



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 March 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 September 30, 2016:

American Osteopathic Association
Division of CME
142 E Ontario St
Chicago, IL 60611-2864
Fax: (312) 202-8202

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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 April 2015 issue of the JAOA.

Osteopathic Manipulative Treatment Use in the Emergency Department: A Retrospective Medical Record Review

Brian Ault, MS, DO, and David Levy, DO

1. During the study period, osteopathic physicians typically performed osteopathic manipulative treatment in the emergency department...

- (a) annually.
- (b) daily.
- (c) monthly.
- (d) weekly.
- (e) never.

Effectiveness of Osteopathic Manipulative Treatment for Carpal Tunnel Syndrome: A Pilot Project

Taylor Burnham, OMS III;

Derek C. Higgins, DO; Robert S.

Burnham, MD; and Deborah M. Heath, DO

2. Which of the following treatments is *not* an evidence-based treatment for patients with carpal tunnel syndrome (CTS)?

- (a) surgical release of the transverse carpal ligament
- (b) finger flexor strengthening exercises
- (c) intracarpal tunnel corticosteroid injection
- (d) neutral wrist splinting

3. The following sign or symptom is *not* associated with CTS:

- (a) slowing of sensory conduction velocity of the median nerve across the wrist
- (b) positive Finkelstein test result
- (c) median nerve swelling proximal to the transverse carpal ligament (carpal tunnel inlet)
- (d) nocturnal hand numbness and tingling

Adult-Acquired Hidden Penis in Obese Patients: A Critical Survey of the Literature

Chase T. Cavayero, OMS II; Meghan A.

Cooper, OMS IV; and Stephen L. Harlin, MD

4. The first step in exteriorization of the penis should be...

- (a) panniculectomy/lipectomy.
- (b) penile scar tissue release.
- (c) suspensory ligament release.
- (d) tacking of the penile base to the rectus abdominis fascia.

5. Which of the following procedures should be considered if penile release results in inadequate length:

- (a) suspensory ligament release
- (b) panniculectomy
- (c) escutcheonectomy
- (d) penile prosthesis

Osteopathic Medical Students' Understanding of the Patient Protection and Affordable Care Act: A First Step Toward a Policy-Informed Curriculum

Elizabeth Ann Beverly, PhD; Daniel

Skinner, PhD; Joseph A. Bianco, PhD;

and Gillian H. Ice, AB, MPH, PhD

6. The cross-sectional Patient Protection and Affordable Care Act (ACA) survey of 239 first- and second-year osteopathic medical students revealed which of the following findings:

- (a) Students expressed uncertainty about many of the ACA's most central provisions.
- (b) Students had a clear understanding of payment reform (eg, fee-for-service, Medicare payments).
- (c) Students' responses did not appear to be susceptible to media-driven ACA myths.
- (d) Students agreed that more medical students would elect to practice primary care in the future under the ACA.
- (e) Students did not express concern about small physician practices being bought out by larger practices or hospitals as a result of the ACA.

7. Medical schools will need to incorporate the various dynamics of health care reform, including the ACA, into the medical education curriculum for which of the following reasons:
- (a) Medical students will be practicing under this new health care system, unless it is repealed or defunded.
 - (b) Medical schools are responsible for training students properly for the practice of medicine.
 - (c) Medical students will play a pivotal role in the implementation, modification, and advocacy for or against the ACA in the future.
 - (d) both a and c
 - (e) all of the above

Postoperative Singultus:

An Osteopathic Approach

Kristie Petree, DO, and Jonathan Bruner, DO

8. The respiratory diaphragm is primarily innervated by the phrenic nerve, which originates at which of the following spinal levels:
- (a) C1-C3
 - (b) C2-C4
 - (c) C3-C5
 - (d) C4-C6

Answers to the February 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.

Duration and Magnitude of Myofascial Release in 3-Dimensional Bioengineered Tendons: Effects on Wound Healing

Thanh V. Cao, BSc; Michael R. Hicks, PhD; Manal Zein-Hammoud, PhD; and Paul R. Standley, PhD

1. (d) Fibroblasts do not serve the function of presentation of antigen markers to activate lymphocyte activity.
2. (c) Long duration and low magnitude strain improve wound-healing times in vitro.

Osteopathic Manipulative Treatment for Self-Reported Fatigue, Stress, and Depression in First-Year Osteopathic Medical Students

Sarah Wiegand, OMS IV, MSc; William Bianchi, OMS IV, MSc; Thomas A. Quinn, DO; Mark Best, MD, MBA, MPH, MS; and Thomas Fotopoulos, DO

3. (c) The nondirected osteopathic manipulative treatment protocol focused on the pelvis and extremities. It was used to account for potential benefits in self-reported distress symptoms related to physician touch and resting for 10 minutes after

treatment. The treatments chosen included balanced ligamentous tension of upper and lower extremities, unwinding of upper and lower extremities, and pelvic neuromuscular release.

4. (b) The directed osteopathic manipulative treatment group had a statistically significant improvement in fatigue symptoms only. Self-perceived stress and depression scores were noted to decrease, but these findings were not found to be statistically significant.

Lidocaine-Induced Methemoglobinemia: A Clinical Reminder

Mark Barash, DO; Keith A. Reich, DO, RhMSUS; and Dennis Rademaker, DO

5. (c) Prilocaine is known to be the most potent compound to cause methemoglobinemia.
6. (c) Patients generally begin to exhibit anxiety, lightheadedness, headache, and tachycardia at methemoglobin concentrations of 3.0 to 4.5 g/dL, or 20% to 30% total hemoglobin.

Relationship of Admissions Variables and College of Osteopathic Medicine Variables to Performance on COMLEX-USA Level 3

Helen H. Baker, PhD, MBA; Victoria L. Shuman, DO; Lance C. Ridpath, MS; Lorenzo L. Pence, DO; Robert M. Fisk Jr, PhD, MA; and Craig S. Boisvert, DO

7. (d) COMLEX-USA Level 2-Cognitive Evaluation score was most closely related to COMLEX-USA Level 3 performance.
8. (a) A weak relationship was found between performance on COMLEX-USA Level 3 and admission variables (ie, MCAT [Medical College Admissions Test] scores and grade point averages).

Resolution of Dacryostenosis After Osteopathic Manipulative Treatment

Theresa E. Apoznanski, OMS III; Reem Abu-Sbaih, DO; Michael J. Terzella, DO; and Sheldon Yao, DO

9. (c) Dacryostenosis can be caused by the frontal process of the maxilla being driven posteriorly during birth. This event can cause the osseous canal through which the nasolacrimal duct traverses to narrow. Spontaneous resolution occurs in 96% of cases by age 12 months. It can be diagnosed clinically based on the symptoms of ocular discharge and epiphora. The fluorescein-stained saline test can be used to evaluate for nasolacrimal duct obstruction if symptoms are not present at the time of examination. The chance of spontaneous resolution decreases between ages 6 and 12 months. The function of the lacrimal gland is not related to dacryostenosis.