

1. Which scenario is most strongly linked to an increased risk of septic arthritis in newborns?

- A) Exclusive breastfeeding
- B) Admission to the NICU with the use of an umbilical catheter
- C) Having a congenital heart condition
- D) Family history of autoimmune disease
- E) Deficient levels of vitamin D

Answer: B

2. A 5-year-old child with bendable flat feet and a Beighton hypermobility score of 7 out of 9 begins to complain of pain in the knee. What is the most probable cause behind this symptom?

- A) Patellofemoral instability due to valgus position in the hindfoot
- B) Meniscus injury from abnormal torsional alignment
- C) Inflammation of the tibial tubercle apophysis
- D) Iliotibial band friction syndrome
- E) Looseness of the medial collateral ligament

Answer: A

3. A 57-year-old male, diagnosed with metastatic kidney cancer, suffers a humeral shaft fracture due to bone weakening. Which pre-surgical measure is most essential for his care?

- A) Serum protein electrophoresis to exclude myeloma
- B) Preoperative CT-guided arterial embolization
- C) Bone scintigraphy to identify additional bone lesions
- D) MRI scan to determine extent of soft tissue involvement
- E) Blood test for alkaline phosphatase

Answer: B

4. What X-ray feature most reliably suggests a patient's rotator cuff-related shoulder arthritis may benefit from a reverse shoulder replacement?

- A) Acromiohumeral space less than 7 mm
- B) Glenoid angled backward more than 10 degrees
- C) Bony projections on the lower humerus
- D) Calcium deposits in the supraspinatus tendon
- E) Biceps tendon partially dislocated

Answer: A

5. For a 60-year-old diagnosed with avascular necrosis (AVN) of the hip, which Steinberg classification stage is considered a definite indication for total hip replacement surgery?

- A) Stage I: MRI detects changes, X-ray normal
- B) Stage III: Crescent sign appears, but no flattening
- C) Stage IV: Flattened femoral head
- D) Stage V: Acetabular surface involved
- E) Stage VI: Advanced joint degeneration

Answer: E

6. Which statement about the meniscus and its role in bearing loads across the knee joint is INCORRECT?

- A. The meniscus undergoes both tension and compression during weight bearing
- B. The medial meniscus supports half the load in its compartment, lateral meniscus supports 70% in its own
- C. Losing the central third of the meniscus reduces joint contact by 65%
- D. Even after partial meniscectomy, increased joint compression damages cartilage and leads to degeneration
- E. Shear forces are present in the meniscus during loading

Answer: C

7. What is a feature of an engaging Hill-Sachs lesion?

- a. It cannot cause instability because it sits posteriorly
- b. Vertical orientation in neutral, making engagement less likely
- c. Lines up with the glenoid's long axis when the shoulder is abducted and externally rotated
- d. Always covered by the glenoid throughout motion
- e. Diagonal positioning so anterior contact is uncommon

Answer: C

8. What is the primary benefit of decreasing the posterior slope angle during total knee replacement surgery?

- A. Prevents cam-post impingement in posterior-stabilized implants
- B. Reduces side-to-side instability when the knee is straight
- C. Improves lateral stability with the knee bent
- D. Increases extension capacity
- E. Enhances overall knee stability

Answer: A

9. Posterior stability in total knee arthroplasty cannot be achieved by which method?

- A. Soft tissue adjustment
- B. Use of the implant
- C. Preserving the posterior cruciate ligament
- D. Removing the posterior cruciate ligament
- E. Taking out the anterior cruciate ligament

Answer: D

10. A 56-year-old man reports pain and tingling in the right lateral thigh, calf, and top of the foot. Lumbar MRI shows a right-sided L4-5 disc herniation. Which nerve root is most likely compressed?

- A. L3
- B. L4
- C. L5
- D. S1
- E. S2

Answer: C

11. In patients with isthmic spondylolisthesis, compared to those with degenerative spondylolisthesis, how is pedicle anatomy typically altered?

- A. Angled more downward (caudally)
- B. Increased width
- C. Closer to the midline (more medial)
- D. Lower bone density
- E. Larger diameter

Answer: A

12. A 3-week-old baby is diagnosed with unilateral clubfoot. Which statement about serial casting and manipulation in this condition is FALSE?

- A. Correction involves forefoot supination, not pronation
- B. Lateral pressure on the talus is used during forefoot abduction
- C. Achilles tendon is released via percutaneous tenotomy prior to final casting if equinus remains
- D. Casts are changed weekly
- E. Final cast is applied with the foot held in 30 degrees of abduction

Answer: E

13. After simple removal of a superficial 3-cm thigh mass at another facility, pathology identifies leiomyosarcoma but does not mention margins. What is the recommended next step?

- A. Wide re-excision of the area where the tumor was removed
- B. Watchful waiting
- C. Radiation therapy to the surgical bed only
- D. Chemotherapy
- E. Both radiation and chemotherapy

Answer: A