



Food-borne Illness: *E. coli*

What is food-borne illness?

- Food-borne illness or “food poisoning” occurs when you consume food contaminated with disease-causing bacteria, viruses or parasites.
- People may not report incidence of food-borne illness because their symptoms may be flu-like, i.e., stomach cramps, nausea, vomiting, diarrhea and fever.

What is *E. coli*?

- *Escherichia coli*, usually called *E. coli*, refers to a large group of bacteria that is commonly found in the intestines of humans and animals.
- Most strains of *E. coli* are harmless; however, some strains, such as *E. coli* O157: H7, can make people sick, causing severe stomach cramps, diarrhea and vomiting. Serious complications of an *E. coli* O157:H7 infection can include kidney failure and death.

Where could I come in contact with *E. coli*?

- *E. coli* infections are generally caused by eating contaminated food, drinking contaminated water, or coming into direct contact with someone who is sick or with animals that carry the bacteria.
- Infections can be caused direct contact with animals at petting zoos or farms or by the consumption of:
 - improperly cooked beef;
 - raw fruits and uncooked vegetables, including sprouts;
 - untreated drinking water;
 - unpasteurized (raw) milk and (raw) milk products, including raw milk cheese; and
 - unpasteurized apple juice/cider.
- Meat can become contaminated with *E. coli* when animals are slaughtered or processed. *E. coli* bacteria from the intestinal tract of infected animals may contaminate meat surfaces during slaughter and/or processing.
- Food can also be contaminated when it is handled by a person infected with *E. coli*, or from cross-contamination because of unsanitary food handling practices.
- Raw fruits and vegetables can become contaminated with *E. coli* while in the field by improperly composted manure, contaminated water, wildlife or poor hygiene by farm workers.
- *E. coli* infections can also spread easily from person to person, e.g. hand to mouth transmission.
- Proper hygiene and safe food handling and preparation practices are key to preventing the spread of *E. coli*.

What is current *E. coli* outbreak situation in Saskatchewan?

- Ministry of Health and Regional Health Authority officials are investigating a higher than normal number of cases of *E. coli* that occurred in Saskatchewan in September.
- The Ministry of Health will advise the public if we experience any cases linked with recalled meat products from the Alberta XL Foods Inc. plant.

- Canadian Food Inspection Agency (CFIA) is leading the investigation to determine the source of contamination of the beef products and is recalling products as necessary. Refer to CFIA's website for more details on recalled beef products:
<http://www.inspection.gc.ca/food/consumer-centre/food-safety-investigations/xl-foods/eng/1347937722467/1347937818275>.

What is the human health risk of *E. coli*?

- Infections can occur among people of all ages, however symptoms are likely to be more severe among the very young and the elderly.
- Pregnant women and people with weakened immune systems are also at high risk of developing serious complications.

What are the symptoms of *E. coli*?

- Like other foodborne illnesses, the symptoms of *E. coli* infection mainly involve the intestinal tract.
- It usually takes 3 to 4 days (but ranges from 1-10 days) for symptoms to develop. Symptoms may vary from person to person; however, they often include
 - severe stomach cramps;
 - diarrhea (often watery and may develop into bloody);
 - vomiting; and
 - little to no fever (usually less than 38.5°C/101°F).
- Generally the above symptoms resolve on their own in 7 to 10 days.
- About 15 per cent of young children and the elderly develop hemolytic uremic syndrome (HUS), which can be fatal. Symptoms of HUS vary. Some people have seizures or strokes and some need blood transfusions and kidney dialysis.
- Most people will recover from HUS within a few weeks, while others may suffer permanent kidney and other organ damage and complications or die.

What if I think I've been sick with *E. coli*?

- If any of the above symptoms persist, contact your health care provider for treatment.
- If you think you are infected with *E. coli* bacteria or any other foodborne illness, do not prepare food for other people. You should also not go in to work if you prepare food for the public (e.g., caterer or food handler in a restaurant) or if you work as a health care or child care provider. Consult with your local health region for recommendations on when it is safe to return to work.

What is the treatment for *E. coli*?

- Generally, the disease must run its course.
- Individuals infected with *E. coli* should drink plenty of liquids to replace the body fluids lost through diarrhea and vomiting, and to avoid dehydration.
- Antibiotics are not recommended in the treatment of *E. coli*.

How can I protect myself and my family from this type of food-borne illness?

- Proper hygiene and safe food handling and preparation practices are key to preventing the spread of all foodborne illnesses, including *E. coli*.
- Hand washing is one of the best ways to prevent the spread of foodborne illness.
- Contaminated foods may look and smell normal. It is important to ensure that you thoroughly cook foods to destroy bacteria.
- Do not consume foods past their 'Best Before' dates.
- Do not consume recalled foods.

What is being done to ensure that the food that I have bought is safe?

- Food safety is a shared responsibility between federal government and the provincial Ministries of Agriculture and Health.
- For current information on food recalls, visit www.inspection.gc.ca or call 1-800-442-2342.

What should I do if I have purchased food that has been recalled?

- Food that has been recalled should be returned to the location of purchase, or disposed of in a manner to ensure that it cannot be consumed by others.
- If you have questions about the products you have purchased, contact the retail location from which you purchased it.

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References

Public Health Agency of Canada:

<http://www.phac-aspc.gc.ca/fs-sa/fs-fi/ecoli-eng.php>

<http://www.phac-aspc.gc.ca/fs-sa/phn-asp/ecoli-1012-eng.php>

Canadian Food Inspection Agency:

<http://www.inspection.gc.ca/food/consumer-centre/food-safety-tips/food-poisoning/e-coli/eng/1332539377584/1332539833416>

<http://www.inspection.gc.ca/food/consumer-centre/food-safety-investigations/xl-foods/eng/1347937722467/1347937818275>

HealthLine Online:

<https://www.healthwise.net/saskhealthlineonline/Content/StdDocument.aspx?DOCHWID=hw133795>