

VTNE Self Study: Domain 6

Diagnostic Imaging — 20 Practice Questions

1. What is the primary reason sedation is commonly used for radiographs?

- A. To reduce costs
- B. To minimize patient motion and improve image quality
- C. To shorten appointment time only
- D. To avoid positioning aids

2. Which view is considered orthogonal to a ventrodorsal (VD) radiograph?

- A. Dorsoventral (DV)
- B. Lateral view
- C. Skyline view
- D. Oblique view

3. Which radiation safety principle helps minimize exposure?

- A. Stay close to the beam
- B. Increase exposure time
- C. Time, distance, and shielding
- D. Repeat films unnecessarily

4. A dog becomes highly anxious during thoracic radiographs and repeatedly moves despite restraint. What is the BEST next step?

- A. Continue taking repeated images
- B. Use excessive physical restraint
- C. Discuss sedation with the veterinarian
- D. Skip imaging entirely

5. Which PPE is required during radiography?

- A. Surgical gown only
- B. Lead apron and thyroid shield
- C. Cloth gloves
- D. No PPE if exposure is brief

6. Which positioning is MOST commonly used for abdominal radiographs?

- A. Dorsal recumbency and lateral views
- B. Standing restraint only
- C. Sternal recumbency exclusively
- D. Flexed limb view only

7. Which statement regarding radiation exposure is TRUE?

- A. Radiation exposure is cumulative over time
- B. Exposure only matters during long procedures
- C. Lead aprons eliminate all radiation
- D. Distance from the beam is unimportant

8. A radiograph appears blurry, making anatomy difficult to evaluate. What is the MOST likely cause?

- A. Excess contrast
- B. Motion artifact
- C. Under sedation
- D. Proper positioning

9. Which imaging modality uses sound waves instead of ionizing radiation?

- A. CT
- B. MRI
- C. Ultrasound
- D. Radiography

10. Which contrast study may be used to evaluate the gastrointestinal tract?

- A. Barium study
- B. CBC
- C. Cytology
- D. Urinalysis

11. Which anatomy landmark is commonly centered for thoracic radiographs?

- A. Pelvis
- B. Caudal abdomen
- C. Caudal scapula/heart region
- D. Tail base

12. A patient undergoing contrast radiography begins coughing immediately after administration of oral contrast material. What complication should the technician suspect?

- A. Aspiration risk
- B. Hyperthermia
- C. Dehydration
- D. Motion artifact

13. Which of the following is considered an image artifact?

- A. Proper contrast and exposure
- B. Fingerprints or debris on the detector
- C. Clear anatomy visualization
- D. Correct positioning

14. During radiographic positioning, limbs should generally be:

- A. Positioned naturally regardless of anatomy
- B. Superimposed if possible
- C. Extended to reduce rotation and improve visualization
- D. Held only by hand

15. A technician reviews an abdominal radiograph and notices the patient appears rotated. Which finding MOST suggests rotation?

- A. Symmetrical anatomy
- B. Uneven appearance of paired structures
- C. Sharp image quality
- D. Correct exposure

16. Which patient should receive extra caution regarding radiation exposure?

- A. Healthy adult dog
- B. Pregnant staff member
- C. Adult male technician
- D. Sedated patient

17. What is the purpose of a positioning aid (foam wedges, sandbags)?

- A. Replace proper positioning
- B. Improve restraint while minimizing staff exposure
- C. Eliminate the need for PPE
- D. Prevent sedation

18. A veterinarian requests thoracic radiographs for suspected pleural effusion. The patient is dyspneic and stressed. What is the BEST technician consideration?

- A. Force the patient into dorsal recumbency immediately
- B. Minimize stress and handle gently to avoid respiratory compromise
- C. Delay imaging for several days
- D. Perform imaging without monitoring

19. Which statement about ultrasound is TRUE?

- A. It uses ionizing radiation
- B. Bone and air-filled structures are difficult to evaluate
- C. It replaces radiography entirely
- D. Sedation is always required

20. A radiograph is excessively dark, obscuring detail. What is the MOST likely issue?

- A. Underexposure
- B. Overexposure
- C. Motion artifact
- D. Proper exposure

Answer Key & Explanations

Domain 6: Diagnostic Imaging

1. **B** — Sedation minimizes motion and improves quality
2. **B** — Orthogonal views are typically lateral + VD/DV
3. **C** — Radiation safety = time, distance, shielding
4. **C** — Sedation discussion improves safety and diagnostics
5. **B** — Lead PPE is standard
6. **A** — Abdomen typically includes lateral + VD views
7. **A** — Radiation accumulates over time
8. **B** — Motion commonly causes blur
9. **C** — Ultrasound uses sound waves
10. **A** — Barium is used for GI contrast studies
11. **C** — Thorax centered around heart/caudal scapula region
12. **A** — Aspiration is a concern
13. **B** — Debris or fingerprints create artifacts
14. **C** — Limb extension reduces rotation
15. **B** — Rotation creates asymmetry
16. **B** — Pregnant staff require additional protection
17. **B** — Positioning aids reduce manual restraint exposure
18. **B** — Dyspneic patients require gentle handling
19. **B** — Bone and gas limit ultrasound evaluation
20. **B** — Excessively dark = overexposed

Scoring Guide

18–20 Correct: VTNE Ready | 15–17 Correct: Strong Understanding | 12–14 Correct: Review Needed in Key Areas | Below 12: Focused Study Recommended