

Fact Sheet on *Salmonella*

What is *Salmonella*?

Salmonella are rod-shaped, flagellated, Gram stain-negative bacteria, and are known to be a major cause of foodborne illness throughout the world. *Salmonella* bacteria are found naturally in the intestines of animals (especially poultry and swine), birds, reptiles, some pets and some humans. The bacteria can also be found in the environment.

Food can become contaminated with *Salmonella* during the slaughter and processing of an animal, when food is handled by a person infected with *Salmonella*, by cross-contamination from the environment or by unsanitary food handling practices. Foods most commonly responsible for *Salmonella* infection include raw and undercooked meat, in particular poultry; raw fruits and vegetables; raw or undercooked eggs; unpasteurized dairy products; pet treats; fish and shrimp; sauces and salad dressings; dried gelatine, peanut butter, cocoa and chocolate.

What are the symptoms of salmonellosis infection?

Approximately 6,000 to 12,000 cases of salmonellosis are reported in Canada each year. Young children, seniors and those with weakened immune systems are the most vulnerable.

The symptoms of *Salmonella* infection usually appear 12–72 hours after infection, and include fever, abdominal pain, diarrhoea, nausea and sometimes vomiting. The illness usually lasts 4–7 days, and most people recover without treatment. In young children, the elderly and people with weakened immune systems, salmonellosis may cause serious and sometimes deadly infections. Chronic symptoms such as arthritis can also occur.

In 2009, the Canadian Food Inspection Agency issued several recall notices for foods- such as peanut butter- contaminated with *Salmonella*. None of these recalls were for meat products.

What can consumers do to protect themselves?

Proper hygiene, safe food handling and preparation are key to the prevention of foodborne illness. Some advice to assist consumers in protecting themselves from foodborne illness:

- Contaminated foods may look and smell normal. Thoroughly cook foods to destroy the bacteria.
- Do not eat raw or undercooked eggs, poultry or meat.
- Poultry and meat, including hamburgers, should be well-cooked, not pink in the middle. If you are served undercooked food in a restaurant, send it back.

- Thoroughly wash fruits and vegetables before eating them.
- When buying and storing groceries, keep meats separate from fruits, vegetables, cooked foods and ready-to-eat foods.
- Because bacteria grow quickly at room temperature, go directly home from grocery shopping and refrigerate or freeze food immediately.
- Always defrost food in the refrigerator, in cold water or in the microwave, never at room temperature. Set your refrigerator to 4 degrees C (40 degrees F) and your freezer to -18 degrees C (0 F).
- Wash your hands before handling any food. Be sure to wash your hands, cutting boards, counters, knives and other utensils after preparing uncooked foods.
- If you have been diagnosed with salmonellosis, do not prepare food or pour water for anyone else until you are clear of the bacteria.

What is the Canadian meat industry doing to prevent *Salmonella* contamination?

The Canadian meat industry makes every effort to ensure that the meat products it produces are safe and free of all microbial contamination, including *Salmonella*. Federally registered establishments are under the inspection of the Canadian Food Inspection Agency, and must follow, among other Acts, Regulations and policies, the Meat Inspection Act and Regulations. Federally registered establishments must follow the internationally recognized HACCP (Hazard Analysis and Critical Control Point) system to control and/or eliminate hazards and prevent contamination of their products. Many use additional interventions such as antimicrobials as part of a multi-hurdle approach for the prevention of salmonella.

Many producers follow HACCP-based on-farm food safety programs to eliminate the risk of salmonella contamination. For several years the Canadian Meat Council has provided financial support for a *Salmonella* surveillance program in Quebec, led by the Université de Montréal. Recognizing the importance of reducing the bacteria load on hogs prior to arrival at the slaughter facility, the program identifies farms with elevated *Salmonella* contamination, identifies risk factors and looks for ways to eliminate contamination. The Université de Montréal plans to broaden the scope of the surveillance program to other provinces in Canada.

The Canadian Meat Council supports industry education on food safety through its educational symposia, and recognizes the importance of consumer education on food safety.

Helpful links:

Canadian Partnership for Consumer Food Safety Education: <http://www.canfightbac.org/>

Health Canada: <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/salmonella-eng.php>

Canadian Food Inspection Agency:

<http://www.inspection.gc.ca/english/fssa/concen/cause/salmonellae.shtml>

United States Centres for Disease Control and Prevention:

http://www.cdc.gov/nczved/dfbmd/disease_listing/salmonellosis_gi.html

United States Department of Agriculture:

http://www.fsis.usda.gov/factsheets/salmonella_questions_&_answers/index.asp