Cake Decorating Luster Dust Associated with Toxic Metal Poisoning

The October 29, 2021, CDC’s Morbidity and Mortality Weekly Report (MMWR) recently reported about investigations that were conducted in 2018-2019 in Rhode Island and Missouri concerning heavy metal poisonings associated with commercially and home-prepared cakes using “luster-dusts,” which were found to contain high levels of copper, lead, and other metals.

Many decorative glitters and dusts are sold over the internet and in craft and bakery supply stores under names such as luster dust, disco dust, twinkle dust, sparkle dust, highlighter, shimmer powder, pearl dust, and petal dust. Numerous online instructional platforms promote the use of these glitters and dusts to decorate foods such as cakes, cupcakes, and cake pops.

Labeling discrepancies and inappropriate use of products labeled “nontoxic” vs. “edible” were found to be significant causes for the poisonings in the investigations in both states. Some glitters and dusts are edible, are made from ingredients that can be safely eaten, and are produced specifically for use on foods. Most will state “edible” on the label. Companies that make these products are required by law to include a list of ingredients on the label. “Labeling indicating that a product is nontoxic does not imply that the product is safe for consumption,” the authors of the MMWR indicate. “Explicit labeling indicating that nonedible products are not safe for human consumption is needed to prevent illness and unintentional poisonings.”

In the investigations in both Rhode Island and Missouri, cake frosting was found to contain the toxic metals. The birthday cake in Rhode Island left six children severely ill, causing one to be taken to the emergency department. The cake was produced in a commercial bakery, and investigators identified the dust used in decorations as “fine copper powder” that was initially sold as “metallic pigment for consumer goods such as floor coverings.” Though the dust was labeled “nontoxic” and “nonedible.” Laboratory testing indicated that the frosting contained 22.1 mg of copper per gram of rose gold frosting, which would equate to nearly 900 mg of copper on each cake slice. That is 1,000-fold higher than the daily recommended intake of copper for adults. Similar findings regarding toxic metals and labeling issues were discovered in the Missouri investigation. However, that discovery indicated that the “dust” used was 25% lead. In response to all of these findings, the FDA issued an advisory.
Recognizing Pica

Pica is a compulsive eating disorder in which people eat nonfood items. Dirt, clay, and flaking paint are the most common items eaten, which places children with this eating disorder at high risk for lead toxicity. Many babies and toddlers put nonfood items in their mouths at one time or another as a part of their normal development. They do this to explore and learn. Although this behavior is normal, warning signs that a child may have pica include: repetitive consumption of nonfood items, despite efforts to restrict it for a period of at least one month or longer; the behavior is considered inappropriate for the child's age or developmental stage (older than 18-24 months); and the behavior is not part of a cultural, ethnic, or religious practice. The disorder is more common in children, affecting 10% to 30% of young children ages 1 to 6. On rare occasions, pregnant women also will crave strange, nonfood items.

Doctors don't know exactly what causes pica, but it is more common in people with mental health issues, such as obsessive-compulsive disorder, and developmental problems, such as autism, or intellectual disabilities. This Parent’s Guide to Managing Pica in Children with Autism provides useful information, suggestions and tips for parents concerning the challenges of caring for children with the eating disorder. Pica is also more common in people with malnutrition or hunger. Non-food items might help give a feeling of fullness. Low levels of nutrients like iron or zinc might trigger specific cravings.

There is no single test for pica. However, because pica can occur in people who have poor nutrition and because of the hazards that would be possible as a result of the item being consumed, physicians might check for anemia or other nutrition problems, test lead levels, do stool tests to check for parasites, and order x-rays or other imaging tests to find out what the child ate.

Treatment for pica will address several areas. Doctors can help parents manage and stop pica-related behaviors by working with them on ways to restrict the nonfood item the child craves (i.e., using child-safety locks and high shelving). Parents can also teach their children what is safe to eat and what is not and offer a well-balanced diet. Some children require behavioral intervention, and families may need to work with mental health professionals.

“Most children outgrow pica as they get older. It usually goes away in a few months. However, high-risk populations, such as children and adults with intellectual or developmental disabilities, may need continued monitoring of their behavior and environment.”

Sources: Medline Plus, KidsHealth, FamilyDoctor.org

New Brochure Resource Now Available

“WELL FED MEANS LESS LEAD”

A new family resource has been added to the list of brochures and other publications that are available for LHDs to order free of charge from the Lead and Healthy Homes Division (LHHD). This brochure provides families information about how good nutrition and three key nutrients – Calcium, Iron, and Vitamin C – can play a role in protecting the body from the harmful effects of lead. Brochures can be ordered by adding the title to the Supply Order Form, which is found on the LHHD website. Other available brochures and publications are found in the Publications link on the same page and are ordered in the same way. For questions, contact Kari Horsley at khorsley@isdh.in.gov or Sue Henry at shenry@isdh.in.gov.

CONTACT US
IDOH Lead & Healthy Homes
317.232.1250
Website found here

Lead & Healthy Homes Division
Website Highlight
COMING SOON!!
The division website is currently undergoing a major redesign! New sections with information for parents, physicians and expanded resources available for all site users will be added.
Milestone Tracker mobile app
- View the Milestones in Action photo and video library
- “Learn the Signs. Act Early” Developmental screening tools

Case Management Tip

Essential NBS Requirements

1. The NBS Case Investigation (CI) is the required location for All documentation of case management activities for each patient under investigation and should be maintained as the primary location for patient care documentation.
2. If they choose to do so, LHDs may also maintain their own patient care records as an additional location to document the care being provided to the children receiving case management services. However, NBS should be the primary location for all documentation.
3. All nurse’s notes and documentation of care and case management activities should be documented ONLY in the “Case Management Tab” of the CI.

All of the information that is provided in a case investigation is valuable and reflects the important work you are providing for that child in their progress towards a reduced blood lead level. Contact Teresa Kirby, tkirby@isdh.in.gov, or Lyland Murphy Ward, lmurphyward@isdh.in.gov, if you have questions or for assistance.

Lead Health Services Initiative Grant

The goal of the Lead Protection Program partnership between the Indiana Housing & Community Development Authority and the IDOH is to lead Indiana’s effort to remediate lead-based paint hazards in households in the state. The Lead Health Services Initiative grant funded by the Children’s Health Initiative Program (CHIP) provides assistance to eligible families within target areas in the state. Families outside of target areas are also eligible for assistance on a case-by-case basis. Assistance is free to the families, whether they rent or own, and includes a Lead Inspection Risk Assessment and the services of licensed lead abatement contractors to abate lead hazards.

LHD staff are encouraged to assist families in applying for grant-funded assistance. For more information, contact the Lead Programs Manager at Indiana Community Action Association, Jim Blazek, at jblazek@incap.org or 317-638-4232, ext.217. For assistance available through the Lead Hazard Reduction Demonstration Program grant funded by HUD, contact Lead Grant Manager David Pugh at dpugh@ihcda.in.gov or 317-234-6289. Applications are available upon request.

LeadCare Blood Lead Tests Recall

In early July 2021, Magellan Diagnostic, Inc., recalled LeadCare II, LeadCare Plus, and LeadCare Ultra Blood Lead Test kits due to a significant risk of falsely low blood lead level results and the risks that would be caused from those false results. The FDA initially notified CDC in June 2021 that Magellan Diagnostics was voluntarily recalling specific blood lead test kits. Currently, the recall has extended to include the majority of all test kits distributed by Magellan since October 27, 2020. Product distribution has been paused until further notice, and replacement product is currently unavailable.
The CDC issued a Health Alert Network (HAN) Health Update, HAN Update 454, on October 14, 2021, summarizing the FDA’s notifications concerning the recall. On November 5, 2021, the CDC issued an updated HAN, HAN Update 457. The purpose of this update is to clarify options and recommendations for clinicians for the retesting of children who were tested with the recalled LeadCare lead test kits. The information in this HAN Update remains the same as HAN Update 454, except for the new information added below in bold that is located in the Recommendations for Clinicians section.

- Retesting should be done by higher complexity testing (ICP-MS or GFAAS) with either a venous or a capillary blood sample. Capillary screening results above the blood lead reference value should be confirmed with blood drawn by venipuncture. Please note that effective October 28, 2021, CDC has updated its blood lead reference value (BLRV) from 5 µg/dL to 3.5 µg/dL in response to the Lead Exposure Prevention and Advisory Committee recommendation made on May 14, 2021.

Regarding the information above concerning the updated CDC blood lead reference value: On Thursday, October 28, 2021, CDC updated its population-based blood lead reference level to 3.5 µg/dL. This drop from the previous level of 5.0 µg/dL (established in 2012) was made with no advance notice to states or CDC grantees. IDOH is currently evaluating the new guidance to better understand its impact.

HUD Lead Based Paint & Home Health Safety Hazard Grant Funds Awarded to South Bend

The City of South Bend was one of 28 state and local government agencies in 29 states that were recently awarded grant funds from the U.S. Department of Housing and Urban Development’s (HUD) Lead Based Paint Hazard Reduction Grant Program and Healthy Homes Supplemental funding, with the goal of protecting children and families from lead-based paint and other home health and safety hazards.

“With these grants, HUD makes it clear that ensuring healthy and safe homes for families is a top priority,” said Secretary Marcia L. Fudge. “A healthy home provides a foundation for a healthy life, and that is why HUD is committed to protecting families from lead and other home health hazards and providing healthy and sustainable housing.” With these funds, the City of South Bend will address lead hazards in 130 housing units, providing safer homes for low and very low-income families and children. The City will also be working closely with other medical and social services providers and community partners to promote the success of the program.