



## The Journal of the American Osteopathic Association

The purpose of this quiz is to provide a convenient means for osteopathic physicians to assess their understanding of the scientific content in the August 2015 issue of *The Journal of the American Osteopathic Association (JAOA)*.

To apply for 2 Category 1-B continuing medical education (CME) credits, AOA members may take this quiz online at <https://www.osteopathic.org/docmeonline>, where this and other JAOA quizzes can be accessed. Quizzes that are completed online will be graded and credited to members' CME activity reports.

Alternatively, osteopathic physicians can complete the quiz below and mail it to the following address by February 28, 2017:

American Osteopathic Association  
Division of CME  
142 E Ontario St  
Chicago, IL 60611-2864  
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If you mail or fax this form to the Division of CME, the AOA will record the fact that you have submitted this form for Category 1-B CME credit. Osteopathic physicians who are not members of the AOA and who forward hard copies of completed JAOA quizzes to the Division of CME will be charged a fee of \$25 per quiz for staff time to grade the quiz, record the credits, and provide a letter to the osteopathic physician as documentation.

For each of the questions below, place a checkmark in the box provided next to your answer so that you can easily verify your answers against the correct answers, which will be published in the September 2015 issue of the JAOA.

### Accuracy of Anterior Superior Iliac Spine Symmetry Assessment by Routine Structural Examination

Albert S. Lee, PharmD, OMS IV;  
Casey W. Pyle, DO; and David Redding, DO

1. Based on the results of the current study, anterior superior iliac spine (ASIS) evaluation should be used as a screening tool for ASIS asymmetry because of which qualities?
- (a) high sensitivity and high specificity  
 (b) high sensitivity and low specificity  
 (c) low sensitivity and high specificity  
 (d) low sensitivity and low specificity

2. Which of the following showed a statistically significant difference in the evaluation of ASIS levels?
- (a) level of training  
 (b) eye dominance  
 (c) use of corrective lenses  
 (d) hand dominance

### Modeled Osteopathic Manipulative Treatments: A Review of Their In Vitro Effects on Fibroblast Tissue Preparations

Manal Zein-Hammoud, PhD,  
and Paul R. Standley, PhD

3. Human fibroblasts respond to various types of strains in vitro by changing which of the following?
- (a) cell morphology  
 (b) proliferation  
 (c) cytokine and nitric oxide secretions  
 (d) all of the above  
 (e) none of the above

4. Which type of strain, when used alone, causes decreased wound closure rates in vitro?
- (a) repetitive motion strain  
 (b) myofascial release  
 (c) counterstrain  
 (d) none

5. What effects does repetitive motion strain have on inflammatory response and cellular proliferation in vitro?
- (a) rapid inflammatory response and increase in cellular proliferation  
 (b) rapid inflammatory response and decrease in cellular proliferation  
 (c) delayed inflammatory response and decrease in cellular proliferation

### Using Simulation-Based Medical Education to Meet the Competency Requirements for the Single Accreditation System

Bernadette Riley, DO

6. According to Accreditation Council for Graduate Medical Education guidelines, which of the following specialties require simulation education?
- (a) internal medicine  
 (b) psychiatry  
 (c) neurology  
 (d) general surgery

7. Systems-based practices include which of the following?
- (a) cost awareness  
 (b) procedures  
 (c) immunizations  
 (d) blood draws

### Role Modeling in the First 2 Years of Medical School

Sharon J. Obadia, DO

8. A physician teacher is demonstrating an osteopathic structural examination to first-year osteopathic medical students during a physical examination skills course, answering questions, and correcting student mistakes when they practice the examination on each other. Which behavior is the physician most likely to be role modeling for the students?
- (a) continually acquiring medical knowledge by using trusted sources for information

- (b) showing patience when explaining a new diagnosis to a patient
- (c) using proper medical terminology to communicate professionally with colleagues
- (d) performing a thorough physical examination with proper technique on each patient
- (e) explaining a medical condition clearly to a patient and then confirming that the patient understands the explanation

#### **Bilateral Shoulder Dislocation Presenting as a Unilateral Shoulder Dislocation: Case Report**

Brett Auerbach, DO;  
Adam Bitterman, DO;  
Cristin Mathew, DO; and  
William Healy III, MD

9. Shoulder dislocation may be caused by which of the following?
- (a) trauma to the shoulder
  - (b) fall on an outstretched arm
  - (c) electrocution
  - (d) all of the above

### **Earn CME Credits Online**

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10. What is the most common type of shoulder dislocation?

- (a) posterior-inferior
- (b) anterior-inferior
- (c) superior
- (d) lateral

11. Risk of neurologic injury can be decreased after shoulder dislocation by which of the following?

- (a) prompt closed reduction
- (b) administration of narcotics on presentation to the emergency department
- (c) immediate immobilization until x-rays are performed
- (d) consultation of an orthopedic surgeon

#### **Iliac Crest Herniation Secondary to Autogenous Bone Grafting Found on Osteopathic Examination**

Christine J. Ou, DO;  
William C. Sternfeld, MD; and  
Julie M. Stausmire, MSN, ACNS-BC

12. Autogenous bone grafting is a common procedure performed by orthopedic surgeons.

What is 1 common complication seen in iliac crest graft sites?

- (a) increased cortical strength
- (b) Increased risk of arterial bleeding
- (c) hernias containing retroperitoneal fat, kidneys, spleen, liver, and bowel
- (d) complications are minimal

## **Answers to the July 2015 JAOA CME Quiz**

Discussion answers to JAOA continuing medical education quizzes appear only when authors have included discussions with the quiz questions and answers they must provide to meet the requirement for submission to and publication in the JAOA.

#### **Osteopathic Manipulative Therapy in Women With Postpartum Low Back Pain and Disability: A Pragmatic Randomized Controlled Trial**

Florian Schwerla, MSc, DO (Germany);  
Katrin Rother, DO (Germany); Denis Rother, DO (Germany); Michaela Ruetz, MSc, DO (Germany); and Karl-Ludwig Resch, MD, PhD

1. (f) Low back pain (LBP) is a common complaint among women during and after pregnancy. Pregnancy-related LBP, pregnancy-related pelvic girdle pain, lumbopelvic pain, pelvic girdle pain, and lumbar pain are all patterns of LBP during and after pregnancy described in the literature.

#### **Diabetes Mellitus Coding Training for Family Practice Residents**

Geraldine N. Urse, DO, MHPed

2. (d) Thirty-nine codes are associated with diabetes mellitus in *International Classification of Diseases, Ninth Revision, Clinical Modification*.
3. (c) The Physician Quality Reporting System was established by the US Centers for Medicare & Medicaid Services as a voluntary reporting process for physicians through which they can receive additional reimbursement for reporting patient care parameters for patients with chronic diseases.

### Heart Failure With Preserved Ejection Fraction

Felix J. Rogers, DO; Teja Gundala, MD; Jahir E. Ramos, DO; and Asif Serajian, DO

4. (e) Patients with heart failure and preserved ejection fraction (HFpEF) may seem to have unexplained dyspnea and fatigue because they do not show obvious signs of heart failure such as neck vein elevation and ankle edema. In patients with normal ejection fraction, the diagnosis is confirmed by evidence of diastolic dysfunction. Increased left ventricular chamber size by echocardiography is *not* a marker of diastolic dysfunction. Patients with HFpEF typically have a left ventricular chamber that is normal in size. The European Society of Cardiology uses a left ventricular volume index  $>97 \text{ mL/M}^2$  to exclude consideration of HFpEF.
5. (e) Medications are not effective in the treatment of patients with HFpEF, but exercise training has been shown to be helpful. Reduced mortality and reduction in 30- and 90-day hospital readmission rates are not proven benefits of exercise training. However, exercise training does improve measures of myocardial performance in addition to enhancing exercise capacity and quality of life scores.

### Improving Resident Performance Through a Simulated Rapid Response Team: A Pilot Study

Peter A. Burke, DO; Michael T. Vest, DO; Hemant Kher, PhD; Joseph Deutsch, MD; and Sneha Daya, MD

6. (d) Since the institution of rapid response teams, there have been national improvements or reduction in inpatient non-intensive care unit cardiac arrest.
7. (b) Ninety-five percent of US hospitals have rapid response teams in place.

### Effects of Osteopathic Manipulative Treatment on Diabetic Gastroparesis

Valerie J. Van Ravenswaay, OMS V, MPH; Simeon J. Hain, DO; Sierra Grasso, OMS II; and Jay H. Shubrook, DO

8. (a) Osteopathic manipulative treatment techniques performed on the occipital, thoracic, abdominal, and pelvic diaphragms were found to reduce nausea and vomiting after the initial visit.
9. (c) Osteopathic manipulative treatment may be helpful in improving diabetic gastroparesis symptoms and quality of life of patients with diabetic gastroparesis.

### Pheochromocytoma Diagnosis After an Abnormal Stress Test: Case Report and Review of the Literature

German Treyger, OMS IV; Shawn A. Silver, OMS IV; and Alla A. Sakharova, MD

10. (b) Among individuals with hypertension, 0.1% are found to have confirmed pheochromocytoma.
11. (c) Surgical excision of the tumor causing the unstable fluctuation in hormones is the only definitive treatment for patients with pheochromocytoma.