

## Fact Sheet on *Listeria monocytogenes*

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### **What is *Listeria monocytogenes*?**

*Listeria* is a bacterium that is commonly found in the environment, on our hands and in our refrigerators. Most people are routinely exposed to *Listeria* without any health problems. But one strain of *Listeria* – *Listeria monocytogenes* – is a virulent strain and can lead to the very serious disease, listeriosis, particularly among at-risk populations including pregnant women, newborns, the very old and people who are immune-compromised.

*L. monocytogenes* is found in soil, water and the digestive system of warm-blooded animals including humans and survives in the environment even in the cold and moist conditions found in refrigerators. *L. monocytogenes* can be found in unprocessed foods of animal origin like raw milk, meat, poultry and fish, but pasteurization and cooking destroys the organism. In some rare occasions, this environmental bacterium can recontaminate the product as it is being packaged, distributed or handled by the consumer. There is general scientific agreement that low levels of *L. monocytogenes* are not uncommon in the food supply and that such low levels are regularly consumed without apparent harm in healthy people.

### **What are the symptoms of listeriosis?**

Symptoms include: flu-like symptoms, nausea, vomiting, cramps, diarrhea, headache, constipation and persistent fever. Symptoms usually appear within 2 to 30 days and up to 70 days after consuming contaminated food.

A woman who develops listeriosis during the first three months of pregnancy may miscarry. If she develops listeriosis later in the pregnancy, her baby may be stillborn or acutely ill.

### **Government Inspection**

Our collective processing industry has worked in collaboration with the Canadian Food Inspection Agency (CFIA) to put in place scientifically robust, innovative and world recognized food safety and quality systems to the benefit of our valued customers and consumers at home and abroad.

Most importantly, as federal establishments, we are governed intensely by Canada's Meat Inspection Act and Regulations and the highly prescriptive and comprehensive CFIA Manual of Procedures. We are also inspected regularly, and randomly audited by highly professional and trained Veterinarians and Meat Inspectors. All of which is undertaken to ensure Canadian meat products remain among the highest in quality and safety in the world.

### **Industry efforts**

Canada's meat industry is the largest of our food processing sector with some 67,000 employees and gross sale of over \$ 20.5 billion. Meat processors are very aware of the vulnerability of the meat processing environment to *L. monocytogenes* and strongly adhere to current good manufacturing practices (GMPs), sanitation standard operating procedures

(SSOPs), and HACCP process controls. Work is continually taking place to reduce the incidence of all the food spoilage organisms and food pathogens including *Listeria monocytogenes* and to continuously ensure the security and wholesomeness of the Canadian meat supplies. Millions of dollars are invested annually in laboratory testing, plant sanitation, research and development and new equipment purchases.

Actions regularly taken by the meat industry are numerous and include:

- Training of plant and sanitation industry employees
- Purchasing of new processing equipment with new designs that make cleaning easier and more effective in reducing the possibility of bacteria being “harbored” in tiny spaces such as a hollow roller on a conveyer belt.
- Application of new environmental sampling programs that target *Listeria* in the plant environment so it can be destroyed before it is transferred to products.
- Adherence to strict process controls within the food processing establishment that continuously monitor critical control points to maintain food safety.
- The use of new Health Canada approved ingredients that inhibit the growth of *Listeria* on ready-to-eat meat and poultry.
- Strict adherence to maintaining the cold-chain during refrigerated transportation and retail display cases.
- Scientific validation of the heat treatment process under the strict supervision of CFIA authority for all food produced within a facility.

Despite the safeguards and improvements in processing technologies, post-processing contamination- even in the consumer’s home - remains a potential risk. The prevalence of *Listeria* in the environment makes proper food handling procedures and sanitation essential at any step of the food chain for protecting at-risk consumers from this pathogen.

### **How can consumers reduce their risk for listeriosis?**

Keep foods out of the temperature danger zone (between 4°C and 60°C or 40°F and 140°F). Keep the refrigerator at 4°C (40°F) or colder. Refrigerate food promptly. Thoroughly cook or boil foods such as hot dogs and poultry products until they are steaming hot.

Avoid raw, unpasteurized milk or foods made from it such as raw milk cheese. Purchase only as much product as will be consumed in 1 to 2 days. Wash raw vegetables thoroughly before eating. Wash hands before, during and after handling any type of food, especially raw meat and poultry.

Clean all utensils, cutting boards and work surfaces with a mild bleach solution (5 ml/1 tsp. bleach per 750 ml/3 cups water) before and after using. Separate utensils for raw and cooked foods.

Follow “use by” dates especially on packaged goods with a long shelf life and use immediately after opening.

The meat industry advises at-risk consumers, such as pregnant women and persons with weakened immune systems to thoroughly reheat to steaming hot ready-to-eat meat and poultry products, like hot dogs, before consuming.