

Listeriosis

Reporting Obligations

Listeriosis is designated as a disease of public health significance and is reportable under the Ontario Health Protection and Promotion Act. Report all suspect and confirmed cases within **one business day** to the health unit. Sporadic cases of the diarrheal form of Listeriosis are not reportable.

REPORTING FORM

Epidemiology

Aetiologic Agent:

Listeriosis is an opportunistic infection caused by the agent *Listeria monocytogenes* (*L. monocytogenes*), a facultative anaerobic, non-spore-forming, motile, Gram-positive bacillus that produces a narrow zone of hemolysis on a blood agar medium.

The bacteria are found in soil, water, animals, and humans. Asymptomatic fecal carriage is common in humans. Bacteria can thrive and multiply at refrigeration temperatures.

Clinical Presentation:

A person with Listeriosis usually has fever, muscle aches, diarrhea, and sometimes, nausea and vomiting. The bacteria may infect the brain and the membrane lining the brain causing meningoenzephalitis. The onset of meningoenzephalitis may be sudden, with fever, intense headache, nausea, and vomiting. Complications include septicemia, endocarditis (the bacteria infects the membrane lining the cavities of the heart), and internal and external abscesses. Infected pregnant women may have minimal symptoms, characterized by a mild flu-like illness.

An infected pregnant woman may unknowingly pass on the illness to her unborn child *in utero*. Infection during pregnancy may lead to premature delivery, infection of the newborn that may lead to meningitis, spontaneous abortion, or stillbirth. Thirty percent of infant infections are fatal. If onset of illness occurs within the first four days of life, the case-fatality rate is 50%.

Note: Individuals may present with mild enteric symptoms, which could progress to more severe forms of disease.

Modes of transmission:

Main route of transmission is foodborne, through ingestion of contaminated food such as ready-to-eat meats (e.g., deli-meats), unpasteurized milk and soft cheeses, and vegetables. Vegetables can become contaminated from the soil or from manure used as fertilizer.

In-utero or perinatal transmission can occur. Inhalation of the organism has been reported and papular lesions on hands and arms may occur from direct contact with infectious material. Nosocomial transmission associated with contaminated equipment has resulted in a nursery outbreak.

Incubation Period:

Variable; cases have occurred 3 - 70 days following a single exposure to an implicated product. Estimated median incubation is 3 weeks.

Period of Communicability:

Infected persons can shed the bacteria in stool for several months; mothers of infected newborns may shed the infectious agent in vaginal discharges or urine for 7-10 days after delivery.

Risk Factors/Susceptibility

Those at highest risk are fetuses and neonates, the elderly, immunocompromised persons, and pregnant women. Healthy children and young adults are generally resistant; adults less so after age 40. Disease is frequently superimposed on other conditions such as cancer, organ transplantation, diabetes, and AIDS.

Diagnosis & Laboratory Testing

Listeriosis cannot be diagnosed clinically, given the many causative agents that may present with similar non-specific symptoms.

TESTING INFORMATION & REQUISITION

Treatment & Case Management

Treatment is under the direction of the individual's health care provider.

Instruct patient to keep suspect foods for laboratory analysis. Testing can be arranged through local health unit.

Public Health staff will investigate the case to determine the source of infection.

Patient Information

PATIENT FACT SHEET

References

1. [Ministry of Health, Infectious Diseases Protocol - Ontario Public Health Standards, 2022.](#)

Additional Resources

1. [PHAC, "Listeriosis \(Listeria\)."](#)
2. [PHO, "Listeriosis \(Listeria\)", Dec 2022.](#)
3. [SMDHU HealthSTATS: Listeriosis](#)