



BY LAUREN TARSHIS





AS YOU READ, THINK ABOUT:

This article is about a terrible outbreak of food poisoning that swept the United States. As you read, think about what causes food poisoning and the effect it has on people and their communities.

hristopher Meunier, 7, was one of those kids who never got sick. That is, until November 2008, when he came down with a nasty stomach bug. His doctor was sure that Christopher would recover quickly. But he didn't get better.

He got worse—a lot worse.

The day after Thanksgiving, Christopher's fever spiked to 103 degrees. He began vomiting black sludge. His diarrhea was full of blood. "It hurts so bad I want to die!" he screamed.

Christopher's parents rushed him to Vermont Children's Hospital, where doctors scrambled to try to help. "He had blood and mucus pouring out of his body," his mom, Gabrielle, recalls.

Nobody knew what was wrong. Was it a terrible form of flu? A rare disease? For three days, Christopher's illness showed no sign of **dissipating**. His doctors were **mystified** as to what was wrong. Then, finally, the answer came. Laboratory tests showed that Christopher had food poisoning. His digestive system was infected with salmonella, a **pathogen** that grows on unclean food.

Roughly 2,500 types of salmonella exist. Every year, salmonella sickens an estimated 1.4 million people. Most get well in a few days, but some, like Christopher, become gravely ill. In the U.S., more than 400 people per year die from salmonella poisoning.

As doctors struggled to save Christopher's life, they had no idea that people all over the country were being infected with the same type of salmonella. Something deadly was lurking on America's supermarket shelves and nobody had any idea where it was coming from.

Killer Bacteria

Food poisoning has been a problem for humans since our Ice Age ancestors were frying up woollymammoth chops and sloth nuggets for dinner. During the Revolutionary War, hundreds of



TONELLA

lives in the intestinal tracts of humans and animals. It is often transmitted by eating food contaminated with feces. (Yes, ew.)

CHRISTOPHER

MEUNIER was infected with a life-threatening strain of salmonella in 2008. One in six Americans gets food poisoning every year. Who will be next?

poisoning. It wasn't until January 1993, however, that America learned how truly dangerous food poisoning

can be. That was when dozens of children were rushed to Seattle emergency rooms with severe stomach and kidney problems. Within a week, scientists had traced the outbreak to a surprising source: hamburgers from Jack-in-the-Box. They were contaminated with the bacteria *E. coli*, which can be even more toxic than salmonella. About 700 people, mainly kids, became seriously ill during the Jack-in-the-Box outbreak. Four died.

The episode transformed the fast-food business. Today, all fastfood hamburgers must be cooked to at least 160 degrees, which kills *E. coli.* Jack-in-the-Box, whose leaders were horrified by the tragedy, now has one of the best

THE HEROE

food-safety systems in the country.

The U.S. government also took notice, tightening laws and setting up a system for tracking outbreaks. In fact, for two weeks before Christopher got sick, scientists had been tracing the outbreak. They knew a dangerous salmonella **strain** was spreading, but they had no idea what was causing it.

Team Diarrhea

Salmonella is a bacteria that grows on feces. It can contaminate hundreds of types of food anything from chicken to ice cream. Just last year, salmonella in sprouts, papayas, and turkey caused outbreaks across the U.S.

You might be wondering how poop can end up in your food. The germ is actually very easy to spread. On a farm, for instance, a rainstorm could wash cow manure

"TEAM D"

works for the Minnesota Department of Public Health. They investigate 30 to 40 outbreaks of food poisoning every year!

OP: COURTESY OF THE MEUNIER FAMILY; BOTTOM: MINNESOTA DEPARTMENT OF HEALTH

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THE SURVIVOR

soldiers died after eating spoiled food. Ben Franklin was once sick for weeks from eating a hunk of rotten cheese. Back then, if someone got sick after drinking a glass of milk, it was easy to figure out where that milk came from the family cow or maybe the farm down the road.

Today, however, finding the source of food poisoning can be dizzyingly difficult. Your dinner last night probably contained ingredients from all over the world. Spinach from Mexico. Hamburger meat from California. Tomato sauce from Italy. And some of your favorite foods—from energy bars to cream-filled donuts—are packed with ingredients that each originate in a different place. If you think you have food poisoning, it can be tough to find the cause.

Even though the U.S. has some of the safest food in the world, experts have worried for decades about a major outbreak of food through a field, contaminating the vegetables growing there. Or a chef with unwashed hands might spread germs to your food.

During the 2008 salmonella outbreak, scientists didn't have enough information to track down the source. The weeks ticked by, and more people got sick. In Vermont, Christopher's mom, Gabrielle, grew increasingly frustrated. She was interviewed by government health agencies. She told each one everything she could remember about what her son had eaten in the days before his illness, but so much time had passed, it was hard to remember. One official hinted that there was some kind of outbreak, but he couldn't tell her anything concrete.

No one, it seemed, had answers.

What Gabrielle didn't know was that 1,000 miles away, in Minnesota, an elite group of young scientists was on the case. The outbreak had spread to their state. These men and women, who proudly call themselves "Team Diarrhea," were determined to solve the mystery.

Like a group of Sherlock Holmeses with test tubes and computers, Team D fanned out across the state, searching for clues. They interviewed victims and their families, asking, "What have you eaten? Where did you eat it? Where have you traveled?" The team worked late into the night, brainstorming theories and sharing laboratory test results of suspect foods.

Soon they had an important

THE VILLAIN

STEWART PARNELL owned the (now bankrupt) Peanut Corporation of America. He allegedly knew his peanuts were contaminated but told his employees to sell them anyway.

clue. Using a process called **DNA** fingerprinting, the lab determined that the poisonings were caused by the same type of salmonella. This meant that the victims had probably been infected by the same ingredient.

But what was it?

Finally, Team D made a major breakthrough. Thirty victims had been at one of three places. Two were nursing homes. One was an elementary school. All three served the same brand of peanut butter: King Nut.

A scientist found an open jar of King Nut at one of the nursing homes. It tested positive for salmonella. But there were still questions. Since the jar was already open, it was possible that a worker at the nursing home had contaminated it. Also, King Nut is sold in only seven states. Like many of the sick people, Christopher had never been near a jar of King Nut.

So, what did King Nut have to do with his illness?

Thousands of Foods

The clues were adding up. Soon, the trail led to the tiny town of Blakely, Georgia, home of a processing plant owned by the Peanut Corporation of America (PCA). This is where King Nut peanut butter was made. At the plant, investigators found salmonella in peanut samples. They also found toxic mold, unclean working conditions, dead

insects near food, and leaks in the roof.

They were horrified to learn that this one little plant supplied peanut butter and peanut paste to hundreds of companies in the U.S. and Canada. Over the next two months, more than 4,000 foods were removed from store shelves. It was the biggest food recall in U.S. history. The list seemed endless: cookies, brownies, donuts, salad dressings, cereals, pet treats, TV dinners. Americans were urged to clear their kitchens of peanuts.

Each week, it seemed, more products were put on the danger list. One of those products was Keebler peanut butter crackers the same crackers Christopher had eaten the day before he got sick.

By the time the **epidemic**

JEFFREY ALMER

testifies for Congress, clutching a photo of his mother, who died after eating contaminated peanut butter. Eight others were killed in the outbreak. major food-safety legislation since the 1930s. It completely overhauls the system that protects us from dangerous food. Factories and farms must be inspected more frequently. Foods must be labeled

> so that consumers can know exactly where ingredients come from. Government agencies

must make it easier to alert people about contaminations, and doctors must share information more efficiently.

Experts say this law could save lives. Unfortunately, it has been slow to take effect, partly because of funding shortages. In the meantime, more outbreaks have occurred. Just last fall, the U.S. saw its deadliest yet, when 29 people were killed by listeria in tainted cantaloupe.

As for Christopher?

Now 10, he still has a weakened immune system, but he is living life to the fullest. He enjoys school and playing sports. He doesn't worry too much about what he eats either. "I've moved on," he says. But he won't be snacking on peanut butter crackers anytime soon.

ended, nearly 19,000 Americans had been sickened by peanuts processed at that one factory. Nine people died.

Christopher was lucky. After six days in the hospital, he returned home. But it took months before he fully recovered. He suffered from **debilitating** joint pain called reactive arthritis, a side effect of salmonella poisoning.

Christopher's story didn't end there, though. Soon after the outbreak, Christopher's mom became a fierce **advocate** for stronger food-safety laws. She traveled to Washington, D.C., to testify before Congress about what had happened to her son. She pointed out that emergency rooms were not prepared to diagnose and treat food-borne illnesses. She talked about her frustration with agencies that didn't share information or coordinate their efforts.

THE VICTIM

Thanks to her testimony and the hard work of other victims and health, lawmakers took action. Last January, Congress passed the Food Safety Modernization Act, the first

CONTEST



What Would You Do? Imagine there has been an outbreak of food poisoning at your school. YOU are in charge of handling the situation. What would you do to find the cause of the illness and prevent further outbreaks? Write a paragraph explaining what you would do. Use examples from the article to support your plan. Send your paragraph to **OUTBREAK CONTEST.** Five winners will get *The Omnivore's Dilemma: Young Readers Edition* by Michael Pollan. See page 2 for details.

ACTIVITY ONLINE

LITERATURE CONNECTION

IS THAT BEEF -OR RAT MEAT?

At the turn of the 20th century, eating dinner meant risking your life.

Poisoned pickles. Beef with fly eggs. Dungcovered pork. Sounds tasty, right? One hundred years ago, many foods sold in stores were filthy. Some producers even lied about what was really in their products. A slab of butter, for instance, might be laced with toxic coal tar dye!

In 1906, a journalist named Upton Sinclair helped to change all that. In his novel *The Jungle*, he detailed the nasty truth about meatpacking

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plants in Chicago. *The Jungle* outraged America. President



Theodore Roosevelt was so grossed out that he actually spit out his breakfast. That same year, thanks to Sinclair, Congress passed the Pure Food and Drug Act, which later led to the creation of the Food and Drug Administration. Today, the FDA still works to help keep our food safe.

Here is an excerpt from *The Jungle*. Don't read it during breakfast!

"The meat would be shoveled into carts, and the man who did the shoveling would not trouble to lift out a rat even when he saw one-there were things that went into the sausage in comparison with which a poisoned rat was a tidbit. There was no place for the men to wash their hands before they ate their dinner, so they made a practice of washing them in the water that was to be ladled into the sausage. The butt-ends of smoked meat, and the scraps of corned beef. and all the waste of the plants would be dumped into old barrels in the cellar and left there . . . [I]n the barrels would be dirt and rust and old nails and stale water-and it would be dumped into the hoppers with fresh meat, and sent out to the public's breakfast."