Food poisoning: From bad to worse

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WASHINGTON—Over the last five years, Sarah Pierce has suffered repeated kidney failure, spent three years on dialysis and had the plasma in her blood replaced twice—all because of something she ate.

Pierce, 30, was infected with a toxic strain of bacteria, *E. coli* O157:H7, that can be spread through undercooked meat or raw produce. Today, she has a healthy kidney donated by her brother, a full-time job and a husband. Pierce belongs to a small subset of people who develop long-term health problems from food poisoning. Over the last decade, as medical experts have sought the source of chronic illnesses, they have increasingly found links to episodes of food poisoning, according to the Centers for Disease Control and Prevention.

*Campylobacter*, a bacterium associated with raw chicken, is now recognized as a leading cause of the sudden acute paralysis known as Guillain-Barré syndrome. Certain strains of salmonella, the bacterium involved in the recent outbreak in Mexican raw jalapeno and serrano peppers, can cause arthritis. And *E. coli* O157:H7, a strain of an otherwise harmless bacterium that lives in animal intestines, can release toxins that cause hemolytic uremic syndrome, or HUS, a kidney disorder that in 25 percent to 50 percent of cases leads to kidney failure, high blood pressure and other problems as much as 10 years later.

This list is just the beginning of the many health problems some are now attributing to food-borne infections.

"What the classical medical literature says and what we've seen is not the same," said Donna Rosenbaum, executive director of Safe Tables Our Priority (STOP), a non-profit group that represents people who have suffered serious food-borne illness (safetables.org).

The CDC estimates there are 76 million cases of food-borne disease in the United States annually. The vast majority of people experience it only as an unpleasant bout of diarrhea or abdominal pain, though an estimated 5,000 to 9,000 Americans die each year from food poisoning. A few pathogens are responsible for more than 90 percent of those fatalities: salmonella, listeria, *Toxoplasma*, noroviruses, *Campylobacter* and *E. coli*. Those most susceptible to infection are small children, the elderly and people with compromised immune systems.

Until recently, doctors were focused on the acute phase of food-borne infections, but since the 1990s,
there has been "a more gradual recognition that some of the pathogens do have long-term [effects]," said Marguerite Neill, an infectious-disease specialist who teaches at Brown University. "We're already on the right track in terms of [saying] food-borne illness is more than diarrhea and may end up with long-term [illnesses]."

However, long-term health effects of food-borne infections are hard to study, for a variety of reasons. First, it is tough to prove a link between some of these illnesses and later chronic conditions such as arthritis. Second, despite annual outbreaks across the nation, the subject hasn't attracted much public attention or funding, Neill said. Also, federal health-care privacy laws make it difficult for researchers to approach anyone who is not in their direct care.

To get around the last of these problems, STOP is setting up a national registry of victims of food-borne disease who would be willing to participate in longitudinal studies.

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