ANSWERS: CHAPTER 23

MATCHING
1. d 3. f 5. c 7. a
2. b 4. h 6. g 8. e

IMAGE LABELING
1A. Femoral head
1B. Acetabulum
1C. Acetabular labrum
1D. Femur
2A. Sacroiliac joint
2B. Ilium
2C. Ischium
2D. Pubis
2E. Pubic symphysis
2F. Femur
2G. Coccyx
2H. Sacrum
3A. Iliac line
3B. Labrum
3C. Femoral head
3D. Acetabulum

MULTIPLE CHOICE
1. b 4. d 7. d 10. d
2. c 5. b 8. b
3. a 6. b 9. b

FILL-IN-THE-BLANK
1. Instability; subluxation; dislocation
2. 10: 1,000
3. Ilium; ischium; pubis
4. Acetabulum
5. Cartilage; 2 to 8
6. Maternal hormones
7. Audible clunk
8. Stress; coronal; stress; transverse; stress
9. Acetabulum; iliac line
10. 60 degrees
11. Femoral head; iliac line; acetabulum
12. Femoral shaft; ischium; femoral head
13. Hip effusion
14. Transient synovitis; septic arthritis
15. Concave; outward; 2 to 5

SHORT ANSWER
1. The femoral head is cartilaginous at birth and ossifies from the center outward between the ages of 2 to 8 months. As the femoral head ossifies, it becomes harder to evaluate with sonography as more shadowing occurs and the joint is more difficult to penetrate.

2. Risk factors for DDH include being born in the breech position, positive family history, abnormal physical exam, oligohydramnios during pregnancy, metatarsus adductus and torticollis, high birth weight, and being of native North American descent.

3. Abnormal physical examination including a palpable or audible clunk during Barlow and Ortolani maneuvers. Asymmetry of the thigh folds, leg length discrepancy, shortened thigh/femur, redundant and asymmetric skin folds on the thigh of the affected leg, and asymmetry of the gluteal folds may also be indicators of DDH.

4. The laxity of the muscles in response to maternal hormones may cause a false-positive examination prior to 4 weeks of age.

IMAGE EVALUATION/PATHOLOGY
1. The alpha angle is measured. This measures the depth of the acetabulum.
2. The femoral head coverage is measured in this image. This measurement is normal. The lower limit of normal is 45%.
3. The femoral head coverage is measured in this image. The measurement is abnormal. The lower limit of normal is 45%.
4. A joint effusion is seen in the joint capsule.

CASE STUDY
1. The femoral head is completely out of the acetabulum, consistent with dislocation of the hip.