DELAWARE HEALTH ALERT #512: Presence of High Levels of Lead in Certain Cinnamon Products

The Delaware Division of Public Health (DPH) is issuing this health alert to advise clinicians that the U.S. Federal Drug Administration (FDA) has identified high lead levels in several ground cinnamon products.

Summary

Clinicians are encouraged to offer blood lead level (BLL) testing to those who have consumed these specific products and/or who have symptoms compatible with lead toxicity

Background

Following the October 2023 recall of cinnamon apple puree and applesauce products due to high lead levels, the FDA initiated a targeted survey and analysis of ground cinnamon products from discount retail stores. Based on results from their investigation, the FDA is recommending recalls of ground cinnamon from six distributors whose products had high leads including the following products:

- Marcum Ground Cinnamon from Save A Lot
- MK from SF Supermarket
- Swad Cinnamon Powder from Patel Brothers
- Supreme Tradition Ground Cinnamon from Dollar Tree & Family Dollar
- Eli Chilar, from La Joya Morelense
- La Fiesta from La Superior SuperMercados

No level of lead in children's blood has been identified as being safe. The Centers For Disease Control and Prevention (CDC) uses a blood lead reference value (BLRV) of 3.5 µg/dL to identify children with BLLs that are higher than most children's levels. The BLL can be obtained using a capillary or venous blood draw. Capillary lead levels ≥3.5 µg/dL require confirmatory testing with a venous blood lead level.

Lead toxicity primarily targets the central nervous system. Although children with lead exposure may have no apparent acute symptoms, even low levels of lead have been associated with learning, behavioral, and cognitive deficits. A person who is exposed to large amounts of lead may develop acute lead poisoning, presenting with gastrointestinal, hematological, and neurological effects, including but not limited to anemia, abdominal pain, weakness, and severe neurological sequelae. Some effects of lead poisoning in a child may continue into adulthood. Adults who have high BLLs may also experience adverse health consequences.

Managing acute lead poisoning includes eliminating the exposure, providing supportive and symptomatic care, and quantifying lead exposure by checking BLLs. Patients who are symptomatic with elevated BLLs may require hospital admission for monitoring and chelation therapy

Recommendations for Clinicians

1) Consider lead exposure in the differential diagnosis of patients presenting with compatible clinical findings associated with lead poisoning, which may include the following:
    a) Constitutional symptoms such as generalized weakness, fatigue, malaise, arthralgias, myalgias, irritability, anorexia, insomnia, and weight loss.
    b) Abdominal pain ("lead colic"), constipation, nausea, and other gastrointestinal symptoms.
    c) Anemia (normochromic or microcytic, possibly with basophilic stippling).
    d) Central nervous system effects, such as headache, impaired visual-motor coordination, tremor, and, in severe cases, seizure, encephalopathy, and coma.
    e) Stunted growth, hearing problems, impaired neurobehavioral development, and failure to meet expected developmental milestones.
    f) Impaired kidney function
2) Offer Blood lead level testing to patients who present with symptoms compatible with lead toxicity and/or who report exposure to products on FDA's list of recalled products.

3) Become familiar with CDC's testing recommendations for lead, indications for confirmatory testing, and recommended actions based on BLL..
4) For patients with elevated BLL, obtain early consultation with or provide a referral to a medical toxicologist or pediatric specialist with expertise in managing lead poisoning.
5) Report suspected cases of lead poisoning to DPH by emailing the Lead Poisoning Prevention Program at HSPContact@Delaware.gov.

Additional Information

1. FDA Alert Concerning Certain Cinnamon Products Due to Presence of Elevated Levels of Lead | FDA
2. Childhood Lead Poisoning Prevention Program
3. Testing Children for Lead Poisoning | Lead | CDC

References

1. Agency for Toxic Substances and Disease Registry. Toxicological profile for lead. Atlanta, GA: U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry; 2020. https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=96&tid=22

2. CDC. Recommended actions based on blood lead level. Atlanta GA: US Department of Health and Human Services, CDC; 2021. https://www.cdc.gov/nceh/lead/advisory/acclpp/actions-blls.htm

3. Egan KB, Cornwell CR, Courtney JG, Ettinger AS. Blood lead levels in U.S. children ages 1–11 years, 1976–2016. Environ Health Perspect 2021;129:37003. https://doi.org/10.1289/EHP7932 PMID:33730866

4. Ruckart PZ, Jones RL, Courtney JG, LeBlanc TL, Jackson W, Karwowski MP, Cheng P, Allwood P, Svendsen ER, Breysse PN. Update of the Blood Lead Reference Value — United States, 2021. *MMWR.* 2021; 70(43):1509–1512.

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