



SALMONELLA PREVENTION

The Issue

Salmonella are bacteria that cause intestinal illness (salmonellosis) in humans, usually because they have eaten contaminated food.

Background

Salmonella are a group of bacteria that normally live in the intestinal tracts of animals and birds. The bacteria are usually transmitted to people when they eat foods contaminated with animal feces. Contaminated foods are often of animal origin, such as beef, poultry, milk or eggs. But all foods, including fruits and vegetables, can become contaminated.

Approximately 6,000 to 12,000 cases of Salmonella are reported in Canada each year. Because many milder cases are not diagnosed or reported, or are believed to be the "stomach flu," the actual number of infections is estimated to be many times more. Young children, seniors and those with weakened immune systems from diseases such as AIDS, or as a result of some cancer treatments, are the most vulnerable. The disease is more common in summer than in winter.

Sources of Salmonella

Contaminated foods, such as raw meat, poultry and eggs that have not been cooked properly, are the most common source of the disease. Not washing fresh fruits and vegetables before eating them, as well as not thoroughly cleaning work surfaces used to prepare raw meat and other foods in the kitchen can also expose you to Salmonella. Food can also be contaminated by food handlers who do not thoroughly wash their hands with soap after handling raw meat or after using the bathroom.

Salmonella can be found in the feces of some pets, especially those with diarrhea. Exotic pets, such as snakes, turtles and reptiles, may carry Salmonella even when healthy. People can become infected if they do not wash their hands after contact.

Health Effects of Salmonella

Most people infected with Salmonella develop diarrhea, fever and abdominal cramps 12 to 72 hours after being infected. The illness usually lasts four to seven days and most people recover without treatment. As with any disease causing diarrhea or vomiting, those infected should drink plenty of liquids to replace lost body fluids. This is particularly important with very young children and seniors. In severe cases, patients may need to be given fluids intravenously, which is usually done in hospital.

In a small number of cases, Salmonella may spread from the intestines to the blood stream and other body sites, causing severe illness and, in vulnerable people, death. In cases of severe illness, patients may be treated with antibiotics. However, some Salmonella bacteria have become resistant to many commonly used antibiotics.

A small number of infected people go on to develop pains in their joints, irritation of the eyes and painful urination, a condition called Reiter's Syndrome. It can last for months or years, sometimes leading to chronic arthritis, which is difficult to treat.

Because many different illnesses cause the same symptoms as Salmonella, the only way to diagnose it is through laboratory tests on the stools of infected people. Once Salmonella has been identified, further testing can determine the type of Salmonella and the appropriate antibiotics to use in treatment.

The Government of Canada's Role

Health Canada sets policies and standards to ensure the safety and nutritional quality of all food sold in Canada. The Canadian Food Inspection Agency (CFIA) enforces the policies and standards and together with Health Canada helps to ensure that foodborne illness is detected early. The two organizations work together to ensure that all necessary warnings go out to the public quickly and that appropriate action is taken. When asked for help by a province, Health Canada will provide on-site expert assistance to help provincial health authorities identify the source of a Salmonella outbreak.

As a founding member of the Canadian Partnership for Consumer Food Safety Education, Health Canada also participates in public awareness campaigns about safe food practices. One example is Fight BAC™, a program that encourages Canadian consumers to think of food safety at every step of the food handling process, from shopping to preparing and re-heating foods.

Minimizing Your Risk

There is no vaccine to prevent salmonellosis, but you can minimize your chances of contracting it by following these steps.

- Contaminated foods may look and smell normal. Thoroughly cook foods to destroy the bacteria.
- Do not eat raw or undercooked eggs, poultry or meat. Remember raw eggs are contained in foods such as homemade hollandaise sauce, caesar and other salad dressings, tiramisu, homemade ice cream, homemade mayonnaise, cookie dough and frostings.

- 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.
- Avoid raw or unpasteurized milk and other dairy products. Mother's milk is the safest food for infants. Breast feeding prevents salmonellosis and many other health problems.
- 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.
- Wash your hands after contact with animal feces, for example, after changing the kitty litter or scooping up after your dog.
- Since reptiles can have Salmonella, always wash your hands after handling them. Reptiles, including turtles, are not appropriate pets for children and should not be in the same house as an infant.

- If you are diagnosed with salmonellosis, be sure that you or your doctor informs the local Public Health Department. If many cases occur at the same time, it may mean that a restaurant or a particular food item has a problem that needs to be corrected.

Need More Info?

- For more Fight BAC™ tips, visit:
<http://www.canfightbac.org/english/indexe.shtml>
- For more information about Health Canada's Food Program, visit:
<http://www.hc-sc.gc.ca/food-aliment>
- For more about foodborne illnesses, visit Health Canada Population and Public Health Web site at:
<http://www.hc-sc.gc.ca/pphb-dgspsp/>
- For more info on Canadian food issues/recalls, visit the Canadian Food Inspection Agency at:
<http://www.inspection.gc.ca>