

# JEH QUIZ

## FEATURED ARTICLE QUIZ #6

### Lead Source Attribution by Stable Isotope Analysis in Child Risk Assessment Investigations

→ Quiz effective date: May 1, 2023 | Quiz deadline: August 1, 2023

Available to those with an active National Environmental Health Association (NEHA) membership, the *JEH* Quiz is offered six times per calendar year and is an easily accessible way to earn continuing education (CE) contact hours toward maintaining a NEHA credential. Each quiz is worth 1.0 CE.

Completing quizzes is now based on the honor system and should be self-reported by the credential holder. Quizzes published only during your current credential cycle are eligible for CE credit. Please keep a copy of each completed quiz for your records. CE credit will post to your account within 3 business days.

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#### INSTRUCTIONS TO SELF-REPORT A *JEH* QUIZ FOR CE CREDIT

1. Read the featured article and select the correct answer to each *JEH* Quiz question.
2. Log in to your MyNEHA account at <https://neha.users.membersuite.com/home>.
3. Click on Credentials located at the top of the page.
4. Select Report CEs from the drop-down menu.
5. Enter the date you finished the quiz in the Date Attended field.
6. Enter 1.0 in the Length of Course in Hours field.
7. In the Description field, enter the activity as "*JEH* Quiz #, Month Year" (e.g., *JEH* Quiz 6, May 2023).
8. Click the Create button.

#### **JEH Quiz #4 Answers** January/February 2023

- |      |      |      |       |
|------|------|------|-------|
| 1. c | 4. d | 7. a | 10. c |
| 2. d | 5. a | 8. a | 11. c |
| 3. b | 6. e | 9. a | 12. b |

1. The primary intervention for a child with a case of lead poisoning is to remove the sources of lead from the child's environment.
  - a. True.
  - b. False.
2. Lead isotope analysis (LIA) is based on the \_\_\_ stable, naturally occurring isotopes of lead that all have relative abundances in the Earth's crust.
  - a. two
  - b. three
  - c. four
  - d. five
3. To be eligible for the case series in this study, a child with a case of lead poisoning must have met the following criteria:
  - a. peak venous blood lead level (BLL)  $\geq 10$   $\mu\text{g}/\text{dl}$ .
  - b. age  $\leq 6$  years.
  - c. resided in southern Wisconsin.
  - d. all of the above.
  - e. none of the above.
4. Lead in surface coatings was identified in this study using an X-ray fluorescence instrument and a lead dust hazard for floors was defined as
  - a.  $\geq 0.7$   $\text{mg}/\text{cm}^2$ .
  - b.  $\geq 40$   $\mu\text{g}/\text{ft}^2$ .
  - c. 200  $\mu\text{g}/\text{ft}^2$ .
  - d. 1,200 ppm.
5. Case 1 involved a female at 24 months with a BLL of
  - a. 10  $\mu\text{g}/\text{dl}$ .
  - b. 12  $\mu\text{g}/\text{dl}$ .
  - c. 14  $\mu\text{g}/\text{dl}$ .
  - d. 16  $\mu\text{g}/\text{dl}$ .
6. For case 1, 1.5 years after the initial BLL and after the family's home was remediated, the child's venous BLL decreased to
  - a. 4  $\mu\text{g}/\text{dl}$ .
  - b. 5  $\mu\text{g}/\text{dl}$ .
  - c. 6  $\mu\text{g}/\text{dl}$ .
  - d. 7  $\mu\text{g}/\text{dl}$ .
7. In case 2, lead isotope ratios in blood were similar to the street lateral water pipe but dissimilar to
  - a. tap water.
  - b. the floor lateral pipe.
  - c. all of the above.
  - d. none of the above.
8. In case 3, the highest lead concentrations were
  - a. the interior windowsills.
  - b. the porch entry floor.
  - c. the backyard play area.
  - d. all of the above.
  - e. none of the above.
9. In case 4, the risk assessment found lead hazards in the walls, floors, and points of entry of the home.
  - a. True.
  - b. False.
10. In case 6, the child's BLL at 22 months after the initial BLL decreased to
  - a. 5  $\mu\text{g}/\text{dl}$ .
  - b. 6  $\mu\text{g}/\text{dl}$ .
  - c. 7  $\mu\text{g}/\text{dl}$ .
  - d. 8  $\mu\text{g}/\text{dl}$ .
11. In this study, cases 4–6 demonstrated that LIA was able to identify the most common household exposure: legacy lead-based paint exposure via hand-to-mouth behavior.
  - a. True.
  - b. False.
12. Water was \_\_\_ as the dominant or likely source of lead in the cases investigated in this study.
  - a. not observed
  - b. weakly observed
  - c. strongly observed