



## **Fleitz Continuing Education**

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# ***Radiology Secrets-24*** ***3<sup>rd</sup> Edition Textbook*** ***24 Category A+ CE***

***Approved for 24 Category A+ CE Credits by the***

***American Society of Radiologic Technologists (ASRT)***

***Course Approval Start Date 12/15/05***

***Course Approval End Date 01/01/14***

***Florida Radiologic Technology Program***

***Category 00-Technical CE Credits Provider #3200615***

***Course Approval Start Date 11/03/05***

***Course Approval End Date 01/31/14***

***Iowa Department of Public Health Bureau of Radiological Health***

***24 Category A CE Credits for general x-ray operators***

***5 Category A CE specific for Computed Tomography***

***Course Approval Start Date 01/10/06***

***Course Approval End Date 01/01/14***

***Kentucky Radiation Operator Certification Program***

***Course Approval Start Date 2005***

***Course Approval End Date 01/01/14***

***\*\*RT's and limited radiographers may complete either A or A+ CE.***

***Registered radiologic assistants (RRAs) must complete A+ CE.\*\****

***Radiology Secrets-24 Homestudy Course  
Based on 3<sup>rd</sup> Edition Radiology Secrets Plus***

***Course Description***

This homestudy course titled ***Radiology Secrets*** provide current information about the important key points about each subspecialty of radiography. The course introduces the most common radiology imaging considerations in general and specifically about the following:

Introduction to Imaging Modalities  
Breast Imaging  
Cardiac and Noninvasive Vascular Imaging  
Gastrointestinal Tract  
Genitourinary Tract  
Interventional Radiology  
Musculoskeletal Radiology  
Neuroradiology  
Nuclear Radiology  
Pediatric Radiology  
Thoracic Radiology  
Ultrasonography  
Diagnostic Radiology as a Profession

***Objectives:*** Upon completion of this homestudy course, the participant will:

1. Identify general radiology secrets and key facts from each of the subspecialties of radiology listed above.
2. Recognize the importance of diagnostic radiology, nuclear medicine, computed tomography, and magnetic resonance imaging facts.
3. Given clinical signs and symptoms, differentiate between disorders, conditions, and pathology that are congenital and developmental in nature and specific conditions related to the radiology subspecialties listed above.
4. Define common terminology related to radiology subspecialties.

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### **Homestudy Course Directions**

#### **Directions**

- To complete this course read the reference included with your homestudy course.
- We suggest that you read the reference prior to answering the post-test questions.
- Complete the post-test questions. If you have difficulty in answering any question, refer to the reference.

#### **Complete the Answer Sheet and Course Evaluation**

- Complete the post-test and record your responses on the answer sheet and complete the course evaluation. You may mail your answer sheet to 6511 Glenridge Park Place, Suite 6, Louisville, KY 40222.
- **If you mail your answer sheet and course evaluation, retain a copy before mailing.**
- **We request that you do not fax your answer sheet unless you are within two weeks of your expiration date. If you fax your answer sheet and course evaluation, obtain verification from the machine that the fax was delivered or call our office for verification.**

**OR**

- Use **the Online Answer Sheet** on our website homepage at [www.x-raylady.com](http://www.x-raylady.com). After completing the ONLINE Answer sheet, just hit submit to send via email. Remember to also complete the online course evaluation.

#### **Grading and Issuance of a Certificate**

Your answer sheet will be scored within 1-2 days of arrival in our office. To obtain continuing education credit, you must have a cumulative average score of at least 75%. **Verification of awarded continuing education for this course will be submitted to the following states: KY, IA, FL.** For ARRT and all other states, please self-report to the state radiation certification agency in your state and the ARRT and any other organizations.

You will be awarded a certificate verifying satisfactory completion of this course, or notification if you do not. **We are now emailing certificates so be sure to include your email address.** Please let us know if you prefer to receive a copy in the mail and allow 4-5 days to receive your copy.

#### **Need Additional Information**

You may call our office (502) 425-0651 voice mail. Our office hours are 9 a.m. –6 p.m. Monday through Friday. The office operates on Eastern Standard Time and is closed on major holidays. You may also e-mail us at [xraylady@insightbb.com](mailto:xraylady@insightbb.com). For information, about courses or to order online, visit our web site at [www.x-raylady.com](http://www.x-raylady.com).

**The X-ray Lady Refund and Exchange Policy, Certificate Replacement Policy, and other related policies are included in each course.**

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## **Earning CE Credit**

***This activity may be available in multiple formats or from different sponsors. Continuing education credit can be awarded only once for the same activity.***

Radiology Secrets, 3<sup>rd</sup> Edition Post-Test

SECTION I

1. **All** of the following make the film darker, **except**:
  - a. increasing kV
  - b. increasing mAs
  - c. structures containing calcium
  - d. structures containing air
  
2. The **most** sensitive imaging modality for detection of early osteonecrosis is:
  - a. plain radiography
  - b. computed tomography (CT)
  - c. magnetic resonance imaging (MRI)
  - d. ultrasound
  
3. Film contrast is primarily dependent on:
  - a. kV
  - b. mAs
  - c. source to image distance (SID)
  - d. tube filtration
  
4. Bremsstrahlung radiation refers to:
  - a. tube filtration
  - b. heel effect
  - c. braking radiation
  - d. focal spot size
  
5. About \_\_\_% of the electrical energy entering the x-ray tube is converted to x-rays.
  - a. 1
  - b. 27
  - c. 65
  - d. 99
  
6. If one doubles the distance between oneself and the x-ray tube, x-ray exposure decreases by a factor of:
  - a. 2
  - b. 4
  - c. 6
  - d. 8

7. **All** of the following are **true** regarding focal spot size, **except**:
- is the source of x-rays
  - a large focal spot produces a sharper image than a small focal spot
  - a small focal spot is used for mammography
  - a large focal spot is used in fluoroscopy
8. Mammography uses lower kV and higher mA compared with the technique for chest and abdominal examinations.
- True
  - False
9. According to the text, the possible clinical indication for a small bowel follow-through study is to rule out:
- stricture
  - duodenal ulcer disease
  - Crohn's disease
  - polyp
10. Ultrasound (US) is an imaging technique that uses:
- magnetic particles
  - electrons
  - gamma rays
  - sound waves
11. In ultrasound imaging, echogenic or hyperechoic areas are viewed as dark areas.
- True
  - False
12. Doppler US is used primarily to evaluate:
- renal masses
  - breast nodules
  - flowing blood in blood vessels
  - mediastinal lymph nodes

13. In helical CT the longitudinal distance (in millimeters) that the table moves during one revolution of the x-ray tube is called the:
- a. pitch
  - b. roll
  - c. axis
  - d. resonance
14. A voxel is a pixel with \_\_\_ dimensions.
- a. two
  - b. three
  - c. six
  - d. ten
15. In MRI, differential relaxation rates of \_\_\_ nuclei are used to create the image.
- a. sodium
  - b. potassium
  - c. hydrogen
  - d. cesium
16. During MRI imaging, the measure of relaxation time in the transverse plane is referred to as T \_\_\_.
- a. 4
  - b. 3
  - c. 2
  - d. 1
17. A 1.5-tesla (T) is \_\_\_ times the strength of the earth's magnetic field.
- a. 2,500
  - b. 5,000
  - c. 15,000
  - d. 30,000
18. **All** of the following are contraindications to the use of MRI, **except**:
- a. extreme claustrophobia
  - b. pacemaker and defibrillator
  - c. cochlear implant
  - d. kidney transplant



19. The **most** common side effect(s) of gadolinium chelates include(s):

1. mild headache
2. hematuria
3. nausea
4. metallic taste

**possible responses**

- a. 1 only
- b. 1 and 4
- c. 2 and 3
- d. 2, 3, & 4

20. Nuclear medicine is referred to as \_\_\_ imaging.

- a. transmission
- b. conversion
- c. emission
- d. acoustic

21. **All** of the following are common clinical indications for performing nuclear medicine imaging, **except**:

- a. stress fracture
- b. pulmonary embolism
- c. acute cholecystitis
- d. gastrointestinal bleed

22. A positron emission tomography (PET) scan can be used to:

1. detect malignant tumors
2. determine cancer stage
3. deliver treatment for cancer
4. judge effectiveness of cancer treatments

**possible responses**

- a. 1 and 2
- b. 2 and 3
- c. 3 and 4
- d. 1, 2, & 4

23. The difference between computed radiography (CR) and digital radiography (DR) is DR systems completely eliminate the plate and cassette and acquire digital images directly using flat-panel detectors.

- a. True
- b. False

## SECTION II

24. The American College of Radiology (ACR) recommends that women begin getting mammograms at age \_\_\_ and annually thereafter.
- 25
  - 30
  - 40
  - 45
25. The view which visualizes the most breast tissue is the:
- CC
  - MLO
  - ML
  - SIO
26. **All** of the following are **true** regarding mammography, **except**:
- sensitivity seems to decrease as the glandularity of the breast tissue increases
  - the false-negative rate is usually reported to be in the range of 25-30%
  - a diagnostic mammogram is performed when the patient has a history of breast cancer or presents with a breast-related complaint
  - in the United States there are no guidelines for when screening mammography should stop
27. Some of the risk factors for developing breast cancer include:
- late menarche
  - late menopause
  - first-degree relative with breast cancer
  - increasing age
- possible responses**
- 1 and 3
  - 2 and 4
  - 2, 3, & 4
  - 1, 2, 3, & 4

28. **All** of the following are **true** regarding diagnostic mammography, **except**:
- a. the BIRADS categories are used for reporting results
  - b. is indicated for asymptomatic patients
  - c. in patients who have had breast conservation, the post biopsy changes may limit sensitivity of mammography
  - d. a sonographic evaluation is necessary to complete the evaluation in a patient presenting with a palpable mass but a negative mammogram
29. The **most** common etiology for bloody nipple discharge is:
- a. benign papilloma
  - b. invasive ductal carcinoma
  - c. tubular carcinoma
  - d. lymphoma
30. Male breast cancer accounts for less than \_\_\_% of all breast cancers.
- a. 30
  - b. 15
  - c. 5
  - d. 1
31. The imaging gold standard for evaluating an implant rupture is:
- a. plain radiography
  - b. CT
  - c. MRI
  - d. ultrasound
32. Benign sonographic breast lesion features, include:
- 1. ellipsoid shape
  - 2. hyperechogenicity
  - 3. markedly hypoechoic
  - 4. spiculations
- possible responses**
- a. 1 and 2
  - b. 3 and 4
  - c. 1, 2, & 3
  - d. 2, 3, & 4

33. Breast MRI is the **most** accurate imaging test:
- a. when nipple discharge is present in a pregnant patient
  - b. to evaluate the integrity of breast implants
  - c. for routine breast screening and to evaluate breast cancer
  - d. primarily on male patients

**SECTION III**

34. The **most** sensitive imaging technique for the detection of myocardial infarction is:
- a. ultrasound
  - b. CT with contrast
  - c. plain radiography
  - d. cardiac MRI with delayed post gadolinium imaging
35. The **most** likely tumor to metastasize to the heart is:
- a. lymphoma
  - b. melanoma
  - c. lung cancer
  - d. osteosarcoma
36. As an aneurysm becomes larger, it becomes more prone to rupture according to \_\_\_ law.
- a. Eisenmenger's
  - b. Galeazzi's
  - c. Laplace's
  - d. Ladd's
37. The primary methods for imaging pulmonary embolus (PE) includes:
- 1. plain radiography
  - 2. pulmonary arteriography
  - 3. nuclear ventilation and perfusion
  - 4. CT pulmonary angiography
- possible responses**
- a. 1 and 4
  - b. 2 and 3
  - c. 3 and 4
  - d. 2, 3, & 4

38. The term orthodeoxia is used to describe:
- blunting of the costophrenic angles
  - pleural effusion
  - pleural space decompression
  - position-dependent oxygen desaturation

**SECTION IV**

39. The preferred terms for a flat plate of the abdomen includes:

- KUB
- plain film of the abdomen
- plain radiograph of the abdomen
- plain abdominal radiograph

**possible responses**

- 1 and 2
  - 2 and 4
  - 3 and 4
  - 1, 3, & 4
40. Images obtained with the patient in a lateral decubitus position are used to demonstrate air-fluid levels or free intraperitoneal gas.

- True
- False

41. Plain radiographs are helpful when the patient requires:

- serial studies
- follow-up in determining positions of various tubes placed in the abdomen
- abdominal film obtained with portable radiographic equipment
- extreme speed

**possible responses**

- 1 and 3
- 1 and 4
- 1, 2, & 3
- 1, 2, 3, & 4

42. The Rigler sign describes:
- pneumoperitoneum
  - ascites
  - adynamic ileus
  - bowel ischemia
43. A patient should be positioned in an erect or decubitus position for about \_\_\_ before a radiograph is obtained to look for "free intraperitoneal gas".
- 1 hour
  - 45 minutes
  - 10 minutes
  - 2 minutes
44. The highest percentage (95%) of gallstones are detected by:
- plain radiography
  - CT
  - MRI
  - ultrasound
45. During an upper gastrointestinal (GI) series, the organs studied are the:
1. ileum
  2. duodenum
  3. stomach
  4. esophagus
- possible responses**
- 1 and 2
  - 2 and 3
  - 1, 2, & 3
  - 2, 3, & 4
46. **All** of the following are **true** regarding double-contrast GI examinations, **except**:
- uses high-density barium and air/carbon dioxide
  - are easier to perform in sick patients who cannot turn
  - are sensitive for detecting mucosal abnormalities
  - are also known as an "air contrast upper GI series" or a biphasic upper GI series

47. During a small bowel follow-through study, the radiologist examines the patient at \_\_\_ to \_\_\_ minute intervals.
- a. 75-120
  - b. 60-80
  - c. 45-50
  - d. 15-30
48. The **most** important radiologic predictor of malignancy arising in a polyp is:
- a. size
  - b. location
  - c. radiopacity
  - d. radiolucency
49. Polypoid cancers are most commonly found in the:
- a. small bowel
  - b. transverse colon
  - c. splenic flexure
  - d. rectum or cecum
50. **All** of the following are seen in Crohn's disease, **except**:
- a. right-sided
  - b. symmetric
  - c. severe perianal disease
  - d. sinus tracks and fistulae
51. In the United States, the **most** common cause of splenic calcification is:
- a. Epstein-Barr virus
  - b. Gaucher's disease
  - c. histoplasmosis
  - d. portal hypertension
52. Primary (genetic) hemochromatosis is also referred to as:
- a. bronze diabetes
  - b. von Hippel-Lindau
  - c. Wermer's syndrome
  - d. steeple sign

53. Most patients with acute cholecystitis present with right upper quadrant pain and tenderness known as \_\_\_\_ sign.
- a. Arnold's
  - b. Murphy's
  - c. Bouchard's
  - d. Caffey's
54. The **most** common cause of small bowel obstruction is:
- a. Crohn's disease
  - b. diverticulosis
  - c. colitis
  - d. adhesions secondary to prior surgery

**SECTION V**

55. An intravenous urogram is a radiographic study that provides both anatomic and functional information about the urinary tract.
- a. True
  - b. False
56. A cystogram is tailored to evaluate the:
- a. urethra
  - b. ureters
  - c. urinary bladder
  - d. pelvic veins
57. The entire female \_\_\_\_ is well demonstrated on a VCUG.
- a. ovary
  - b. kidney
  - c. urinary bladder
  - d. urethra
58. The risks for renal cell carcinoma (RCC) includes:
- 1. cigarette smoking
  - 2. excessive alcohol use
  - 3. exposure to petroleum products and asbestos
  - 4. hypertension and obesity
- possible responses**
- a. 1 and 2
  - b. 3 and 4
  - c. 1, 2, & 3
  - d. 1, 3, & 4



59. Patient's with horseshoe kidney have a greater risk of acquiring **all** of the following, **except**:
- a. Wilms' tumor
  - b. pheochromocytoma
  - c. renal cell carcinoma
  - d. ureteropelvic junction obstruction
60. Nabothian cysts are found in the:
- a. kidney
  - b. urinary bladder
  - c. uterus
  - d. cervix
61. The imaging modality of choice for the assessment of the fetus is:
- a. plain radiography
  - b. ultrasound
  - c. CT
  - d. MRI
62. The **most** common type of female genital cancer affects the:
- a. endometrium
  - b. uterus
  - c. ovaries
  - d. vulva
63. An abnormal prostate-specific antigen (PSA) value is greater than:
- a. 1
  - b. 4
  - c. 8
  - d. 10
64. **All** of the following are complications of cryptorchidism, **except**:
- a. are more likely to torsion
  - b. higher incidence of impotency
  - c. increased risk of malignancy
  - d. high-than-baseline risk of infertility

65. Testicular cancer is the **most** common solid neoplasm in men over age 70.
- a. True
  - b. False
66. The relief of fear or anxiety without alteration of awareness is referred to as:
- a. analgesia
  - b. anesthesia
  - c. anxiolysis
  - d. amnesia

**SECTION VI**

67. Road-mapping is an imaging technique present on many modern \_\_\_ units:
- a. radiography
  - b. fluroscopy
  - c. CT
  - d. MRI
68. According to the Rutherford Becker classification system, a grade 1, category 1 refers to:
- a. major tissue loss
  - b. rest pain
  - c. severe claudication
  - d. mild claudication
69. Chronic, lower extremity ischemia due to aortoiliac obstruction is \_\_\_ syndrome.
- a. Zellweger's
  - b. Leriche's
  - c. Stein-Leventhal's
  - d. Eisenmenger's

70. Indications for ureteral stenting include:

1. urinary tract calculi
2. interpolar kidney
3. benign ureteral stricture
4. bladder outlet obstruction in malignant ureteral obstruction

**possible responses**

- a. 1 and 3
- b. 2 and 3
- c. 1, 2, & 3
- d. 2, 3, & 4

**SECTION VII**

71. A/An \_\_\_ type fracture occurs when a fragment of bone is pulled off at a site of insertion of muscles, ligaments, and tendons.

- a. comminuted
- b. closed
- c. avulsion
- d. occult

72. The "Y" view is a special radiographic view of the:

- a. distal radius
- b. elbow
- c. carpal bones
- d. shoulder

73. The **most** commonly fractured carpal bone is the:

- a. capitate
- b. scaphoid
- c. hamate
- d. pisiform

74. The Swimmer's view best demonstrates the:

- a. anterior cruciate ligament
- b. odontoid process
- c. lower cervical vertebrae
- d. anterior-inferior glenoid rim

75. The Cobb angle is one of two methods used to measure the severity of:
- osteomyelitis
  - scoliosis
  - herniation of disc material
  - spondylolysis
76. A herniation of intervertebral disc material through the vertebral end plate is a \_\_\_ node.
- Schmorl's
  - Ellison's
  - Whipple's
  - Mirizzi's
77. The radiographic inverted Napoleon hat sign may be seen on the anteroposterior view of the:
- forearm
  - chest
  - cervical spine
  - lumbar spine or pelvis
78. Rickets is also known as:
- osteoporosis
  - osteomalacia
  - osteopenia
  - osteoarthritis
79. Approximately \_\_\_ to \_\_\_% of bone must be lost to appreciate a change on radiographic examination.
- 2-5
  - 15-20
  - 30-40
  - 50-60
80. Rheumatoid arthritis (RA) commonly causes atlantoaxial (C1-C2) subluxation.
- True
  - False
81. Classically, gout involves the:
- atlantoaxial joint
  - femoral neck
  - humeral head
  - first metatarsophalangeal joint

82. Radiographically evident bone changes due to osteomyelitis often take \_\_\_ to \_\_\_ days to develop.
- 1-2
  - 3-5
  - 7-14
  - 15-20
83. The eponym of tuberculous spondylitis is \_\_\_ disease.
- Pott's
  - Ewing's
  - Barton's
  - Bennett's
84. The **most** common primary malignant bone tumor in adults is:
- chondroblastoma
  - giant cell tumor
  - multiple myeloma
  - clear cell chondrosarcoma
85. A primary bone tumor having the characteristic history of pain at night that is relieved by aspirin is:
- chondrosarcoma
  - osteoid osteoma
  - fibrous dysplasia
  - osteosarcoma
86. **All** of the following are MRI signs of tendon injury, **except**:
- tendon enlargement
  - continuity of the tendon fibers
  - increased intrinsic signal intensity on T1 weighted proton density-weighted, and T2-weighted images
  - fluid and edema surrounding the tendon
87. A King James lesion is another name for a/an:
- ganglion cyst
  - avulsed ulnar collateral ligament
  - tenosynovitis
  - injury to the ulnar collateral ligament of the first metacarpal joint

88. For evaluation of suspected osteoarthritis in the hip, the best imaging modality is:
- a. ultrasound
  - b. CT
  - c. MRI
  - d. plain radiography
89. The clinical presentation of a patient with a meniscal tear is pain and locking of the knee.
- a. True
  - b. False
90. The **most** commonly injured ankle tendon is the:
- a. posterior tibialis
  - b. flexor digitorum longus
  - c. Achilles
  - d. Hallucis
91. Of the bones of the foot and the ankle joint, the **most** likely to develop avascular necrosis is the:
- a. metatarsals
  - b. talus
  - c. calcaneus
  - d. navicular

### **SECTION VIII**

92. The modality of choice for imaging acute head trauma is:
- a. plain radiography
  - b. CT
  - c. MRI
  - d. ultrasound
93. In adults, ischemic stroke accounts for approximately 80% of vascular accidents.
- a. True
  - b. False

94. The best modality for imaging the spinal cord, bone marrow, and epidural and subdural spaces is:
- a. plain radiography
  - b. CT
  - c. MRI
  - d. ultrasound
95. Approximately 90% of lumbar disc extensions beyond the vertebral body and plate occur at:
- a. L4-L5 or L5-S1
  - b. L2 and L2-L3
  - c. C7-T1 and T1-T3
  - d. T11-L1
96. The **most** common inflammatory disorder that affects the spinal cord is:
- a. sarcoidosis
  - b. multiple sclerosis
  - c. disseminated encephalomyelitis
  - d. systemic lupus erythematosus
97. The imaging modality of choice for evaluation of lesions of the suprahyoid neck is:
- a. plain radiography
  - b. CT
  - c. MRI
  - d. ultrasound
98. The **most** common cause of a cystic neck mass in an adult is infection.
- a. True
  - b. False
99. Paranasal sinus malignancy **most** commonly arises in the \_\_\_ sinus.
- a. frontal
  - b. ethmoid
  - c. sphenoid
  - d. maxillary

100. The **most** common ocular malignancy in a child is:

- a. retinoblastoma
- b. melanoma
- c. optic nerve glioma
- d. meningioma

**SECTION IX**

101. **All** of the following are indications for positron emission tomography (PET) scanning, **except**:

- a. presurgical, interictal identification of refractory brain seizure foci
- b. differentiation of residual or recurrent brain tumor from radiation necrosis
- c. a diabetic patient with a blood glucose level greater than 200 mg/dl
- d. metabolic assessment of myocardial viability

102. A bone scan is not sensitive for:

- a. calcified cartilage
- b. multiple myeloma
- c. degenerative diseases
- d. atherosclerotic disease

103. The "Mickey Mouse" sign is indicative of:

- a. osteoporosis
- b. melanoma
- c. rheumatoid arthritis
- d. Paget's disease

104. Some potential causes of gas trapping in a V/Q scan include:

- 1. foreign body
- 2. chronic obstructive pulmonary disease (COPD)
- 3. asthma
- 4. smoke inhalation

**possible responses**

- a. 1 and 2
- b. 3 and 4
- c. 1, 2, & 3
- d. 1, 2, 3, & 4



105. The typical radiation safety procedure following therapy with I-131 is to advise the patient to minimize close contact with others for:
- a. 24 hours
  - b. 5 days
  - c. 1 month
  - d. 90 days
106. The "rim sign" refers to an area of increased activity in the region of the:
- a. liver
  - b. kidney
  - c. spleen
  - d. heart
107. The normal half-emptying time of the stomach is usually between \_\_\_ and \_\_\_ minutes.
- a. 2-3
  - b. 15-30
  - c. 50-100
  - d. 150-200
108. A "fixed" defect implies that there is a lack of perfusion during both the rest and stress components of the heart scan.
- a. True
  - b. False

#### **SECTION X**

109. A "sail sign" refers to the thymus creating a triangle shadow of soft tissue along the mediastinal border on an/an \_\_\_ radiograph.
- a. head
  - b. chest
  - c. abdomen
  - d. pelvis
110. Acute chest syndrome is **most** common in individuals who suffer from:
- a. Paget's disease
  - b. chronic pancreatitis
  - c. small bowel obstruction
  - d. sickle cell anemia

111. The **most** accurate technique for the diagnosis of intussusception is:
- a. ultrasound
  - b. plain radiography
  - c. CT
  - d. MRI
112. The **most** concerning cause of leukocoria is:
- a. Coat's disease
  - b. retinopathy of prematurity
  - c. retinoblastoma
  - d. congenital cataracts
113. The mnemonic C-R-I-T-O-E refers to:
- a. classification of brain tumors
  - b. types of bone fractures
  - c. location of the epiphysis
  - d. the usual sequence of ossification of secondary growth centers of the elbow
114. Legg-Calvé-Perthes disease affects the:
- a. pelvis
  - b. femoral head
  - c. elbow
  - d. skull
115. The **most** common cause of death in a patient who has suffered nonaccidental trauma (NAT) is:
- a. posterior rib fracture
  - b. central nervous system injury
  - c. bowel laceration
  - d. pancreatic injury

## **SECTION XI**

116. Approximately \_\_\_% of the solitary pulmonary nodules detected annually in the United States is benign.
- a. 20
  - b. 40
  - c. 60
  - d. 80

117. The number one risk factor for lung carcinoma is:
- genetic inheritance
  - tobacco use
  - age and sex
  - racial origin
118. The **most** common granulomatous interstitial lung disease to cause a micronodular pattern is:
- sarcoidosis
  - miliary tuberculosis
  - blastomycosis
  - hypersensitivity pneumonitis
119. The pathological identification of Reed-Sternberg cells indicates:
- thyoma
  - sarcoidosis
  - Hodgkin's lymphoma
  - Castelman's disease
120. The **most** important risk factor associated with the development of malignant pleural mesothelioma is:
- tobacco use
  - exposure to asbestos
  - long term exposure to bat droppings
  - inhalation of coal dust

## **SECTION XII**

121. An hourglass deformity of the cervix is a severe form of incompetent cervix that occurs when the internal cervical os is open and the endocervical canal is dilated to the external os.
- True
  - False
122. Each year approximately \_\_\_ deaths in the United States are attributed to pulmonary embolism resulting from deep venous thrombosis (DVT).
- 15,000
  - 50,000
  - 100,000
  - 200,000

123. During ultrasound examination, the wall-echo-shadow (WES) sign may be seen when the:
- chest contains fluid
  - gallbladder is completely filled with stones
  - bowel is distended with air
  - stomach is partially filled

**SECTION XIII**

124. The **most** common reasons radiologists are sued include the failure to:

1. diagnose
2. communicate findings in an appropriate and timely manner
3. suggest the next appropriate procedure
4. suggest the most effective therapy

**possible responses**

- a. 1 and 3
  - b. 2 and 4
  - c. 1, 2, & 3
  - d. 1, 2, 3, & 4
125. Res ipsa loquitur means:
- a. let the superior respond
  - b. the situation speaks for itself
  - c. borrowed servant
  - d. placing of the negligence of one person on another