



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People.™

Multistate outbreak of hepatitis A virus infections linked to pomegranate seeds from Turkey

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CDC is collaborating with public health officials in several states and the US Food and Drug Administration (FDA) to investigate a multistate outbreak of hepatitis A virus infections. Results from the ongoing investigation are highlighted below.

At a Glance:

- **Cases exposed to 'Townsend Farms Organic Anti-oxidant Blend':** [145 \(/hepatitis/Outbreaks/2013/A1b-03-31/epi.html\)](/hepatitis/Outbreaks/2013/A1b-03-31/epi.html)
- **States:** [8 \(/hepatitis/Outbreaks/2013/A1b-03-31/map.html\)](/hepatitis/Outbreaks/2013/A1b-03-31/map.html) *
- **Deaths:** 0
- **Hospitalizations:** 63
- **Recall:** [Yes \(advice-consumers.html\)](advice-consumers.html)

*The cases reported from Wisconsin resulted from exposure to the product in California

Vaccine and IG Information:

- [Hepatitis A Vaccine Schedule \(/hepatitis/HAV/HAVfaq.htm#B3\)](/hepatitis/HAV/HAVfaq.htm#B3)
- [Postexposure Prophylaxis - Use of vaccine and IG \(/hepatitis/HAV/HAVfaq.htm#D1\)](/hepatitis/HAV/HAVfaq.htm#D1)
- [Source for IG \(/hepatitis/IG-HBIG_Sources.htm\)](/hepatitis/IG-HBIG_Sources.htm)

More Information:

- [Advice to Consumers & Retailers \(advice-consumers.html\)](advice-consumers.html) (</salmonella/montevidео-tahini-05-13/signs-symptoms.html>)
- [Hepatitis A Information \(/hepatitis/A/index.htm\)](/hepatitis/A/index.htm)
- [Key Resources \(key-resources.html\)](key-resources.html)

Latest Case Count Map

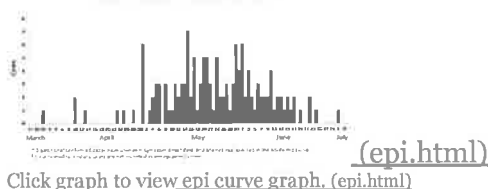


[\(map.html\)](map.html)

[Click map to view case count map. \(map.html\)](map.html)

Latest Epi Curve

Hepatitis A Virus Infection Associated with Consumption of
Frozen Berry and Pomegranate Mix:
Epidemic Curve by Date of Symptom Onset as of 7/11/2013
■ 140 Confirmed Cases With Known Symptom Onset



Highlights

[Read the Advice to Consumers » \(advice-consumers.html\)](#)

Epidemiologic Investigation:

- As of July 11, 2013, 145 people have been confirmed to have become ill from hepatitis A after eating 'Townsend Farms Organic Antioxidant Blend' in 8 states: Arizona (21), California (70), Colorado (28), Hawaii (8), New Mexico (7), Nevada (6), Utah (3), and Wisconsin (2). [Note: The cases reported from Wisconsin resulted from exposure to the product in California.]
 - 81 (56%) ill people are women
 - Ages range from 1 – 84 years;
 - 83 (57%) of those ill were between 40 – 64 years of age.
 - 10 children age 18 or under were also ill. None were previously vaccinated.
 - Illness onset dates range from 3/31/2013 – 7/1/2013
 - 63 (43%) ill people (all over 18 years of age) have been hospitalized, and no deaths have been reported
 - All ill people who reported eating this product purchased it from Costco markets; however, the product was also sold at Harris Teeter stores. No ill people have been identified that bought the product at Harris Teeter at this time.
 - CDC continues to track hepatitis A cases in all states and test specimens in order to determine if any other cases are related to this outbreak.

Laboratory Investigation:

- The outbreak strain of hepatitis A virus, belonging to genotype 1B, was found in clinical specimens of 56 people in seven states: AZ (6), CA (15), CO (22), HI (4), NM (4), NV (4) and WI (1; the person was exposed in California). This genotype is rarely seen in the Americas but circulates in North Africa and the Middle East.
- This genotype was identified in a 2013 outbreak of hepatitis A virus infections in Europe linked to frozen berries and a 2012 outbreak in British Columbia related to a frozen berry blend with pomegranate seeds from Egypt. However, there is no evidence at this time that these outbreaks are related to the ongoing U. S. outbreak.

Regulatory Investigation:

- By combining information gained from FDA's traceback and traceforward investigations and the CDC's epidemiological investigation, FDA and CDC have determined that the most likely vehicle for the hepatitis A virus appears to be a common shipment of pomegranate seeds from a company in Turkey, Goknur Foodstuffs Import Export Trading.
 - FDA will detain shipments of pomegranate seeds from Goknur when they are offered for import into the United States.
 - These pomegranate seeds were used by Townsend Farms to make the Townsend Farms and Harris Teeter Organic Antioxidant Blends and by Scenic Fruit Company to make the Woodstock Frozen Organic Pomegranate Kernels.

- FDA will be working with the firms that have distributed pomegranate seeds from this shipment from Turkey to help ensure that all recipients of these seeds are notified.
- On June 4, 2013, Townsend Farms, Inc. of Fairview, Oregon voluntarily recalled certain lots of its frozen Organic Antioxidant Blend (<http://www.fda.gov/Safety/Recalls/ucm355166.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) because of potential hepatitis A virus contamination.
 - On June 28, 2013, Townsend Farms, Inc. of Fairview, Oregon, expanded its voluntary limited lot recall of frozen Organic Antioxidant Blend, 3 lb (<http://www.fda.gov/Safety/Recalls/ucm359140.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) . because of potential hepatitis A virus contamination.
- On June 26, 2013, Scenic Fruit Company of Gresham, Oregon recalled specific lots of Woodstock Frozen Organic Pomegranate Kernels (<http://www.fda.gov/Safety/Recalls/ucm358740.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) because of potential hepatitis A virus contamination.
- Additional information regarding these recalls is updated regularly at: FDA Investigates Multistate Outbreak of Hepatitis A Illnesses Associated with Pomegranate seeds from Turkish Importer (<http://www.fda.gov/Food/RecallsOutbreaksEmergencies/Outbreaks/ucm354698.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) .
- Consumers should not eat recalled products containing pomegranate seeds. The recalled products should be discarded.

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Content source: Division of Viral Hepatitis and

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