

Food Safety Hazard: Shigella



Characteristics/description

The bacterial genus *Shigella* contains four species (*S. dysenteriae*, *S. flexneri*, *S. boydii* and *S. sonnei*), is a diarrheal disease and is endemic in many temperate and tropical countries.

Source

Shigella are spread by direct contact with fecal material from an infected person or by eating contaminated food or drinking contaminated water. Hands unwashed after toilet use, diaper changing, caring for an infected person or handling contaminated surfaces may transfer the organisms. Produce from fields with human sewage may be contaminated, and flies hatching in contaminated feces may carry the organisms to food. Humans and a few primates are the only reservoirs of *Shigella*. Food can be contaminated with *Shigella* at all stages of production and preparation: during the growing period, at markets, during preparation at home or in restaurants and when prepared food is kept without refrigeration.

Effects on humans

Shigellosis is a diarrheal disease occurring 1-2 days after exposure that is characterized by the frequent passage of small liquid stools that contain visible blood, with or without mucus. Epidemics may occur since the infection is so contagious. Only a few organisms may cause illness. Symptoms usually resolve in 5-7 days. Antibiotics may be useful in severe cases, but *Shigella* are often resistant to antibiotics. Supportive measures may be sufficient for mild cases (rehydration, feeding and electrolyte supplementation).

Risk reduction strategies

- The key to prevention is minimizing fecal-oral contact through effective hand washing with soap, keeping food and water free of contamination, safe handling and processing of food, and control of flies.

Key links

World Health Organization (WHO): "Guidelines for the Control of Shigellosis, Including Epidemics Due to *Shigella* Dysenteriae Type I":

<http://apps.who.int/iris/bitstream/10665/43252/1/924159330X.pdf>

Centers for Disease Control and Prevention *Shigella*–Shigellosis page:

<http://www.cdc.gov/shigella/index.html>

Food and Agriculture Organization: Assurance of Seafood Quality:

<http://www.fao.org/docrep/003/t1768e/T1768E00.htm#TOC>