SYSTEMATIC APPROACH TO X-RAYS



1. KEY POINTS

Evaluation of an x-ray

- 1. Systematic approach
- 2. Determine if an abnormality exists
- 3. Describe the abnormality according to its **roentgen signs:**

(size) variation in organ size

(shape) variation in structure shape

(location) alteration from normal position by itself or by something else

(number) variation in structure/organ number

(margin) alteration in margin clarity

(opacity) alteration in structure/organ opacity

4. Consider the list of differentials for the described abnormality

Opacity

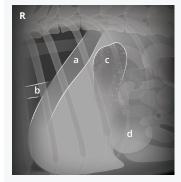
• determined by the physical density, anatomic number & thickness of the tissue



2. DETERMINING WHICH LATERAL

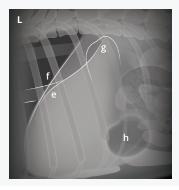
Right lateral

- crura of the diaphragm run in parallel (a)
- caudal vena cava appears to merge out of the crura (b)
- stomach not superimposed with the crura (c)
- soft tissue/fluid opacity in the pylorus (d)



Left lateral

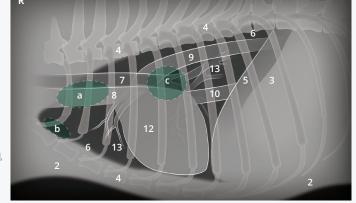
- crura of the diaphragm merge at the level of caudal vena cava (e)
- caudal vena cava appears to go past the crura (f)
- stomach can be superimposed with the crura (g)
- gas opacity in the pylorus (h)

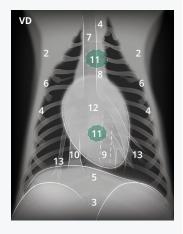


3. INTERPRETATION PARADIGM - THORACIC ANATOMY

Systematic review of structures

- 1. Positioning / coning / exposure
- 2. Subcutaneous structures
- 3. Abdominal structures
- 4. Skeletal structures
- 5. Diaphragm
- 6. Pleural space
- 7. Trachea
- 8. Cranial mediastinum
- 9. Aorta
- 10. Caudal vena cava
- 11. Lymph nodes (cranial mediastinal [a], sternal [b], tracheobronchial [c])
- 12. Heart
- 13. Pulmonary vasculature





4. INTERPRETATION PARADIGM - ABDOMINAL ANATOMY

Systematic review of structures

- 1. Positioning / coning / exposure
- 2. Subcutaneous structures
- 3. Thoracic structures
- 4. Skeletal structures
- 5. Serosal detail
- 6 Liver
- 7. Kidneys
- 8. Spleen
- Bladder
 Prostate
- 11. Stomach
- 12. Large intestine
- 13. Duodenum
- 14. Small intestine
- 15. Sublumbar lymph nodes

