

## What Parents Need to Know About the Risks of Lead Exposure for Children

Lead is a chemical element that is found naturally in the earth's crust. While lead has some beneficial uses, it can be toxic to people of all ages and cause negative health effects.

Lead levels can be measured in the blood to tell how much exposure to lead a person has had. Even low levels of lead in blood have been shown to affect children's abilities to learn, pay attention, and do well in school. There is no safe level of lead.

Children can be exposed to lead from different sources such as paint, gasoline, and other products such as some types of folk medicine. Children may also be exposed to air, food, water, dust, and soil that has lead in it. The most common source of dangerous lead levels in children is from lead-based paint in houses. In homes built before 1940, 87% of those homes have lead in the paint.

### Should My Child Be Tested for Lead?

If you think your child has been exposed to lead, talk to your pediatrician. Pediatricians should screen all children for risk factors that may show increased lead exposure. These questions may include the age of the home or parents' jobs or hobbies. The only way to know for sure whether your child has been exposed to lead is by a blood test.

### What Parents Can Do

- Find out if your home has lead.
  - Ask the landlord about lead before you sign a lease.
  - Before buying a house, ask to have it inspected for lead.
  - If your home was built before 1978, you can contact your local health department to find out how to get your home tested for lead.
- If you are planning work on your home, learn how to protect your family from lead exposure during repairs.
  - When repairs are being done, it is important to seal off the area until the job is done. Keep your child away from that area until everything is finished and cleaned.
  - The Environmental Protection Agency has information about hiring contractors who are certified as lead-safe: <https://www.epa.gov/lead>
- Do not bring lead home with you.
  - Wipe your feet on mats when you enter your home, especially if you work in a job that has exposure to lead.
  - If you live in an old house, do not let your children play in bare soil because it may have lead in it. Cover soil with mulch, wood chips, or grass where possible.

### Lead Exposure

Even low levels of lead in blood have been shown to negatively affect children's abilities to learn, pay attention, and do well in school. There is no safe level of lead.

### What Parents Can Do

- Identify if your home has lead.
- Most common source of lead is from lead-based paint in houses (especially before 1940).
- Remove lead-based products.
- Prevent bringing lead into the home from work or while doing home repairs.
- Do not let children play in bare soil.
- When using tap water for mixing formula, or for cooking, let water run for several minutes before using.
- Screen child if lead exposure suspected. A pediatrician can do this by blood tests.

Remember, lead exposure is completely preventable. By taking the necessary steps, this risk factor can be handled effectively in your home.



- If your work or hobbies involve lead, change your clothes and shower when finished.
- When using tap water for mixing formula, drinking, or cooking, let the water run for a couple minutes before using it in the morning.

### FOR MORE INFORMATION

Centers for Disease Control and Prevention:  
<https://www.cdc.gov/nceh/lead/parents.htm>

Author: Megan A Moreno, MD, MEd, MPH

Published Online: December 26, 2017. doi:10.1001/jamapediatrics.2017.4778

Conflict of Interest Disclosures: None reported.

The JAMA Pediatrics Patient Page is a public service of JAMA Pediatrics. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your child's medical condition, JAMA Pediatrics suggests that you consult your child's physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call 312/464-0776.

## Online Quiz Questions

### Association of Age With Risk of Hospitalization for Respiratory Syncytial Virus in Preterm Infants With Chronic Lung Disease

- Most infants with chronic lung disease in this study were born at what gestational age?
  - 22 to 23 weeks.
  - 24 to 29 weeks.
  - 30 to 36 weeks.
  - 37 to 40 weeks.
- What is the risk of respiratory syncytial virus-associated hospitalization at 1 month of age for term infants?
  - 9 per 1000 patient season-months.
  - 50 per 1000 patient season-months.
  - 200 per 1000 patient season-months.
  - 500 per 1000 patient season-months.
- The risk of hospitalization for respiratory syncytial virus among preterm infants with chronic lung disease was similar to that of a 1-month-old term infant at approximately what age?
  - 6 months.
  - 12 months.
  - 18 months.
  - 30 months.
- At what age did respiratory syncytial virus-associated hospitalizations peak for preterm infants with chronic lung disease?
  - 3 months.
  - 6 months.
  - 9 months.
  - 12 months.

#### Educational Objective

To determine the age when the risk of hospitalization for respiratory syncytial virus among preterm infants with chronic lung disease becomes equivalent to the risk for healthy, 1-month-old term infants who do not qualify for immunoprophylaxis.

#### Publication Date

February 5, 2018

#### Expiration Date

February 5, 2021



Read the **CME designated article** on page 154



To receive **CME credit**, you must complete the quiz online at [jamanetwork.com/learning](http://jamanetwork.com/learning).

**CME and MOC Credit:** You may earn CME credit by reading the CME-designated article in this issue of *JAMA Pediatrics* and taking the quiz online. To complete the CME quiz online you must be a physician paid subscriber to *JAMA* or the journal in which the quiz is published or an AMA member. Members may complete the CME quizzes offered in *JAMA* and the 11 specialty journals. To participate, go to [jamanetwork.com/learning](http://jamanetwork.com/learning). This CME activity may also be eligible for Self-assessment Maintenance of

Certification (MOC) for some specialties. Contact specific boards for eligibility information. The American Medical Association (AMA) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education (CME) for physicians. The AMA designates this educational activity for a maximum of 1.0 AMA PRA Category 1 Credit™ (per issue). Physicians should only claim credit commensurate with the extent of their participation in the activity.