

# Transient tachypnea of newborn (TTN)

- Usually occurs after cesarean section due to lack of normal thoracic compression during vaginal delivery
  - Caused by delayed evacuation of fetal lung fluid that creates engorgement of pulmonary lymphatics & capillaries
- Pathology

# Clinical Issues

- Uncommon in premature infants
- More common in cesarean section infants
- Infants usually improve rapidly & are normal on follow-up
- Occasionally need oxygen for several hours
- Respiratory symptoms usually disappear by 3 days
- Some fluid restriction may be helpful

# Stages of pregnancy

stage	starts	ends
Preterm <sup>[44]</sup>	-	at 37 weeks
Early term <sup>[45]</sup>	37 weeks	39 weeks
Full term <sup>[45]</sup>	39 weeks	41 weeks
Late term <sup>[45]</sup>	41 weeks	42 weeks
Postterm <sup>[45]</sup>	42 weeks	-

# X-ray

- Patients usually not intubated
- Findings similar to pulmonary edema
- Diffuse, bilateral, & often symmetric ↑ lung markings
- ± pleural effusion
- Lungs become normal within 24-48 hours
- Diagnosis of exclusion
- Not associated with any chronic condition or lung disease

# Image Interpretation Pearls

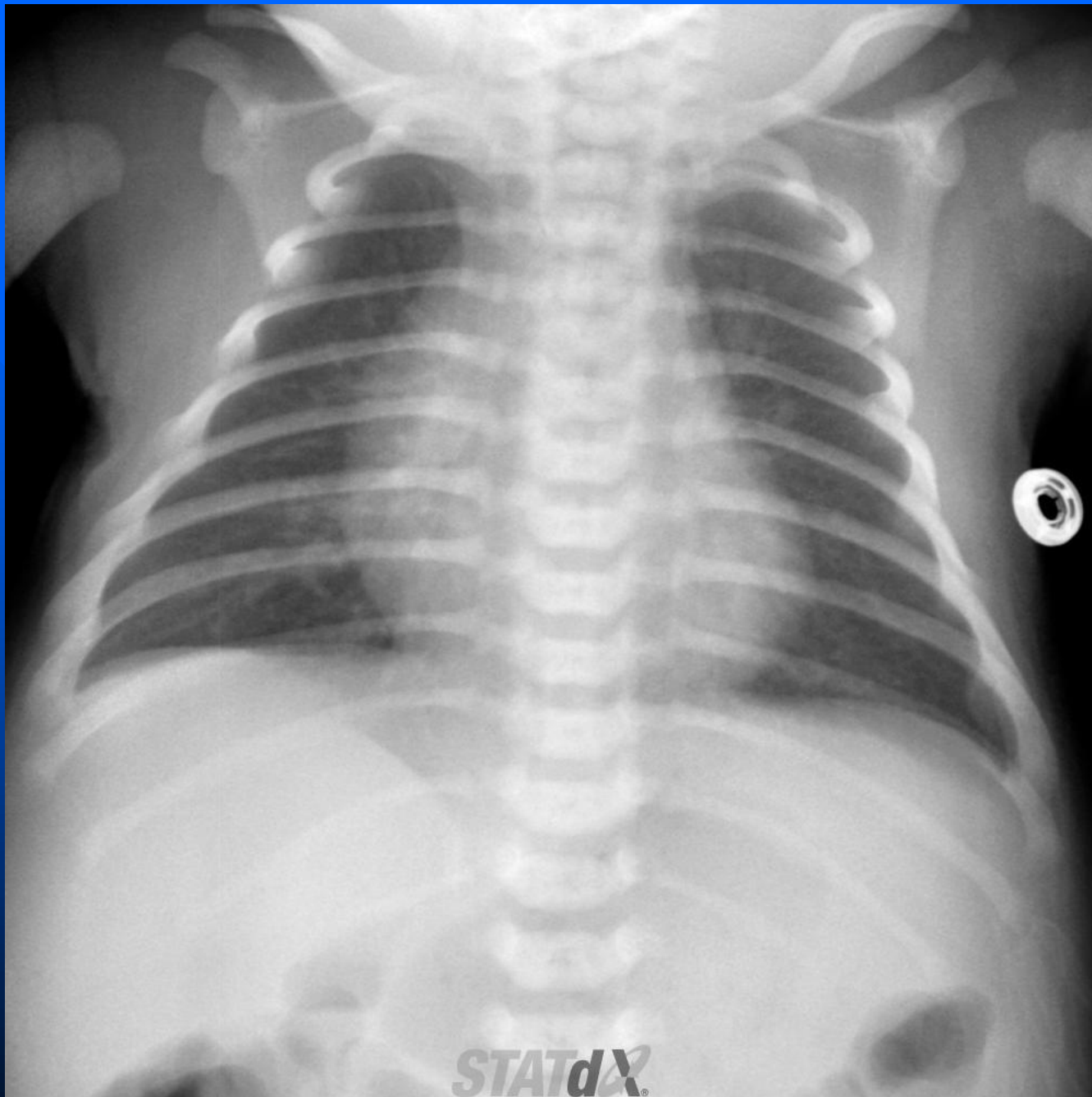
- ↑ lung volumes, coarse streaky opacities, pleural fluid, fluid in fissure
- Diagnosis of exclusion
- No chorioamnionitis, maternal infection, sepsis
- No meconium staining of amniotic fluid
- No premature rupture of membranes

# DDX:

- Hyaline Membrane Disease –
  - usually has a uniform distribution of pulmonary opacities, never has pleural effusions, has a decreased lung volume.
- Meconium Aspiration –
  - usually has nodular non homogeneous densities, may have pleural effusions, usually has an increased lung volume.
- Neonatal pneumonia –
  - usually has non homogeneous densities, may have pleural fluid, usually has a normal lung

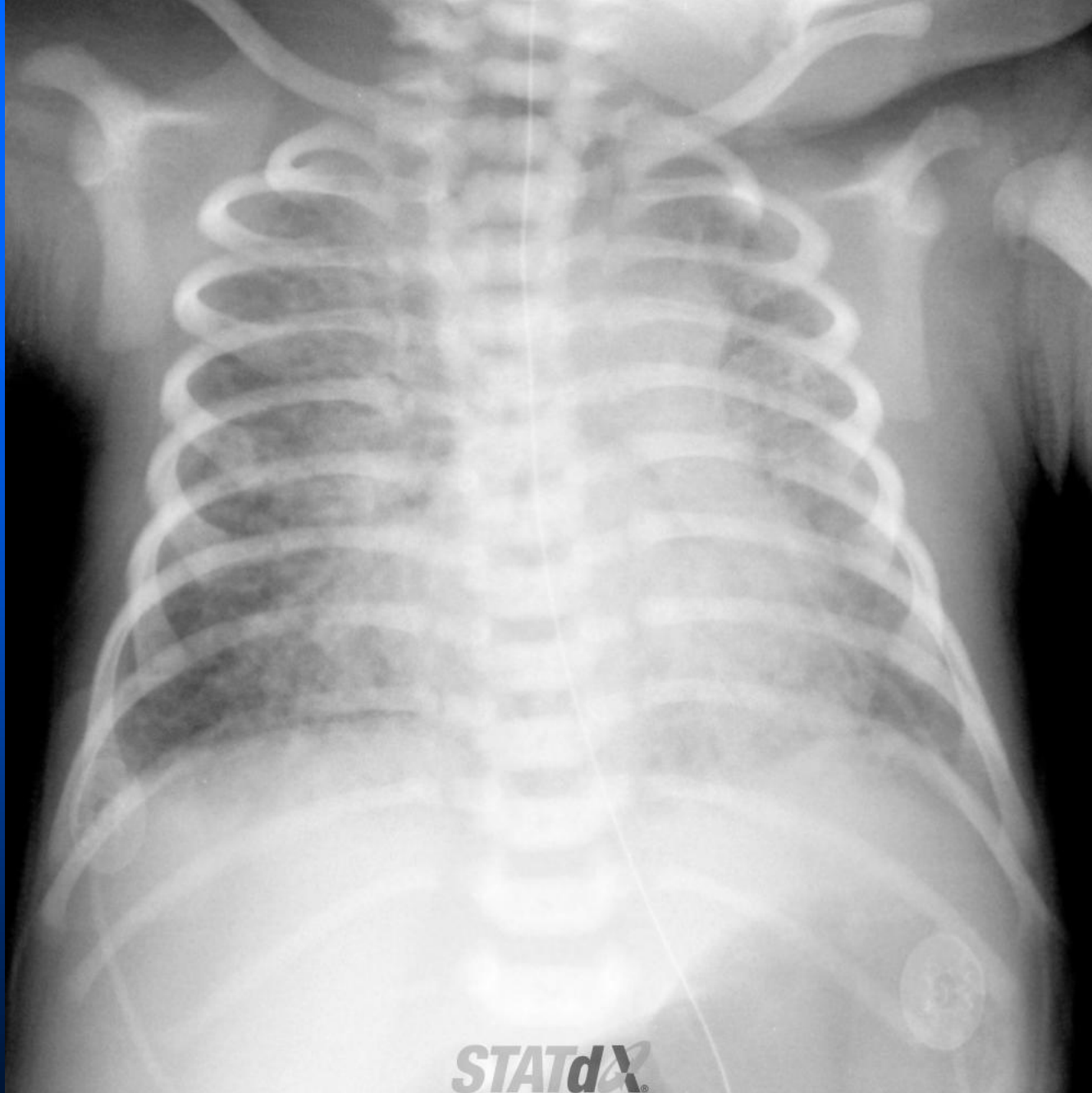


AP radiograph of the chest in a full-term infant with tachypnea demonstrates diffuse bilateral hazy opacities. The findings & symptoms resolved, & the diagnosis of TTN was made.



AP radiograph of the chest shows interval clearing of the previously seen diffuse opacification of the lungs. TTN is a diagnosis of exclusion & cannot be confidently diagnosed radiographically unless the findings resolve.





AP radiograph of the chest in a full-term infant with tachypnea shows diffuse nodular opacities throughout the lungs.