

## Chapter 1 General Principles of Musculoskeletal Imaging

1. A conventional radiograph is the best modality for screening for:
  - A. Metastatic tumors
  - B. Subtle fractures
  - C. Bone or joint abnormality
  - D. Soft tissue lesions
2. "Routine series" of radiographs are ordered to:
  - A. Complete the physical examination
  - B. Provide the most visualization of the anatomy with the least number of radiographs
  - C. Provide a baseline of a pathological condition prior to starting treatment
  - D. Standardize data for future research
3. The following densities are correctly arranged in order of increasing radiodensity:
  - A. Air, fat, water, bone
  - B. Fat, air, water, bone.
  - C. Air, water, fat, bone
  - D. Bone, water, fat, air
4. Why are two radiographs, made at right angles to each other, a standard of clinical practice?
  - A. To account for any distortion on one radiograph
  - B. To visualize three dimensions of the anatomy
  - C. To scout for what advanced modality to order next
  - D. To screen for additional pathological conditions
5. What does the philosophy ALARA mean?
  - A. As low as reasonably achievable
  - B. As lucky as a radiologist can accomplish
  - C. As low an amount of radioactivity absorbed
  - D. A philosophy replaced by MPD (maximal permissible dose)
6. Contrast media is used in radiography to:
  - A. Outline the position of metallic hardware
  - B. Provide protection from radiation to sensitive tissues
  - C. Determine if a pathological condition is acute or chronic
  - D. Allow visualization of soft tissues not evident on conventional radiographs
7. The most common projections in routine radiographic examination of the appendicular skeleton and spine are the:
  - A. Superior and inferior
  - B. Coronal, sagittal, and axial
  - C. Cephalad and caudal
  - D. Anteroposterior, lateral, and oblique

8. Accepted convention for viewing radiographs is to look at the image as if the patient were facing the viewer.

A. True

B. False

9. Radiographic distortion is the difference between the actual object and its recorded image. Every radiograph will have a degree of size or shape distortion.

A. True

B. False

10. A major advantage of the bone scan is how sensitive it is to increased bone metabolism. A major disadvantage of the bone scan is:

A. Lack of specificity to the pathological condition

B. It can only show cortical bone, not cancellous bone

C. It is unable to visualize the entire skeleton in one exam

D. It can show only structural, not physiological, changes