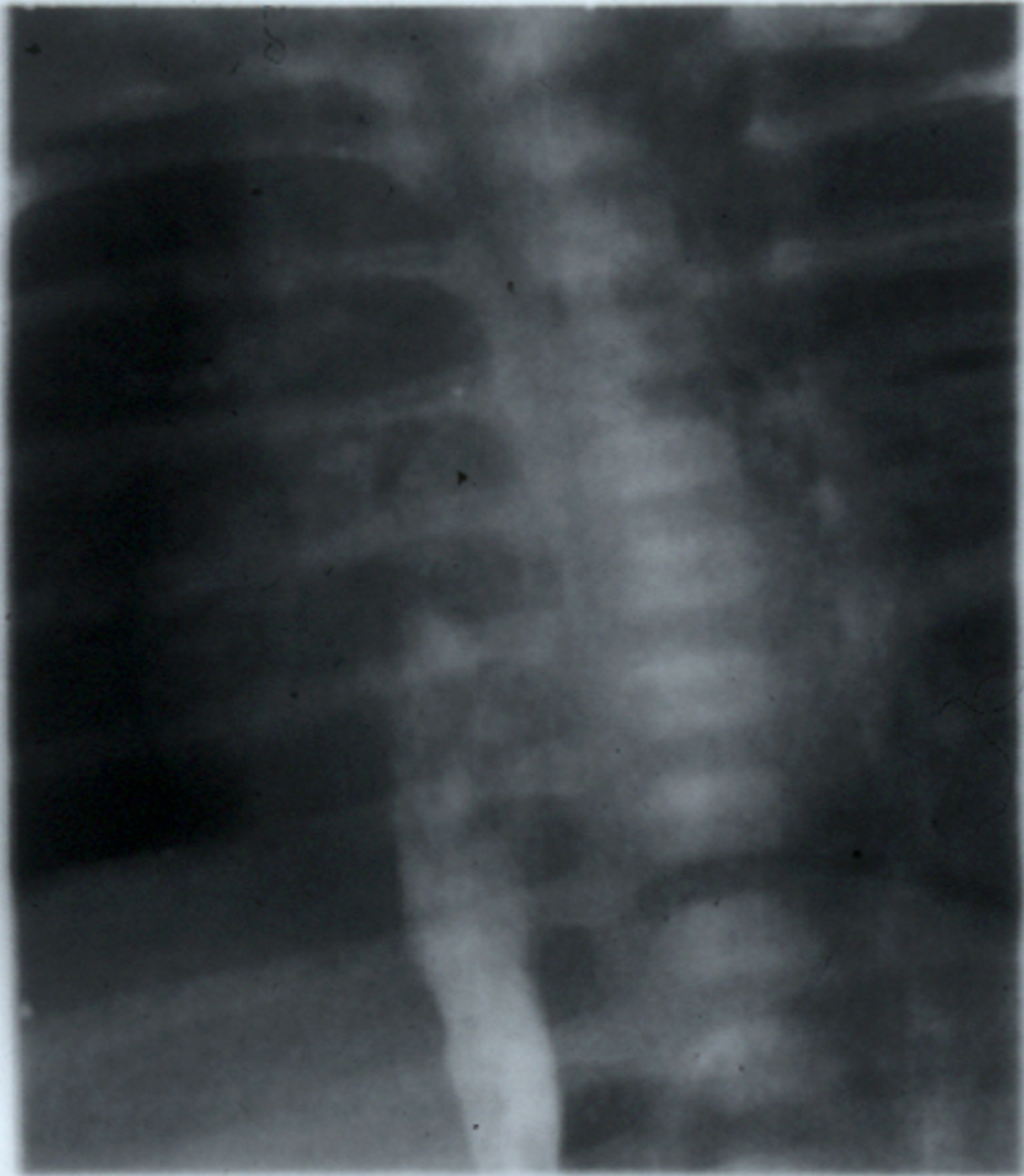
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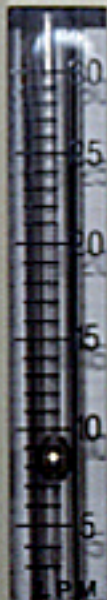








CAUTION: FOR USE BY DR OR ON ORDER OF A PHYSICIAN



0:50

INSPIRATORY TIME

1:10

EXHALATION TIME

1:20

I:E RATIO

117

MEAN AIRWAY PRESSURE

VENTILATOR RATE

- LOW INSPIRATORY PRESSURE
- LOSS OF PEEP/CPAP
- PROLONGED INSPIRATORY PRESSURE
- VENT. INOPERATIVE
- LOW AIR PRESSURE
- LOW O₂ PRESSURE
- RATE/TIME INCOMPATIBILITY
- ALARM SILENCE

VISUAL RESET

ALARM SILENCE



LAMP/BATTERY TEST OFF CPAP CNV/IMV

MANUAL BREATH

MODE Bear

POWER ON **Cub** Infant Ventilator

