

A Little Bit of Care Goes a Long Way

Don Mercer
Associate Professor, Food Science
Kemptville Campus University of Guelph

I recall on two separate occasions receiving rather disturbing responses from students during conversations about potential contamination of food by *E. coli*. In one case, the student said, “I don’t need to worry, I’m a vegan.” In the second instance, the reply was, “We only eat organic foods, so it’s not a problem.” My jaw must have dropped a foot (or 30.48 centimetres to be metrically correct). After recovering my composure, we discussed the problems inherent in this type of approach and tried to put things into perspective.

Just for the record, I think organic foods are great. Also, our family enjoys various cuts of meat – all properly cooked or processed, of course. Like most people, we are concerned about food safety, and take precautions to avoid problems which might arise.

The Public Health Agency of Canada has some excellent advice about *E. coli* on their website (www.publichealth.gc.ca), as does the Organic Trade Association (www.ota.com).

It has been estimated that about eleven million people in Canada suffer from some food-related illness every year. This is one-third of our total population! Fortunately, most of these illnesses are minor in nature. The really sad thing is that many of these cases could probably be avoided.

Escherichia coli (i.e., *E. coli*) is a type of bacterium that is found in the intestinal tract of animals and humans. There are many strains of *E. coli* in the world around us. Although most of them are not a problem, the one which we must take precautions against is *E. coli* O157:H7. It’s the culprit responsible for making people sick. According to the Public Health Agency of Canada, infections from this particular strain can be attributed to consuming improperly cooked meat, or consuming raw fruits and vegetables that have become contaminated by the *E. coli* somewhere in the food chain from the producer to the consumer.

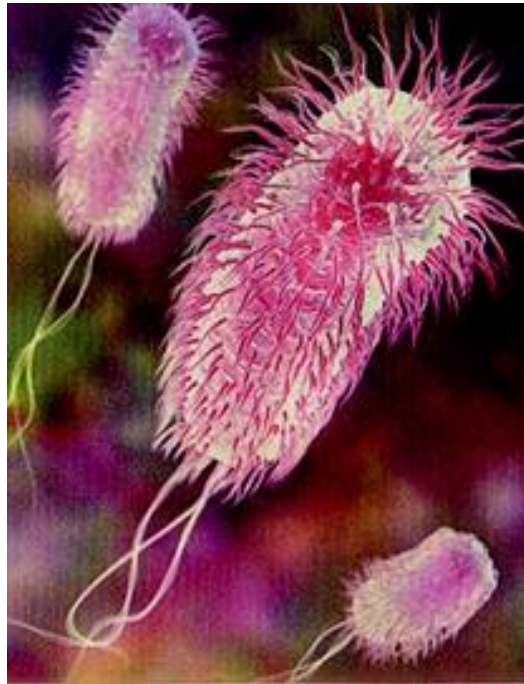
No matter how careful the producers are in following proper procedures in regard to composting the manure which is put on the fields, etc., there is always a risk that fruits and vegetables can become contaminated. Birds and animals can contaminate crops with their droppings, and there are numerous other potential opportunities for contamination, including unsanitary handling and processing practices right up until the time the food is consumed.

It is always best to protect yourself against the potential risks of eating contaminated foods. There is really no way to tell if *E. coli* or any other contaminating microorganisms are present simply by looking at the food or smelling it. First and foremost, raw or

unprocessed meats must be fully cooked to a safe internal temperature. The actual temperatures for various types of meat are presented in a table on the Public Health Service of Canada website under the heading of “Prevention”. Storage is also an important consideration since many microorganisms can grow if the temperature rises above 4°C.

For fruits and vegetables, the best advice is to wash them thoroughly before you eat them. All utensils and work surfaces should also be thoroughly cleaned. Above all, you need to wash your hands regularly and properly – with soap and water.

I really don't want to sound like a broken record that keeps repeating the same message over and over again. Nor do I want to sound like an alarmist. However, it is a bit upsetting to see stories popping up in the news about isolated cases or outbreaks of food-borne illnesses that could have been easily prevented by following a few basic steps.



E. coli: (Photo courtesy of Google Images)