Radiography — the reading roster

READ — ONE ROSTER, EVERY STUDY

R · Reject or accept
technique, positioning, exposure, phase of respiration, labels

E · Edges first
bones, body wall, skin, corners of the film (extra-cavitary)

A · Anatomy in order
same organ sequence every time — never 'look for the lesion'

D · Describe, then decide
opacity · size · shape · margin · number · location · distribution

FIVE OPACITIES (DARK → BRIGHT)

1 Gas black
2 Fat dark grey
3 Soft tissue = fluid mid grey (blood, urine, muscle, tumour all alike)
4 Mineral / bone light grey–white
5 Metal pure white

Silhouette sign: same-opacity structures in CONTACT lose their border. Summation: two overlapping objects fake a 'nodule' — check the second view.

THORAX ORDER

1 Trachea & carina → 2 Cranial mediastinum & oesophagus → 3 Cardiac silhouette (VHS, chambers) → 4 Pulmonary vessels (artery = vein; ≤ 9th rib width / ≤ 4th rib at the 4th rib) → 5 Lung by lobe (alveolar · interstitial · bronchial · vascular) → 6 Pleura, diaphragm, extra-thoracic

Lung patterns Alveolar = air bronchograms/lobar consolidation (cranioventral → aspiration/bronchopneumonia; caudodorsal → non-cardiogenic oedema/haemorrhage; perihilar → cardiogenic oedema, dog) · Interstitial unstructured = hazy, vessels blurred (early oedema, fibrosis, lymphoma, EXPIRATION) · Nodular = mets OR fungal/septic granulomas (soft-tissue opacity; osteomas are mineral; solitary ≠ primary) · Bronchial = donuts & tram-lines · Vascular = arteries (heartworm) / veins (L-CHF)

Pleural Effusion: fissure lines, lung retraction, effaced heart/diaphragm. Pneumothorax: pleural line with NO vessels beyond it (heart-off-sternum is supportive only).

ABDOMEN ORDER + KEY NUMBERS

1 Serosal detail (fat vs fluid/peritonitis) → 2 Liver, spleen, kidneys → 3 Stomach, SI, colon → 4 Bladder, prostate/uterus → 5 Retroperitoneum, nodes, vessels → 6 Spine, pelvis, body wall

Kidney (VD) dog 2.5–3.5 × L2 · cat 2.4–3.0 × L2 (older/neutered 1.9–2.6) **SI diameter** dog < 1.6 × L5 height · cat < 12 mm **Obstruction** two populations of bowel · gravel sign · plication + comma gas (linear FB) **GDV** compartmentalised gas-filled stomach, pylorus dorsal on RIGHT lateral

Stones struvite/CaOx opaque · urate LUCENT, cystine faintly opaque (ultrasound sees all) **Pregnancy** fetal skeletons from day 42–45; count skulls; fetal death = intrafetal gas, Spalding sign

Pyometra coiled tubular soft-tissue opacity between colon and bladder, no skeletons

Bone — aggressive vs benign zone of transition (long/indistinct vs short/sharp) · cortex destroyed vs intact · periosteal reaction irregular/sunburst/Codman vs smooth solid · soft-tissue mass · rapid change

Hips dorsal rim coverage > 50 % · Norberg angle ≥ 105° · reject rotated films (unequal obturator foramina)