

You Say Tomato, I Say "Did You Wash It?"

By ACSH Staff — August 4, 2004

"This was worse than labor" read the opening line of an Associated Press piece yesterday. What caused this mother of two such pain was not the repeated slamming of her fingers in a car door or an accidental fall on her tailbone. She was recalling her recent experience with the foodborne bacterial pathogen, salmonella. The source of the outbreak, which has afflicted over 300 individuals in five states, is not one of the usual suspects. It is thought to be [Roma tomatoes](#) [1].

Coronet Foods, supplier of the suspected tomatoes, has said that tests turned up no contamination at its processing plant, but they suspended purchasing and processing of the suspect tomatoes.

Salmonellosis, a commonplace intestinal infection in chicken, cattle, and other farm animals, is no joke. In humans, infection is marked by symptoms that include severe abdominal cramping, diarrhea, and vomiting, usually with fever. These symptoms generally occur six to seventy-two hours after ingestion and can last a week or more. While no deaths have thus far been associated with the current outbreak, the disease can sometimes be fatal, primarily in immuno-compromised persons, and infants.

This and other high-profile cases involving fresh produce indicate a widespread assumption that salmonella is confined to the realm of undercooked meat and eggs, underscoring the need for further education on food safety and handling.

According to the FDA, fruits and vegetables become contaminated with salmonella through tainted soil, or by handling during harvesting, processing, or shipping. Contrary to the predominantly accurate AP piece, however, thorough washing *can*, indeed, [remove the pathogens](#) [2]. This is good news given that produce is often consumed raw, which leaves any pathogens intact and thriving.

In general, salmonellosis can be easily prevented, provided that diligence and consistency in food handling practices are followed. Infections typically result from a combination of improper washing, poor kitchen hygiene which can result in cross-contamination to other foods and inadequate cooking. Therefore, it is vital that food handlers frequently wash their hands, food prep surfaces, and utensils. They must take great care to cook food thoroughly and to refrigerate when appropriate in order to prevent bacterial growth that can occur at room temperature. Produce can be rubbed vigorously under running water. It is equally important to wash one's hands after using the bathroom in the event that one is an unknowing carrier of the bacteria. Children should be assisted in this process.

Food irradiation by gamma rays or electron beams is another highly effective and safe means by which salmonella and other foodborne pathogens [can be destroyed](#) [3]. However, this technology is

not a panacea. While it may eradicate pathogens resulting from contamination by soil, manure, or direct transference from infected animals, it cannot protect against cross-contamination from improper washing of hands and surfaces.

UPDATE:

In response to the sickening of five people who ate ground beef contaminated with a disease-causing strain of E. coli, Carneco Foods of Columbus, Nebraska, has voluntarily [recalled](#) [4] 497,000 pounds of meat nationwide. The recall was labeled Class 1 by the U.S. Department of Agriculture, a designation that indicates a potentially serious health threat. All five victims, including a child, have recovered from their illness. E. coli O157:H7, a bacteria, can, however, cause fatal disease. Typical symptoms are diarrhea and dehydration. It is most dangerous if consumed by individuals with weak or compromised immune systems, such as children, the elderly, or people with HIV. Like salmonella, E.coli represents one of the many foodborne pathogens that could be safely and efficiently dealt with via food irradiation. While regular irradiation (see my earlier [article](#) [5]) of ground meat would also reduce the chance of cross-contamination in food preparation areas to other food products, it is not a substitute for good sanitation habits and thorough cooking. Health officials say that ground beef should always be cooked to 106 degrees Fahrenheit.

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For more information on food safety, see:

Eating Safely: Avoiding Foodborne Illness (second edition)

http://www.acsh.org/publications/pubID.317/pub_detail.asp [2]

Irradiated Foods

http://www.acsh.org/publications/pubID.198/pub_detail.asp [3]

<http://www.fightbac.org> [6]

<http://vm.cfsan.fda.gov/~mow/foodborn.html> [7]

<http://www.foodsafety.gov/> [8]

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Links

[1]

<http://cnn.netscape.cnn.com/ns/news/story.jsp?id=2004080212310001388092&dt=20040802123100&w=AP>

[2] http://www.acsh.org/publications/pubID.317/pub_detail.asp

[3] http://www.acsh.org/publications/pubID.198/pub_detail.asp

[4] http://www.fsis.usda.gov/News_&_Events/Recall_030_2004_Release/index.asp

[5] http://www.acsh.org/factsfears/newsID.416/news_detail.asp

[6] <http://www.fightbac.org/>

[7] <http://vm.cfsan.fda.gov/~mow/foodborn.html>

[8] <http://www.foodsafety.gov/>