



RISKS ASSOCIATED WITH SPROUTS

The Issue

Sprouts, including bean and alfalfa sprouts, have become a common food item in grocery stores and salad bars across Canada. As the popularity of sprouts increases, so does the potential for sprout-related illnesses. Health Canada is taking steps to reduce the risk of contracting sprout-related illnesses.

Background

Sprouts are the germinating form of seeds and beans. As many as 10 per cent of Canadians eat sprouts on a regular basis. Since small amounts of sprouts are now found in some sandwiches and salads bought at restaurants and delicatessens, this exposure has the potential to increase.

Sprouts and Foodborne Illnesses

Worldwide between 1995 to 2001, there have been 13 outbreaks of foodborne illnesses linked to sprouts. In most instances, the illnesses were caused by either *Escherichia coli* (*E. coli*) O157:H7 or *Salmonella* bacteria.

The largest outbreak took place in Japan in 1996, where 6,000 people got sick and 17 died after eating radish sprouts contaminated with *E. coli* O157:H7. Reported outbreaks caused by the same bacteria in Michigan and Virginia in 1997 were traced back to bean sprout seeds.

Raw alfalfa sprouts (either alone, or as part of a sprout mixture) contaminated with *Salmonella* have been linked to a number of outbreaks, including illnesses in British Columbia and Quebec in 1996, and in Ontario and Alberta in 1997.

How Sprouts Can Become Contaminated

Scientists believe that the source of contamination is the seeds that are used to grow sprouts. Seeds may become contaminated by animal manure in the field or during storage, and the conditions required to grow sprouts are ideal for the rapid growth of bacteria. Furthermore, sprouts are usually eaten raw, which means they are not exposed to temperatures high enough to kill bacteria that may be present.

The Risks of Eating Raw Sprouts

Anyone who eats raw sprouts is at risk for exposure to *E. coli* O157:H7 or *Salmonella* bacteria.

However, the risk of serious health effects is greater for young children, seniors, and people with weak immune systems.

The symptoms of *E. coli* O157:H7 infection can include stomach cramps, vomiting, fever, and bloody diarrhea. A small percentage of people can develop a seri-

ous condition called haemolytic uremic syndrome, and may need blood transfusions and kidney dialysis. Severe cases could cause permanent kidney damage or even death.

People infected with Salmonella bacteria may experience fever, stomach cramps and diarrhea. These symptoms usually occur one to two days after eating contaminated food, and can last for seven days. Severe cases may need hospital treatment, and could be fatal.

If you experience any of the symptoms of E. coli or Salmonella infection, you should contact your doctor immediately.

Reducing Risks

The Government of Canada's Role

Government scientists and regulators are working together with the sprout industry and consumer groups to improve the safety of sprouts. Some of the steps taken to date include:

- The development of a Code of Practice for the safe growing and distribution of sprouted seeds and beans. This Code emphasizes the use of Good Manufacturing Practices for sprouts.
- Research into methods of destroying disease-causing bacteria without affecting the seeds in other ways. Two methods under investigation are heat treatment, and chemical treatment using chlorine or other disinfectants.

- The regular inspection by the Canadian Food Inspection Agency (CFIA) of sprout growing establishments to ensure good hygienic practices.
- Continued work by Health Canada's Foods Directorate to finalize policy recommendations for a Risk Management Strategy on Pathogens (disease-causing agents) in Sprouted Seeds and Beans.

What You Can Do

If you belong to one of the high risk groups for foodborne illness – young children, seniors, or people with weak immune systems – you should not eat raw sprouts of any kind, especially alfalfa sprouts. Be sure to check for the presence of sprouts in salads and sandwiches you buy in restaurants and delicatessens.

If you are a healthy adult, you can minimize your risks by taking these precautions:

- Make sure the sprouts you buy are crisp and have buds attached. Avoid dark or musty- smelling sprouts
- Respect the best before date. By law this date must be on prepackaged sprouts
- Refrigerate the sprouts immediately after you get home
- You can also reduce the risk of illness significantly by cooking sprouts before you eat them

Need More Info?

The Code of Practice for sprouted seeds and beans is posted on the Canadian Food Inspection Agency Web site at:

<http://www.inspection.gc.ca/english/plaveg/fresh/spronte.shtml>

For more information about Health Canada's Food Program, see:

<http://www.hc-sc.gc.ca/food-aliment/>

For information on E. coli and Salmonella see:

[Link to IYH Illness from Hamburgers](#)

[Link to IYH Salmonella](#)