

# 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 know they have food-borne illness because their symptoms may be flu-like, i.e. stomach cramps, nausea, vomiting, diarrhea and fever.

## What is E. coli?

- *E. coli* (*Escherichia coli*), refers to a large group of bacteria that is commonly found in the intestines of humans, animals and poultry.
- 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.

## How do people 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 by direct contact with animals at petting zoos or farms or by the consumption of:
  - improperly cooked beef;
  - contaminated raw fruits and uncooked vegetables, including sprouts;
  - untreated drinking water;
  - unpasteurized (raw) milk and (raw) milk products, including raw milk cheese;
  - 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 due to 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 the human health risk of E. coli?

- Infections can occur among people of all ages but 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?

- Like other food-borne illnesses, the symptoms of *E. coli* infection mainly involve the stomach.
- It usually takes 3 to 4 days for symptoms to develop (but could range from 1-10 days).
- 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 is the treatment for E. coli?

- Generally, the disease will run its course and resolve on its own.
- 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*.

### What if I think I'm 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 food-borne illness, do not prepare food for other people.
- If you think you are infected with E. coli, you should 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.

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

- Use proper hygiene and safe food handling and preparation practices to prevent the spread of all food-borne illnesses, including E. coli.
- Practice proper hand washing.
- Thoroughly cook foods to destroy bacteria, even if foods may look and smell normal.
- Keep pets away from food storage and preparation areas.
- 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?

- The Canadian Food Inspection Agency (CFIA) administers and enforces the Acts governing food safety and food inspection at facilities that are federally registered.
- CFIA coordinates recalls of food products from the market when the product is known to pose a health risk to the consumer.
- For information on current recalls, visit [www.inspection.gc.ca](http://www.inspection.gc.ca) or call 1-800-442-2342.