You can’t see them, smell them or taste them. And for the most part, Escherichia coli (E. coli) bacteria are harmless. They live in the guts of warm-blooded mammals, including humans.

But one strain – E. coli 0157:H7 – packs a mean punch. It releases a strong toxin that can make people very sick. So when this bacteria was found in some beef products on September 4, the Public Health Agency of Canada and the Canadian Food Inspection Agency (CFIA) were on the case!

Finding the Source

Canadian food inspectors first detected E. coli 0157:H7 during routine testing. They traced the tainted beef back to Canada’s second-largest meat processing plant, XL Foods of Brooks, Alberta. That same day, U.S. officials notified the CFIA that they had also found the bacteria in a meat shipment from XL Foods.

The CFIA quickly launched an investigation. At the Brooks facility, investigators found leaky pipes, clogged water nozzles, and smelly drains. They also discovered that the plant did not have good measures in place for monitoring high levels of E. coli. So, they ordered the company to correct these problems, and to sanitize the plant.

The XL Foods Recall

XL Foods supplies 35 percent of the beef Canadians eat. The meat is processed at three facilities in Alberta and sold across Canada under different brands.

The plant in Brooks, Alberta normally slaughters about 4,000 cattle per day. In all, over 1,800 different products from this facility were recalled in September and October. Still, 16 Canadians from four provinces became ill after eating infected meat.

Officials didn’t issue a recall of beef processed at the facility, though. Why? Because they didn’t think any contaminated

**Definitions**

**Canadian Food Inspection Agency (CFIA):** the federal government agency in charge of safeguarding food in Canada

**Public Health Agency of Canada:** the federal government agency responsible for public health, emergency preparedness, and disease control and prevention

**Recall:** an occasion when a company asks people to return a product because there is something wrong with it

**Sanitize:** to make something clean and healthy

**Toxin:** a poisonous substance that causes disease
meat had made its way onto store shelves.

**THE CRISIS WIDENS**
After more testing, however, officials realized they had been mistaken: some tainted beef products *had* been distributed for sale. On September 13, the U.S. shut its border to products from the plant. And on September 16, the CFIA issued the first recall of beef linked to XL Foods.

On September 27, the CFIA found that XL Foods had not fully met officials’ orders to correct the problem. As a result, the agency temporarily shut the plant down. Then, about two weeks later, XL Foods laid off its 2,000 employees, creating hardship and uncertainty in the small town.

**E. COLI SYMPTOMS**
Outbreaks of *E. coli* 017:H7 are not unusual. Health authorities in Canada deal with a few thousand illnesses a year.

Symptoms can show up within hours – or they may take up to ten days to appear. Severe cramps are common. So are diarrhea and vomiting. Some people have no symptoms, but can still pass the disease on.

In most cases, people recover after a week. However, some – usually the very young and the elderly – can become severely ill, and even die.

**FROM A COW TO YOU**
The bacteria is most often found in meat, especially ground beef. How does it get there? Sometimes via manure stuck to animals’ hides. Manure can contain *E. coli*, so if cow dung gets onto processing machines, the bacteria can infect the meat. *E. coli* can also be spread to beef if an animal’s intestines are nicked during the butchering process.

The bacteria can be found on food plants that grow close to the ground, too, if the soil they grow in is fertilized with cattle manure that hasn’t been properly composted. That’s what happened in 2006, when five Americans died and over 200 became sick after eating contaminated spinach.

*E. coli* can be found in *unpasteurized* milk or apple juice as well. It can get into drinking water from sewage or animal waste, too.

**TAKING THE BLAME**
The CFIA finally cleared XL Foods to open its Brooks plant on October 23. Officials said the facility appeared to have corrected its bad practices. It had also made a deal with JBS USA, a large Brazilian company with a good record, to run the plant. But just to be on the safe side, the agency had also placed more inspectors in the plant.

For its part, XL Foods apologized for the outbreak and promised to work hard to regain people’s trust.

“Our goal is to make sure it never happens again,” said co-owner Brian Nilsson.

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**DEFINITIONS**

UNPASTEURIZED: not sufficiently sterilized, leaving harmful bacteria behind