

Bacteria breakdown: Understanding E. coli

Organic carrots, ground beef and slivered onions on McDonald's Quarter Pounders® were all linked to E. coli outbreaks this fall.

[According to the Centers for Disease Control and Prevention \(CDC\)](#), at least 104 people got sick and 34 people were hospitalized after eating Quarter Pounders from the fast-food chain in October. One person died in Colorado, and four others developed life-threatening kidney disease.

In November, the U.S. Food & Drug Administration (FDA) and CDC [announced](#) Grimmway Farms started a voluntary recall of multiple sizes and brands of organic whole and baby carrots. In the same week, the U.S. Department of Agriculture (USDA) [alerted the public](#) of an E. coli outbreak linked to ground beef products made by Wolverine Packing Co., based in Detroit, Michigan. Around 167,000 pounds of ground beef products were recalled.

What is E. coli?

Escherichia coli, commonly known as E. coli, is a bacterium with multiple strains. Humans' microbiome can contain E. coli, specifically in our guts with stool. These are different than the strains that cause food-borne illness.

Eating affected foods can lead to serious gastrointestinal illnesses, such as diarrhea, fever, nausea, vomiting, abdominal pain and kidney disease if the case is severe. Symptoms can start anywhere from a few days to up to nine days later, according to the FDA. Doug Kasper, MD, an infectious disease specialist with OSF HealthCare, adds that a bout with E. coli is more than just a usual stomachache.

"Upset stomach, more than typical like you ate too much or have heartburn after a meal," Dr. Kasper says. "The particular concern would be an acute onset of diarrhea, stool that has blood in it and crampy abdominal pain that persists for more than 24 hours."

What causes an outbreak?

There's not a simple answer to where an E. coli outbreak starts, Dr. Kasper says. It could be in the original production facility or in transit, as a lot of food is transported across the United States.

"When you have these outbreaks, it usually comes down to one variable that has change," Dr. Kasper says. "Maybe it has to do with a weather outbreak or a change in (a weather) pattern in that area that led to something different in how it was harvested."

Food safety practices around the holidays

"For the person at home, as we head into holiday season, you want to remember safe food practices. Whether it's with raw meat or raw eggs, you want to wash all those surfaces after you've cooked with them. Wash with soap and water and scrub the surfaces. You want to cook all necessary products to their recommended temperatures," Dr. Kasper says.

And there's no need to break out the disinfectants like ultraviolet light or bleach to clean the surfaces. Cleaning and scrubbing the area with soap and water should suffice.

If you went to the grocery store and picked up raw vegetables or fruits, Dr. Kasper says to make sure you wash them in water before eating them as well. If you have a product at home that's been a part of a recall, Dr. Kasper says to not "cook your way through a recall." Just toss the product out. Sometimes the manufacturer or store will offer a refund for impacted items.

There's some reassurance

"I look at it more that you have a complex industry, bringing foods across the country that get sourced from different places. As long as there is a constant process to audit this and address issues as they occur, that is the most reassuring part of getting these things to cease as fast as possible," Dr. Kasper says.

While it can be very concerning to consumers when seeing these recalls, Dr. Kasper says it's reassuring that the USDA, FDA and CDC investigate when the contamination occurs, gets the products removed from the shelves and then notify and update the public throughout a recall.

If you're experiencing symptoms like intense stomach pain or diarrhea, potentially with blood in the stool, Dr. Kasper recommends contacting your medical provider immediately. If your symptoms are somewhat mild, OSF PromptCare or OSF OnCall Urgent Care are also available. If symptoms are really severe, you may want to consider a trip to the emergency department.