

Public Health Notice – Outbreak of *Salmonella* illnesses linked to raw turkey and raw chicken

February 21, 2020 - Final Update

This is the final update for this outbreak investigation. The Public Health Agency of Canada collaborated with provincial and territorial public health partners, the Canadian Food Inspection Agency and Health Canada to investigate an outbreak of *Salmonella* infections linked to raw turkey and raw chicken products. The investigation has been closed, however illnesses could still be reported because this *Salmonella* strain is present in some raw turkey and raw chicken products in the Canadian marketplace.

The Public Health Agency of Canada continues to remind Canadians to always handle raw turkey and raw chicken carefully, and to cook it thoroughly to prevent food-related illnesses like *Salmonella*. The Public Health Agency of Canada is not advising that consumers avoid eating properly cooked turkey or chicken products, nor is it advising retailers to stop selling raw turkey and raw chicken products.

Why should you take note

The Public Health Agency of Canada collaborated with provincial and territorial public health partners, the Canadian Food Inspection Agency and Health Canada to investigate an outbreak of *Salmonella* infections.

Based on the investigation findings, exposure to raw turkey and raw chicken products was identified as the likely source of the outbreak. Many of the individuals who became sick reported eating different types of turkey and chicken products before their illnesses occurred. A single common supplier of turkey and chicken products was not identified through the investigation. The Canadian Food Inspection Agency did not issue any food recall warnings related to this outbreak. The Public Health Agency of Canada and the Canadian Food Inspection Agency shared investigative findings with representatives from the turkey and chicken industries.

The investigation has been closed, however illnesses could still be reported because this Salmonella strain is present in some raw turkey and raw chicken products in the Canadian marketplace. The Public Health Agency of Canada will continue to monitor reports of illnesses and will provide updates in the future if there is an increase in newly reported cases or new investigation information is identified.

Salmonella bacteria are commonly found in raw or undercooked poultry like turkey or chicken. The bacteria are most-often transmitted to people when they improperly handle, eat or cook contaminated foods.

This outbreak is a reminder of the importance of using safe food handling practices if you are preparing, cooking, cleaning or storing raw turkey and raw chicken products. These raw products can have bacteria that can easily be spread around food preparation areas and can make you sick if safe food-handling practices are not properly followed.

Canadians across the country are reminded to always handle raw turkey and raw chicken carefully, and to cook it

thoroughly to prevent food-related illnesses

like *Salmonella*. The Public Health Agency of Canada is not advising that consumers avoid eating properly cooked turkey or chicken products, nor is it advising retailers to stop selling raw turkey and raw chicken products.

Investigation summary

In total, there were 130 confirmed cases of *Salmonella* Reading illness investigated in the following provinces and territories: British Columbia (33), Alberta (44), Saskatchewan (8), Manitoba (25), Ontario (9), Quebec (2), New Brunswick (1), Prince Edward Island (1), Northwest Territories (1), and Nunavut (6). Individuals were sick between April 2017 and January 2020. Thirty-nine individuals were hospitalized. One individual died. Individuals who became ill were between 0 and 96 years of age. The majority of cases (52%) are male.

The collaborative outbreak investigation was initiated due to an increase of *Salmonella* Reading illnesses that occurred in October and November 2018. Through the use of a laboratory method called whole genome sequencing, some *Salmonella* illnesses dating back to 2017 were identified to have the same genetic strain as the illnesses that occurred in late 2018. The majority of illnesses that were investigated occurred between October 2018 and January 2020.

The United States Centers for Disease Control and Prevention ([U.S. CDC](https://www.cdc.gov)) previously investigated similar *Salmonella* illnesses in several states that were linked to raw turkey exposure. There were some turkey products recalled in the U.S. that were associated with that outbreak. These products were not imported

or distributed in the Canadian marketplace. The U.S. investigation was closed in April 2019.

Who is most at risk

Anyone can become sick with a *Salmonella* infection, but infants, children, seniors and those with weakened immune systems are at higher risk of serious illness because their immune systems are more fragile.

Most people who become ill from a *Salmonella* infection will recover fully after a few days. It is possible for some people to be infected with the bacteria and to not get sick or show any symptoms, but to still be able to spread the infection to others.

What should you do to protect your health

Raw turkey and raw chicken products carrying *Salmonella* may look, smell and taste normal, so it's important to always follow safe food-handling tips if you are buying, chilling, thawing, cleaning, cooking and storing any type of raw poultry food products.

The Public Health Agency of Canada is reminding Canadians to always handle raw turkey and raw chicken carefully, and to cook it thoroughly to prevent food-related illnesses like *Salmonella*. You can use the following food safety tips to help protect you and your family:

- Always wash your hands before and after you touch raw turkey and raw chicken. Wash with soap and warm water for at least 20 seconds. Use an alcohol-based hand rub if soap and water are not available.

- Always cook turkey and chicken products to a safe internal temperature that has been checked using a digital thermometer.
- Turkey and chicken breasts, as well as ground poultry, including turkey and chicken burgers, should always be cooked to an internal temperature of 74°C (165°F) to kill any harmful bacteria. Whole turkey and chicken should be cooked to an internal temperature of 82°C (180°F).
- Leftovers should be reheated to 74°C (165°F). Use a digital food thermometer to check, and place it in the thickest part of the food.
- Thaw frozen raw turkey and raw chicken in the fridge. Thawing raw turkey and raw chicken at room temperature can allow bacteria to grow.
- Never rinse raw turkey or raw chicken before cooking it because the bacteria can spread wherever the water splashes.
- Use a separate plate, cutting board, utensils and kitchen tools when preparing raw turkey and raw chicken.
- Clean everything that has come in contact with raw turkey or raw chicken with a kitchen cleaner or bleach solution and then rinse with water.
 - Kitchen cleaner (follow the instructions on the container)
 - Bleach solution (5 mL household bleach to 750 mL of water)
- Keep raw turkey and raw chicken away from other food while shopping, storing, repackaging, cooking and serving foods.
- If you have been diagnosed with a *Salmonella* infection or any other gastrointestinal illness, do not cook food for other people.
- Do not feed raw ground turkey or raw ground chicken to your pets. Bacteria like *Salmonella* in raw pet food can make your

pets sick. Your family also can get sick by handling the raw food or by taking care of your pet.

- For more information, read our [poultry safety fact sheet](#).

Symptoms

Symptoms of a [Salmonella infection](#), called salmonellosis, typically start 6 to 72 hours after exposure to *Salmonella* bacteria from an infected animal or contaminated product.

Symptoms include:

- fever
- chills
- diarrhea
- abdominal cramps
- headache
- nausea
- vomiting

These symptoms usually last for four to seven days. In healthy people, salmonellosis often clears up without treatment. In some cases, severe illness and hospitalization may occur. In some cases, antibiotics may be required. People who are infected with *Salmonella* bacteria can be infectious from several days to several weeks. People who experience symptoms, or who have underlying medical conditions, should contact their health care provider if they suspect they have a *Salmonella* infection.

What is the Government of Canada doing

The Government of Canada is committed to food safety. The Public Health Agency of Canada leads the human health investigation into an outbreak and is in regular contact with its federal, provincial and territorial partners to monitor the situation and to collaborate on steps to address an outbreak.

Health Canada provides food-related health risk assessments to determine whether the presence of a certain substance or microorganism poses a health risk to consumers.

The Canadian Food Inspection Agency conducts food safety investigations into the possible food source of an outbreak.

The Government of Canada will continue to update Canadians if new information related to these investigations becomes available.

Epidemiological information

Figure 1 is an epidemiological curve for this outbreak. Outbreak investigators use this information to show when illnesses begin, when they peak, and when they trail off. It can take several weeks from the time a person becomes ill to when the illness is reported and testing confirms a link to the outbreak. Data are available for 130 cases.

Figure 1: Number of people infected with Salmonella Reading

