

# *epi*TRENDS

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## Lead Contamination in Cinnamon Applesauce

An investigation of elevated blood lead levels identified through routine testing of a child in North Carolina led to the discovery of lead contamination in cinnamon apple puree pouches sold nationwide.

### Background

Lead is a neurotoxin considered to have no safe body level. Children with elevated lead can develop a wide range of adverse health outcomes including negative impact on growth and development. While pediatric lead levels increased with industrialization, exposures to lead have been reduced over the past century through safer standards for products such as paint, gasoline, toys, canned goods, water pipes, and jewelry.

To determine action levels for lead exposure, blood lead levels are evaluated against a reference value, which has decreased over time to the current value of 3.5 µg/dL. Washington state's recommended blood lead action level is 5 µg/dL, though two Local Health Jurisdictions are responding at the Centers for Disease Control and Prevention's (CDC) reference level of 3.5 µg/dL announced in 2021.



[Investigation of Elevated Lead & Chromium Levels: Cinnamon Applesauce Pouches \(November 2023\) | FDA](#)

On October 28, 2023, the US Food and Drug Administration (FDA) issued a public health advisory regarding lead contamination in Wana Bana brand Cinnamon Fruit Puree pouches, followed by a voluntary recall of the product on October 31, 2023. The pouches were sold nationally through multiple retailers including discount chain stores and online retail outlets and were sold in Washington state. Schnucks and Weis-brand pouches were later included in the recall but these brands are not sold in this state.



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CDC notified state Childhood Lead Poisoning Prevention Programs of the recall as a nationwide response began. Federal, state, and local agencies worked together to remove the product from store shelves, notify stores and consumers about the recalled product, monitor exposures, and support families impacted by lead exposure from the products. On November 21, 2023, the CDC announced a multistate outbreak investigation associated with consumption of the recalled applesauce products and asked state public health departments to compile and report possible cases of higher blood lead levels due to the products.

CDC provided public health agencies with specific investigation guidance and case definitions for the outbreak. To be considered in the CDC’s case count for the investigation, the person must have had a blood lead level of 3.5µg/dL or higher measured within three months after consuming a recalled product after November 2022. The cases are further classified as “suspect,” “probable,” or “confirmed” based on test type (venous or capillary) and whether other potential sources of lead exposure have been ruled out.

### **Washington State’s Response**

The Washington State Department of Health (DOH) Childhood Lead Poisoning Prevention Program initially responded to the recall notice by forwarding the FDA’s public health advisory to local program partners, as well as conducting general outreach through social media posts and web page updates. These notices advised parents and caregivers to not eat or feed the product to children, to dispose of the product immediately, and to ask a child’s health care provider for a blood lead test if the product had been recently consumed.

In early November 2023, the FDA requested that all states check discount chain store locations for the presence of the recalled product. The DOH Childhood Lead Poisoning Prevention Program collaborated with DOH Environmental Public Health Food Safety Program and with local health jurisdictions (LHJs) to visit over 50 stores in one day. Investigators found the recalled products on the shelves in seven locations.

The DOH Childhood Lead Poisoning Prevention Program then worked closely with LHJs to

coordinate case investigations and data collection. DOH has sent weekly case updates to CDC since December. Based on the CDC case definitions, Washington state public health agencies identified a total of ten cases among eight counties: five probable and five suspect. The initial blood lead levels among cases ranged from 3.7µg/dL to 15.5µg/dL, with most initial levels below 10µg/dL and none at levels needing medical intervention. Nine of the cases were retested after consumption of the applesauce stopped and showed decreased blood lead levels. Follow-up data on the remaining case is unavailable.

#### **Recommendation**

- Consumers should not eat, sell, or serve [recalled WanaBana](#), Schnucks, or Weis-brand apple cinnamon pouches and should discard them.
- These products have a long shelf life. Consumers should check their homes and discard these products.
- To properly discard the product, consumers and retailers should carefully open the pouch and empty the content into a trash can before discarding the packaging to prevent others from salvaging recalled product from the trash. Clean up any spills after discarding the product then wash your hands.
- Contact your healthcare provider if you think you or your child may have symptoms of lead toxicity after eating recalled fruit pouches.
- Most children have no obvious immediate symptoms of lead exposure. If there’s suspicion that a child may have been exposed to lead, **parents should talk to their child’s healthcare provider about getting a blood test**

[Investigation of Elevated Lead & Chromium Levels: Cinnamon Applesauce Pouches \(November 2023\) | FDA](#)

### **Current Status**

Early in its investigation, FDA identified cinnamon as the source of the lead contamination. FDA product testing also identified high levels of chromium, in addition to lead, in cinnamon samples and in the recalled applesauce pouch products. On February 29, 2024, FDA confirmed that the contaminant was lead chromate. While health effects of high levels of chromium consumption are not well documented, it is known that there is no safe level of lead. The CDC continues to recommend discarding all affected products, and anyone who may have eaten the recalled products should consult with their health care providers.

As of February 23, 2024, CDC has identified a total of 468 cases from 44 states including the ten from Washington:

Confirmed cases: 111  
Probable cases: 320  
Suspect cases: 37

While this recall continues to make national headlines, CDC and FDA are wrapping up the active investigation. Regular meetings with states ended as of February 14, 2024, and the states will stop reporting cases linked to the recalled product after April 1, 2024. The timely, coordinated response between federal, state, and local public health allowed for successful identification and support of impacted families and swift removal of the recalled products off retail shelves. On March 6, 2024, FDA issued a new alert concerning elevated levels of lead in certain other cinnamon products.

### **Resources**

FDA Investigation of Elevated Lead & Chromium Levels: Cinnamon Applesauce Pouches (November 2023). <https://www.fda.gov/food/outbreaks-foodborne-illness/investigation-elevated-lead-chromium-levels-cinnamon-applesauce-pouches-november-2023>

FDA cinnamon product alert: <https://www.fda.gov/food/alerts-advisories-safety-information/fda-alert-concerning-certain-cinnamon-products-due-presence-elevated-levels-lead>

CDC Health Alert Network regarding recalled cinnamon-containing applesauce (November 13, 2023): <https://emergency.cdc.gov/han/2023/han00500.asp#:~:text=FDA%2C%20CDC%2C%20and%20state%20and,extremely%20high%20levels%20of%20lead>.

CDC Lead and Chromium Poisoning Outbreak Linked to Cinnamon Applesauce Pouches: <https://www.cdc.gov/nceh/lead/news/lead-poisoning-outbreak-linked-to-cinnamon-applesauce-pouches.html>

CDC information on health effect of lead exposure: <https://www.cdc.gov/nceh/lead/prevention/health-effects.htm>

Washington State Lead Prevention page: <https://doh.wa.gov/community-and-environment/contaminants/lead>

For more information on chromium (ATSDR): <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=61&toxid=17>

Information for clinicians can be found on the COCA Now web page, Update on High Blood Lead Levels in Children Consuming Recalled Cinnamon Applesauce Pouches and Potential Chromium Exposure. <https://emergency.cdc.gov/newsletters/coca/2024/010524.html>