

# Foodborne Risks *for* Moms-to-Be

## *Listeria monocytogenes*: A Hidden Threat to Moms-to-Be and Their Babies

### What is *Listeria monocytogenes*?

*Listeria monocytogenes* is a harmful bacterium that can be found in the following sources:

- Raw or undercooked animal foods such as unpasteurized milk, unpasteurized milk products (for example, soft and blue veined cheeses), meat, poultry, and seafood.
- Refrigerated, ready-to-eat foods such as hot dogs, deli meats, luncheon meats, poultry, and seafood
- Contaminated fresh fruits (e.g., cantaloupes) and vegetables
- Produce harvested from soil contaminated with *L. monocytogenes*.

Many animals can carry this bacterium without appearing ill, and thus, it can be found in foods made from animals. *L. monocytogenes* is unusual because it can grow at refrigerator temperatures, whereas most other foodborne bacteria do not. When eaten, it may cause listeriosis, an illness to which pregnant women and their unborn child are very susceptible.

### How can pregnant women get listeriosis?

Pregnant women can get listeriosis by eating foods, such as those listed above, that are contaminated with *L. monocytogenes*. Pregnant women can also get listeriosis by eating contaminated foods processed or packaged in unsanitary conditions or by eating fruits and vegetables that are contaminated from the soil or from manure used as fertilizer.

- FACT**
- Most *L. monocytogenes* infections occur during the third trimester of pregnancy. At this stage of pregnancy, the mother is more susceptible to listeriosis. However, *L. monocytogenes* infections that occur during the first trimester of pregnancy tend to have more severe fetal consequences.
  - The serious effects of listeriosis in pregnancy are often manifested by the fetus or newborn rather than the pregnant woman.

### How can listeriosis affect pregnant women?

The symptoms can take a few days or even weeks to appear and may include: fever, chills, muscle aches, diarrhea or upset stomach, headache, stiff neck, confusion, and loss of balance. If a pregnant woman experiences any of the above symptoms, she should see her doctor or healthcare provider immediately. In more serious cases, listeriosis could lead to the mother's death.

Most of the time, pregnant women who have listeriosis experience no symptoms and don't feel sick. Thus, they can pass the infection to their unborn babies without even knowing it. That's why *prevention* of listeriosis is very important.

### S • T • A • T • S

- *Pregnant women are about 10 times more likely than other healthy adults to get listeriosis.*
  - *It's estimated that about one in six (17%) of all **Listeria monocytogenes** cases occur in pregnant women.*
- Centers for Disease Control and Prevention

### How can listeriosis affect fetuses or newborns?

Although most *L. monocytogenes* infections occur during the third trimester of pregnancy, in the first trimester they can cause more severe consequences—including miscarriage. They can also lead to premature labor, delivery of a low-birth-weight infant, or infant death.

Fetuses who have a late infection may develop a wide range of health problems, including intellectual disability, paralysis, seizures, blindness, or impairments of the brain, heart, or kidney. In newborns, *L. monocytogenes* can cause blood infections and meningitis.

- FACT**
- *L. monocytogenes* is one of the most common causes of miscarriage resulting from infection of the fetus.

# How Pregnant Women Can Reduce the Risk of Listeriosis

## Time to Chill Fridge Tips

- Your refrigerator should register at 40° F (4° C) or below and the freezer at 0° F (-18° C). Place a refrigerator thermometer in the refrigerator, and check the temperature periodically. During the automatic defrost cycle, the temperature may temporarily register slightly higher than 40° F. This is okay.
- Refrigerate or freeze perishables, prepared food, and leftovers within 2 hours of eating or preparation. Follow the **2-Hour Rule**: Discard food that's left out at room temperature for longer than 2 hours. When temperatures are above 90° F (32° C), discard food after 1 hour.
- Use ready-to-eat, perishable foods, such as dairy, meat, poultry, seafood, and produce, as soon as possible. Remember, *Listeria monocytogenes* grows at refrigerator temperatures, so the longer a food is in the refrigerator the more bacteria it will contain.

## Fridge Tips

- Clean your refrigerator regularly.
- Wipe up spills immediately.
- Clean the inside walls and shelves with hot water and a mild liquid dishwashing detergent; then rinse.
- Once a week, check expiration and "use by" dates, and throw out foods if the date has passed. Follow the recommended storage times for foods. See the "Lifelong Food Safety" section of the website for the "Refrigerator & Freezer Storage" chart. Click on "Chill."

## To Eat or Not to Eat?



### Don't eat:

- Soft cheeses like Feta, Brie, Camembert, "blue-veined cheeses," or "queso blanco," "queso fresco," or Panela — *unless they're made with pasteurized milk*. Make sure the label says, "made with pasteurized milk."
- Hot dogs, deli meats, and luncheon meats — *unless they're reheated until steaming hot*.
- Refrigerated pâtés or meat spreads.
- Refrigerated smoked seafood — *unless it's in a cooked dish*, such as a casserole. (Refrigerated smoked seafood, such as salmon, trout, whitefish, cod, tuna, or mackerel, is most often labeled as "nova-style," "lox," "kippered," "smoked," or "jerky." These types of fish are found in the refrigerator section or sold at deli counters of grocery stores and delicatessens.)
- Unpasteurized (raw) milk or foods that contain it.



### It's okay to eat:

- Canned or shelf-stable (able to be stored unrefrigerated on the shelf) pâtés and meat spreads.
- Canned or shelf-stable, smoked seafood.
- *Pasteurized* milk or foods that contain it.
- Frozen foods prepared according to package directions.

## Listeriosis & Pregnant Hispanic Women

Studies show that Hispanic pregnant women may have a higher incidence of listeriosis than pregnant non-Hispanic women. This is most likely because they might make and eat homemade soft cheese and other traditional foods made from unpasteurized milk. "Queso fresco" — a traditional homemade cheese prepared from unpasteurized milk and widely consumed by Hispanics — has led to miscarriages, death of newborns, and premature delivery caused by *L. monocytogenes*.

To reduce the risk of listeriosis, Hispanic pregnant women should not eat homemade soft cheeses and other traditional foods made from unpasteurized milk. Like all other pregnant women, they should follow the food safety precautions above.

For more resources, see FDA's *Preventing Listeriosis in Pregnant Hispanic Women in the U.S.* Community Educator's Guide.



**NOTE** Pregnant women should see their doctor or healthcare provider if they have questions about listeriosis.