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THE JOURNAL OF BONE & JOINT SURGERY  
CONTINUING MEDICAL EDUCATION

CME

REVIEW QUESTIONS

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APRIL, MAY, JUNE  
2004

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THE DEADLINE TO SUBMIT YOUR ANSWERS FOR GRADING THIS SET OF QUESTIONS IS OCTOBER 15, 2004.

## PURPOSE

The purposes of this CME program are:

- To provide the general orthopaedic surgeon with an ability to assess his or her continuing competence in orthopaedics through the acquisition of contemporary scientific information.
- To provide a broad-based review and update of the major subspecialty areas in orthopaedics.
- To make *The Journal* reader aware of new advances in orthopaedic surgical techniques and technology.

## INSTRUCTIONS

In order to benefit most from this educational experience and qualify for Continuing Medical Education credit, please observe the following instructions:

1. Read the learning objectives listed on the Response Form and be certain that they meet your individual learning needs.
2. These CME questions have been derived from the information presented in the April, May, and June issues of the American volume of *The Journal of Bone and Joint Surgery* (Volume 86-A, Numbers 4, 5, and 6). A careful study of each article should yield the best response to each question.
3. Read each question carefully, identify the best answer, and record that answer on the CME Response Form in the back of this document.
4. To receive CME credit, it is absolutely essential that you complete all portions of the attached Response Form and answer each question.
5. In order for the American Academy of Orthopaedic Surgeons to document your participation in the CME activity, Academy Fellows must provide their AAOS membership number in the designated area on the Response Form.
6. In addition to providing the answers to the CME questions, you must complete the examination evaluation questions. These questions are found on the Response Form. The way you answer these evaluation questions will not in any way affect the score that you achieve.
7. All completed answer sheets will be graded, and you will be advised of the results of this examination within four weeks after it is received. In order to qualify for CME credit, a score of more than 50% correct must be achieved on the examination. A charge of \$30 per quarter, or \$110 per year, must be paid at the time that the answer sheet is submitted. **The deadline to submit your answers for grading this set of questions is October 15, 2004.**

1. **A forty-four-year-old male laborer has severe right leg and foot pain of two months' duration despite being off from work, four weeks of physical therapy, and oral nonsteroidal anti-inflammatory drug therapy. Examination reveals grade-4 (of 5) strength of the great toe and ankle dorsiflexors and mildly decreased sensation in an L5 distribution. Magnetic resonance imaging shows a disc herniation displacing the right L5 nerve root. Treatment options including epidural steroid injection and discectomy are discussed. Which of the following is true?**
  - A. it is too late for an epidural steroid injection to decrease the pain
  - B. delaying discectomy for a trial of epidural steroid injection will probably result in a less optimal clinical result
  - C. since the oral nonsteroidal anti-inflammatory drug (ibuprofen) did not help, it is unlikely that the epidural steroid injection would decrease the pain
  - D. a trial of epidural steroid injection is unlikely to adversely affect the clinical outcome by delaying the time to the surgery
  - E. a disc herniation that has a low signal intensity on T2-weighted magnetic resonance images will probably resorb spontaneously
2. **Which of the following statements is true regarding the accuracy of ultrasonography and magnetic resonance imaging for diagnosing and measuring the size of full and partial-thickness tears of the rotator cuff?**
  - A. magnetic resonance imaging is more accurate than ultrasonography for diagnosing and measuring partial-thickness tears, but the two have comparable accuracy for full-thickness rotator cuff tears
  - B. ultrasonography and magnetic resonance imaging have comparable accuracy for diagnosing and measuring full and partial-thickness rotator cuff tears
  - C. ultrasonography is more accurate than magnetic resonance imaging for diagnosing but not for measuring full and partial-thickness rotator cuff tears
  - D. ultrasonography and magnetic resonance imaging have comparable accuracy for diagnosing full and partial-thickness rotator cuff tears, but magnetic resonance imaging is more accurate for measuring tear size
  - E. magnetic resonance imaging is more accurate than ultrasonography for diagnosing and measuring full and partial-thickness rotator cuff tears
3. **In infants with brachial plexus injury, the imaging study of choice to detect posterior dislocation of the shoulder was found to be:**
  - A. magnetic resonance imaging
  - B. ultrasonography from the posterior approach
  - C. computerized tomography
  - D. arthrography
  - E. plain radiography
4. **Which of the following statements regarding knee arthrodesis is false?**
  - A. a knee fused in 10° to 15° of flexion allows a better sitting position and improves gait
  - B. a knee fused in 0° of extension results in a gait

- that requires a 10% increase in energy expenditure when compared with that of normal walking
- C. a knee fused in 15° of flexion leads to approximately 2 cm of ipsilateral limb shortening
- D. gait efficiency increases with the knee fused in 15° of flexion because of the change in push-off direction of the gastrocnemius muscle
- E. volunteers with an artificially fused knee walked faster with the knee fixed in 20° of flexion
- 5. Which of the following statements describing aerosols is correct?**
- A. aerosols are fine particles with a diameter of 10 to 20  $\mu\text{m}$
- B. infected aerosols travel only a short distance from the generating source
- C. infected aerosols can cause airborne infection if a susceptible host inhales them
- D. it is unlikely that contact transmission of infected aerosols to mucous membranes or a small wound will result in infection
- E. scrupulous hand-washing is sufficient to prevent transmission of airborne infection by aerosols
- 6. Among patients surveyed who had sustained orthopaedic trauma, the prevalence of post-traumatic stress disorder was found to be:**
- A. 5%
- B. 10%
- C. 25%
- D. 50%
- E. 75%
- 7. A meta-analysis of randomized trials evaluating the use of closed suction drains following elective hip and knee arthroplasty indicated that, in comparison with patients in whom no drains were used, patients in whom drains were used had a significant difference with regard to which of the following outcomes?**
- A. increased need for blood transfusion
- B. reduced occurrence of wound hematoma
- C. increased reoperation rate for wound-healing complications
- D. reduced occurrence of wound infection
- E. reduced prevalence of venous thrombosis
- 8. A patient with cervical spondylotic myelopathy and ossification of the posterior longitudinal ligament is undergoing C3-C6 corpectomy with strut graft under somatosensory and transcranial electric motor evoked potential monitoring guidance. During graft placement, the motor evoked potential amplitudes on the left side decrease by 50% and those on the right side decrease by 35%, with no change in the somatosensory evoked potentials. As the operating surgeon, how would you best react to these findings?**
- A. consider the changes to be within normal variability and continue operating without intervention
- B. remove the strut graft immediately
- C. raise the patient's mean arterial blood pressure to 90 mm Hg and continue operating
- D. raise the patient's mean arterial blood pressure to 90 mm Hg, pause surgical manipulations, and wait to see if the motor evoked potentials improve before proceeding or intervening further
- E. maintain the patient's mean arterial blood pressure without any change, pause surgical manipulations, and wait to see if the motor evoked potentials improve before proceeding or intervening further
- 9. Sensitization to pain, if improperly treated, can result in:**
- A. improved patient outcomes and decreased pain
- B. a hypersensitive pain response that persists even after the injury has resolved
- C. improved two-point discrimination
- D. changes only in the peripheral nervous system
- E. changes only in the central nervous system
- 10. In a study examining outcomes of unicompartmental knee arthroplasty at six to thirteen years postoperatively, which factors were significantly associated with failure of the arthroplasty?**
- A. initial polyethylene thickness and patient weight
- B. initial polyethylene thickness, polyethylene shelf age, and patient gender
- C. polyethylene shelf age and patient age
- D. patient age and gender
- E. absent anterior cruciate ligament at the surgery
- 11. Which combination of tests most accurately predicts damage to the acromioclavicular joint?**
- A. magnetic resonance imaging and examination for local tenderness
- B. bone scan and the Paxinos (acromioclavicular compression) test
- C. O'Brien sign and radiographs
- D. radiographs and bone scan
- E. radiographs and magnetic resonance imaging
- 12. A three-year-old boy presents to the emergency room with a twelve-hour history of worsening hip pain and fever and is unwilling to bear weight. The erythrocyte sedimentation rate is 42 mm/hr, and the white blood-cell count is  $13 \times 10^9/\text{L}$ . The most appropriate next step is to:**
- A. begin antibiotic therapy immediately
- B. admit the patient for close follow-up
- C. perform a bone scan immediately
- D. perform a needle aspiration of the hip
- E. perform a surgical débridement of the hip immediately
- 13. Which of the following is the most crucial in determining the diagnosis of septic arthritis in children and the need for surgical irrigation and débridement?**
- A. history of fever
- B. non-weight-bearing on the painful hip
- C. erythrocyte sedimentation rate of  $\geq 40$  mm/hr
- D. hip arthrocentesis analysis (white blood-cell count, Gram stain)
- E. serum white blood-cell count of  $>12.0 \times 10^9/\text{L}$
- 14. Arterial embolization of bone tumors can minimize intraoperative bleeding. Which of the following tumors does not require preoperative embolization?**
- A. metastatic renal cell carcinoma to the femoral diaphysis

- B. myxoid chondrosarcoma in the ilium  
 C. giant-cell tumor in the pubis  
 D. aneurysmal bone cyst in the periacetabular region  
 E. metastatic thyroid carcinoma to the proximal part of the humerus
- 15. At a minimum of five years postoperatively, a comparison of the anterior-posterior-glide and rotating-platform low contact stress mobile-bearing total knee arthroplasties demonstrated no significant differences in:**
- A. postoperative pain scores  
 B. flexion at the time of final follow-up  
 C. aseptic loosening  
 D. polyethylene wear  
 E. all of the above
- 16. Which of the following statements is true:**
- A. the use of most technologies in orthopaedic surgery today is based on extensive data proving their clinical efficacy  
 B. the cost-effectiveness of most orthopaedic technologies has been well documented in the literature  
 C. spending on health-care technology represents one of the most significant drivers of health-care spending in the United States  
 D. in order to obtain 510k approval (pre-market notification) for a new device, it is necessary to prove clinical efficacy and cost-effectiveness relative to the gold standard technology  
 E. orthopaedic surgeons rarely adopt and use new technologies until extensive data proving their safety and efficacy have been published in the literature
- 17. Which statement is correct regarding developmental dysplasia of the hip:**
- A. selective ultrasonographic screening of infants with risk factors for hip dysplasia detects the majority of infants with persistent dysplasia  
 B. selective ultrasonographic screening of infants with risk factors for hip dysplasia reduces rates of subsequent surgery  
 C. delaying closed reduction of a dislocated hip until development of the ossific nucleus as seen on radiographs likely reduces the risk of postreduction osteonecrosis, but it may increase the necessity of secondary reconstructive procedures  
 D. long-term results of the Salter innominate osteotomy for hip dysplasia generally show excellent functional and radiographic results  
 E. periacetabular osteotomy for hip dysplasia increases the radiographic anterior center-edge angle but does not increase the lateral center-edge angle
- 18. For diabetic foot screening, monofilament testing of less than five plantar sites in each foot:**
- A. is associated with improved sensitivity  
 B. is associated with improved specificity  
 C. is more reliable than testing of all five sites on both feet  
 D. performs well if a higher force is used  
 E. performs well if a lower force is used
- 19. The components of linear wear penetration, which are commonly used to assess polyethylene wear, include all of the following EXCEPT:**
- A. creep  
 B. bedding-in of the liner into the modular acetabular shell  
 C. removal of material (true wear)  
 D. loading of the articulation  
 E. method of component fixation
- 20. A recent study demonstrated a significant association between the findings of physical examination and the likelihood of arterial injury following knee dislocation. Physical examination had a:**
- A. negative predictive value of 0%  
 B. negative predictive value of 100%  
 C. positive predictive value of 100%  
 D. sensitivity of 90%  
 E. positive predictive value of 0%
- 21. In comparison with patients who report high health-related quality-of-life scores prior to total hip or knee arthroplasty, patients with low preoperative scores can expect:**
- A. less improvement  
 B. greater improvement and greater final function  
 C. greater improvement but a lower level of final function  
 D. more difficult rehabilitation  
 E. higher satisfaction
- 22. During total hip replacement, failure to restore femoral head offset is common. The consequences are:**
- A. higher joint reactive force  
 B. decreased abductor strength  
 C. greater risk of dislocation  
 D. increased polyethylene wear rate  
 E. all of the above
- 23. A recent study demonstrated that the Lysholm knee scale used for various chondral disorders of the knee:**
- A. is the most reliable, valid, and responsive condition-specific knee outcome instrument used  
 B. is more reliable, valid, and responsive than the Short Form-12, Western Ontario and McMaster Universities Osteoarthritis Index, and Tegner Activity Scale  
 C. is a generic health-related quality-of-life scale  
 D. demonstrates overall acceptable reliability, validity, and responsiveness  
 E. should be used instead of a generic outcome instrument or measures of patient satisfaction
- 24. After a mean duration of follow-up of ten years, successful revision with use of a cemented femoral component was found to be associated with all of the following EXCEPT:**
- A. host bone quality  
 B. third-generation cementation techniques  
 C. younger patient age  
 D. grade of the postoperative cement mantle  
 E. gender

- 25. Performing vertebroplasty in the presence of an end-plate defect in the goat spine leads to:**
- disc degeneration
  - a condition similar to a Schmorl node
  - an inflammatory reaction
  - early fragmentation of cement
  - loss of disc height
- 26. Multimodal analgesia:**
- utilizes only pharmacologic approaches to pain management
  - utilizes only nonpharmacologic approaches to pain management
  - addresses multiple mechanisms of pain and reduces side effects through use of lower doses of individual modalities
  - lengthens hospital stay
  - is a trend that is not thought to be useful in orthopaedic surgery
- 27. If the entire median nerve trunk is severed at the level of the originating site of the anterior interosseous nerve, which of the following alignment approaches will provide the greatest opportunity for the proximal portion of the anterior interosseous nerve to grow into its distal portion?**
- coapting the distal stump of the anterior interosseous nerve to the proximal stump of the median nerve trunk randomly
  - coapting the distal stump of the anterior interosseous nerve to the posterior part of the proximal stump of the median nerve trunk
  - coapting the distal stump of the anterior interosseous nerve to the central part of the proximal stump of the median nerve trunk
  - coapting the distal stump of the anterior interosseous nerve to the anterior part of the proximal stump of the median nerve trunk
  - coapting the distal stump of the anterior interosseous nerve to the lateral part of the proximal stump of the median nerve trunk
- 28. A fifty-year-old patient is diagnosed with a rotator cuff tear. The patient is male, is hypertensive, has diabetes mellitus, and has a body mass index of 34.6 kg/m<sup>2</sup>. The level of blood urea nitrogen is 22 mg/dL (7.9 mmol/L); creatinine, 2.1 mg/dL (185.6 μmol/L); and nonfasting cholesterol, 260 mg/dL (6.7 mmol/L). Which of the following is most likely to have contributed to the rotator cuff tear in this patient?**
- diabetes mellitus
  - hypertension
  - hyperlipidemia
  - obesity
  - renal failure
- 29. In a comparison of the use of titanium elastic nails, traction, and immobilization in a spica cast for the treatment of femoral neck fractures in children, the use of titanium elastic nails was found to be associated with:**
- a higher rate of complications
  - a longer initial hospital stay
  - a significantly more rapid achievement of recovery milestones
  - a better outcome at one year
  - substantially higher hospital charges
- 30. Which of the following was true when corticosteroids were injected into or around the Achilles tendon of rabbits?**
- Achilles tendons of rabbits injected bilaterally were mechanically weaker than those of rabbits injected unilaterally
  - Achilles tendons of rabbits injected unilaterally were mechanically equivalent to those of rabbits injected bilaterally
  - Achilles tendons of rabbits injected unilaterally were mechanically weaker than those injected with a placebo
  - Achilles tendons of rabbits injected bilaterally were mechanically equivalent to those injected with a placebo
  - Achilles tendons of rabbits injected unilaterally were mechanically equivalent to those injected with a placebo
- 31. In a recent study of 235 children with traumatic amputations, the most common cause was found to be:**
- lawnmowers
  - farming equipment
  - motor-vehicle accidents
  - firecrackers or other explosive devices
  - burns
- 32. In a series of patients with stage-I or II osteonecrosis of the femoral head, those who underwent core decompression and implantation of autologous bone marrow cells were compared with those who underwent core decompression alone. The former treatment group had:**
- no difference in pain relief
  - no difference in joint symptoms
  - better bone stock for subsequent total hip arthroplasty
  - less progression to stage-III changes
  - no change in the volume of the necrotic lesion
- 33. Which of the following factors is the most important to ensure a good lifelong result following surgical correction of clubfoot?**
- range of sagittal motion of the hindfoot
  - preservation of functional mobility of the subtalar joint
  - complete anatomical correction
  - absence of pain in adolescence
  - normal anteroposterior talocalcaneal (Kite) angle
- 34. What is the most common mode of failure following rotator cuff repairs with use of suture-anchors?**
- suture pull-out from tendon
  - anchor pull-out from bone
  - new rotator cuff tear
  - suture breakage
  - anchor breakage
- 35. In a reconstruction of a posterior cruciate ligament with a two-bundle technique, the anterior-distal, middle-middle configuration most effectively:**

- A. secures fixation of the bundles  
 B. reduces peak bundle tension  
 C. reduces bundle tension slope  
 D. prevents posterior translation  
 E. normalizes load-sharing configuration
- 36. Clinically retrieved highly cross-linked polyethylene acetabular liners have demonstrated:**
- A. surface wear patterns similar to those seen in hip-simulator studies  
 B. surface defects not typically observed in hip-simulator studies  
 C. high volumetric wear rates  
 D. fatigue failure mechanisms  
 E. liner-locking mechanism dissociation
- 37. In a multilevel thoracoscopy-assisted anterior thoracic fusion model, intervertebral fusion was most consistently achieved with which of the following graft materials?**
- A. collagen-hydroxyapatite/tricalcium phosphate (composite carrier)  
 B. autologous iliac crest  
 C. autologous rib  
 D. rhBMP-2 on a collagen/composite carrier  
 E. no graft material
- 38. The addition of a hydroxyapatite coating to a proximally porous-coated tapered femoral stem:**
- A. prevents subsidence of the stem  
 B. reduces aseptic loosening  
 C. decreases distal osteolysis  
 D. improves osseointegration of the femoral stem  
 E. has no influence on the outcome of total hip arthroplasty at a mean of ten years postoperatively
- 39. Appropriate treatment of foot ulcers in diabetic patients includes:**
- A. local wound care  
 B. pressure relief with a total contact cast  
 C. vacuum-assisted closure  
 D. surgical débridement and tissue flap coverage  
 E. all of the above
- 40. In a study of patients who had undergone total knee arthroplasty more than five years previously, it was found that, compared with patients who had had regular follow-up evaluations, those who had been lost to follow-up after six months postoperatively were:**
- A. more likely to have had revision surgery  
 B. more likely to be dissatisfied with the outcome of the surgery  
 C. found to have poorer pain relief and function outcome scores  
 D. statistically similar with regard to revision rate, satisfaction rate, and outcome scores for pain and function when compared with their counterparts who were not lost to follow-up  
 E. less likely to be dissatisfied with the outcome of the surgery
- 41. Which of the following factors has been found to increase intramedullary temperatures of bone with reaming?**
- A. size of the reamers  
 B. use of tourniquet ischemia during reaming  
 C. design of the reamers  
 D. use of worn reamers  
 E. duration of reaming
- 42. In a recent study, the clinical wear performance of conventional polyethylene sterilized with gamma irradiation (either in vacuum-barrier packaging or in air) was superior to the performance of non-irradiated gas-plasma-sterilized components. This result supports the hypothesis that:**
- A. oxidation increases polyethylene wear  
 B. increased cross-linking decreases polyethylene wear  
 C. shelf life affects polyethylene wear  
 D. gas-plasma sterilization increases polyethylene wear  
 E. differences in structure affect polyethylene wear
- 43. Which of the following types of surgical treatment of inferior patellar pole avulsion fractures best accomplishes the goals of retaining the fragments, maintaining normal patellar height, immediately mobilizing the knee joint, and early weight-bearing?**
- A. six weeks of immobilization in a plaster cast  
 B. internal fixation with a compression screw or screws and cerclage wire  
 C. internal fixation with two cerclage wires  
 D. internal fixation with a basket plate  
 E. removal of the patellar pole and repair of the patellar tendon
- 44. The presence of a dorsal flange on a cemented femoral stem results in:**
- A. decreased stem-cement interlock and decreased bone-cement micromotion  
 B. decreased stem-cement interlock and increased bone-cement micromotion  
 C. increased stem-cement interlock and decreased bone-cement micromotion  
 D. increased stem-cement interlock and increased bone-cement micromotion  
 E. reduced strains of the medial femoral surface and increased stress-shielding
- 45. The presentation of osteomyelitis in neonates differs from that in children because neonates are more likely to present with:**
- A. an elevated white blood-cell count  
 B. an elevated erythrocyte sedimentation rate  
 C. a false-negative bone scan  
 D. an increased temperature  
 E. pain with hip rotation
- 46. In an experimental model using intact human elbows with intact collateral ligaments, a valgus and supination torque was applied after resection of the radial head and 30% of the height of the coronoid process. The outcome was:**
- A. almost normal stability  
 B. significant posterolateral rotatory laxity only when there was additional insufficiency of the lateral ulnar collateral ligament  
 C. restoration of almost normal stability with insertion

- of a bipolar radial head prosthesis (Judet prosthesis) alone
- D. restoration of almost normal stability with insertion of a rigid radial head prosthesis alone
- E. restoration of normal stability with insertion of a rigid radial head replacement and reconstruction of the coronoid process
- 47. The most appropriate interpretation of a decrease in the anteroposterior translation of the tibia, as measured with a KT-1000 arthrometer, following surgical reconstruction of the anterior cruciate ligament is:**
- A. the surgery successfully restored the tibiofemoral kinematics
- B. osteoarthritis is not likely to develop
- C. the ligament graft was placed anatomically
- D. tibial motion is restricted but the tibiofemoral relationship may not be normal
- E. contracture of the secondary stabilizers of the anterior cruciate ligament has occurred
- 48. In accordance with Wolff's law, the remodeling characteristics of thoracic spinal facets in patients with scoliosis demonstrate which of the following electron microscopic features?**
- A. facets on the concave side of the curve demonstrate an increase in cortical thickness and an increase in porosity in comparison with facets on the convex side of the curve
- B. facets on the concave side of the curve demonstrate an increase in cortical thickness and a decrease in porosity in comparison with facets on the convex side of the curve
- C. facets on the concave side of the curve demonstrate a decrease in cortical thickness and a decrease in porosity in comparison with facets on the convex side of the curve
- D. facets on the convex side of the curve demonstrate an increase in cortical thickness and a decrease in porosity in comparison with facets on the concave side of the curve
- E. facets on the convex side of the curve demonstrate equal changes in cortical thickness and porosity in comparison with facets on the concave side of the curve
- 49. A forty-five-year-old man sustained a highly comminuted radial head fracture that is not amenable to primary open reduction and internal fixation. He had a neutral ulnar variance prior to the injury. The patient is treated with radial head excision and reconstruction with a metal radial head implant that is 4 mm shorter than the native radial head that was excised. Which of the following conditions is most likely to increase relative force transmission through the ulna on application of an axial load force?**
- A. forearm supination
- B. forearm pronation
- C. elbow in varus alignment
- D. wrist extension
- E. rupture of the interosseous membrane
- 50. With regard to arthrodesis of the metatarsophalangeal joint as a salvage procedure following a failed Keller bunionectomy that presents with a painful cock-up toe deformity, which of the following statements is most correct?**
- A. the preexisting deformity is likely to recur within two years
- B. this type of procedure addresses the underlying problem of instability
- C. this procedure allows immediate weight-bearing in regular shoes
- D. this is an easy technique with a negligible rate of complications
- E. this procedure has no influence on concomitant transfer metatarsalgia
- Conflict of Interest**  
The author of these CME questions does not have any financial conflict of interest with regard to the subject matter discussed in these review questions.

**RESPONSE FORM**

**EXAMINATION EVALUATION**

Did the July 2004 CME Review Questions meet these educational objectives\*:

1. Provide a broad-based review and update specifically in the areas of oncology, foot and ankle surgery, and pediatric orthopaedics?  Yes  No
2. Strengthen your problem-solving abilities related to patient care particularly in the areas of oncology, foot and ankle surgery, and pediatric orthopaedics?  Yes  No
3. Make you aware of new advances in orthopaedic surgical techniques and technology?  Yes  No

Comments (please comment on the quality of the questions and their relationship to your practice): \_\_\_\_\_

\*Note: These objectives will change every quarter.

**SURVEY (optional)**

1. Which of the following best describes your practice type?
  - General orthopaedics
  - General orthopaedics with subspecialty interest
  - Exclusively subspecialty
  - Resident or student
  - Researcher
  - Other: \_\_\_\_\_
2. What are your specialty interests? Please rank in order of importance (1 = highest importance).
 

___ Adult	___ Spine
___ Geriatric	___ Hand
___ Pediatric	___ Rheumatology
___ Rehabilitation	___ Foot and Ankle
___ Sports	___ Other: _____
___ Trauma	
3. Which is your number-one priority to read when you receive *The Journal* (American volume only) each month?
  - Commercial advertising
  - Classified advertising
  - Clinical scientific articles
  - Orthopaedic Forum
  - Current Concepts
  - Letters to The Editor
  - Basic scientific articles
  - Instructional Course Lectures

**ACCREDITATION STATEMENT**

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the American Academy of Orthopaedic Surgeons (AAOS) and *The Journal of Bone and Joint Surgery* (JBJS). The AAOS is accredited by the ACCME to provide continuing medical education for physicians. The AAOS designates this educational activity for up to 10 hours of category-1 credit toward the AMA Physicians' Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

The deadline to submit your answers for grading this set of questions is October 15, 2004.

**QUESTIONS?**

Please contact the CME Division of *The Journal of Bone and Joint Surgery* at 781-449-9780 x124.

**ANSWER KEY**

**Black out the correct answers**

- |               |               |                                   |
|---------------|---------------|-----------------------------------|
| 1. A B C D E  | 18. A B C D E | 35. A B C D E                     |
| 2. A B C D E  | 19. A B C D E | 36. A B C D E                     |
| 3. A B C D E  | 20. A B C D E | 37. A B C D E                     |
| 4. A B C D E  | 21. A B C D E | 38. A B C D E                     |
| 5. A B C D E  | 22. A B C D E | 39. A B C D E                     |
| 6. A B C D E  | 23. A B C D E | 40. A B C D E                     |
| 7. A B C D E  | 24. A B C D E | 41. A B C D E                     |
| 8. A B C D E  | 25. A B C D E | 42. A B C D E                     |
| 9. A B C D E  | 26. A B C D E | 43. A B C D E                     |
| 10. A B C D E | 27. A B C D E | 44. A B C D E                     |
| 11. A B C D E | 28. A B C D E | 45. A B C D E                     |
| 12. A B C D E | 29. A B C D E | 46. A B C D E                     |
| 13. A B C D E | 30. A B C D E | 47. A B C D E                     |
| 14. A B C D E | 31. A B C D E | 48. A B C D E                     |
| 15. A B C D E | 32. A B C D E | 49. A B C D E                     |
| 16. A B C D E | 33. A B C D E | 50. A B C D E                     |
| 17. A B C D E | 34. A B C D E | <b>CME Credits Claimed*</b> _____ |

\*Required. Please enter the number of CME credit hours you are claiming for this exam. You must complete this field to receive CME credit.

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