

## Multistate Outbreak of Multiple Salmonella Serotype Infections Linked to Sprouted Chia Seed Powder – United States, 2014

**Author:** Robert Harvey  
**Date:** Wednesday, April 22, 2015  
**Time:** 10:35 am/et  
**Location:** Ravinia Ballroom

**Summary:** More doubts about sprouts. Disease detectives traced a 16-state outbreak of Salmonella infections to a superfood: sprouted chia powder.

### **Abstract:**

**Background:** Salmonella causes 1.2 million infections and 380 deaths annually in the United States. On 5/6/2014, PulseNet, the national molecular subtyping network for foodborne disease surveillance, identified a cluster of Salmonella Newport infections with the same novel outbreak strain. US states, FDA, Canada, and CDC investigated to identify the source and prevent additional illnesses.

**Methods:** We defined a case as infection with an outbreak strain with onset 1/1/2014–7/22/2014. We conducted open-ended interviews to identify common exposures in the week prior to onset, administered supplemental questionnaires to refine hypotheses, collected products for testing, and performed traceback investigations.

**Results:** We identified 31 case-patients in 16 states; 22% (5/23) were hospitalized. Ninety percent (19/21) of case-patients reported consuming chia seeds or powder; 79% (15/19) of those specifically reported consuming chia seed powder of variable brand names. Traceback identified a Canadian firm as the common supplier for the sprouted chia seed powder. Multiple products containing sprouted chia seed powder from this firm were recalled and FDA denied admission of these products into the US until testing could confirm the products were no longer contaminated. During the investigation, testing of chia-containing products yielded two more Salmonella strains (Hartford and Oranienburg) that also caused illnesses; these were included in the outbreak.

**Conclusions:** Epidemiologic, traceback, and laboratory evidence identified sprouted chia seed powder processed at a single firm as the outbreak source. Although sprouted chia seeds are a novel Salmonella outbreak vehicle, this investigation highlights the well-documented risks for foodborne illness associated with the sprouting process. Firms choosing to produce sprouted seed products should follow available guidance to reduce the risk of bacterial contamination.