

Q&A: What's listeria and how is it traced to ice cream?

April 23 2015, byMary Clare Jalonick



A woman walks by the Blue Bell Creameries on Tuesday, April 21, 2015, in Brenham, Texas. A massive recall has brought more attention and put more pressure on a century-old Texas ice cream company that has been searching to discover how its products became linked to a deadly string of listeria cases. (Brett Coomer/Houston Chronicle via AP)

New technologies account for one way that the government is tracking a life-threatening outbreak of listeria linked to Blue Bell ice cream

products.

Texas-based Blue Bell Creameries recalled all its products this week after listeria was found in a variety of the company's frozen treats. The massive recall followed several smaller recalls as health officials across the country rapidly worked to track the outbreak, which is linked so far to 10 listeria illnesses in four states, including three deaths.

The investigation has been helped by technology called whole genome sequencing, which maps all an organism's DNA. While the sequencing has been a staple of medical research, it has only recently been used regularly to track listeria outbreaks. With help from that technique, federal and state officials realized the outbreak was not just a recent event—the [ice cream](#) had likely made people sick since 2010.

Questions consumers may have about the outbreak and how it's tracked:

—

WHAT IS LISTERIA?

Listeria is a hardy bacteria found in soil and water that can be tracked into a plant or carried by animals. It can be very difficult to get rid of once it contaminates a processing facility, partly because it grows well in refrigeration. It is commonly found in processed meats, unpasteurized cheeses and unpasteurized milk, and it is sometimes found in other foods as well—listeria in cantaloupes was linked to 30 deaths in a 2011 outbreak.

—

WHAT HAS BEEN RECALLED?

As of Monday, Blue Bell ice cream has recalled all of its products. That follows more limited recalls of Blue Bell products made on production lines in Texas and Oklahoma after the ice cream was linked to deaths and illnesses in Kansas and Texas. The company issued Monday's recall after two samples of chocolate chip cookie dough ice cream tested positive for listeria.

HOW DID THEY LINK THE ILLNESSES TO THE ICE CREAM?

The first indication of listeria contamination in Blue Bell products came in January, when the South Carolina Department of Health and Environmental Control collected samples from a Blue Bell distribution plant as part of a random sampling program. The South Carolina officials had no reason to suspect the ice cream was contaminated, but they found that two of Blue Bell's products contained high amounts of listeria. South Carolina notified the Food and Drug Administration, which began an investigation that led to Monday's massive recall.

WHAT ELSE DID THEY FIND?

Testing in Texas and Kansas found more contaminated samples that could be linked to illnesses in those states. The CDC also found past cases of listeria illnesses that could be linked to the Blue Bell products using whole genome sequencing.

WHAT IS WHOLE GENOME SEQUENCING?

Whole genome sequencing maps all an organism's DNA, instead of just part of it, as other tests do. Dr. Robert Tauxe of the CDC says it has enabled health officials to get better results when trying to link a person's listeria illness to a particular food. Government investigators take stool or blood samples from patients and use the tests to link them to strains of the pathogen—listeria in this case—found in the food.

Tauxe says the whole [genome sequencing](#) gives officials hope that future outbreaks can be tracked faster and more accurately.

WHAT ARE SYMPTOMS OF LISTERIA?

When a person contracts the disease, it can cause fever, muscle aches, gastrointestinal symptoms and even death.

AM I AT RISK?

Listeria generally only affects the elderly, people with compromised immune systems and pregnant women. It can cause miscarriage, stillbirth and premature labor for women and serious illness or death in newborn babies. Healthy, younger adults and most children can consume [listeria](#) with no ill effects or only mild illness.

HOW DID THIS HAPPEN?

State and federal inspectors are still investigating the outbreak and have not released a cause. In past outbreaks, contamination has been the result

of dirty equipment or unsanitary conditions in a plant.

Blue Bell says it is expanding its cleaning and sanitization system, beefing up its employee training, expanding its swabbing system by 800 percent to include more surfaces and sending daily samples to a microbiology laboratory for testing. The 108-year-old company said it will also test all products produced at its facilities before sending them to retailers.

© 2015 The Associated Press. All rights reserved.

Citation: Q&A: What's listeria and how is it traced to ice cream? (2015, April 23) retrieved 21 May 2024 from <https://medicalxpress.com/news/2015-04-qa-listeria-ice-cream.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.