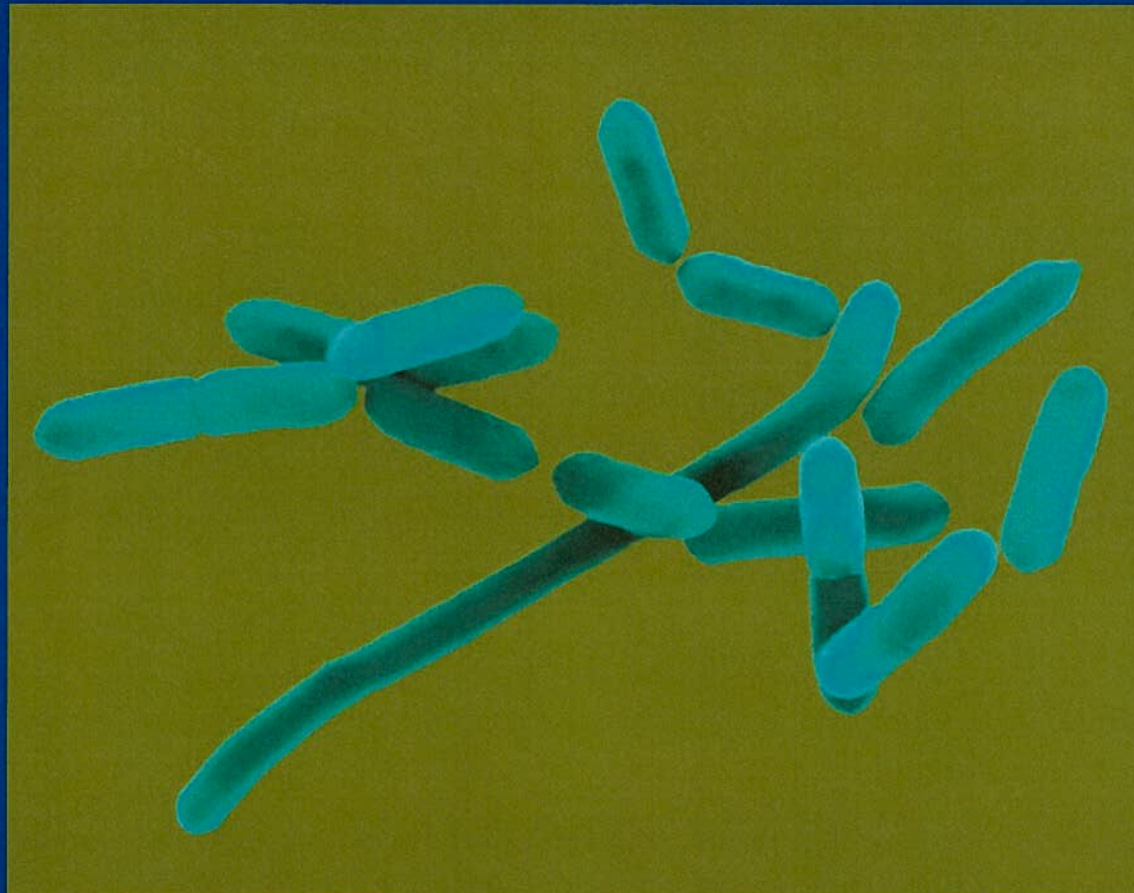


Listeria monocytogenes



Listeria monocytogenes

- causes the illness listeriosis
- uncommonly diagnosed infection that occurs worldwide
- an estimated 2,500 persons become seriously ill with listeriosis each year in the U.S.
 - approximately 500 of these cases are fatal
- pregnant women, newborns, and immunocompromised individuals are at greatest risk
 - healthy adults and children occasionally get infected but rarely become seriously ill

The Organism

- gram-positive
- rod-shaped
- non-spore forming
- motile
 - by means of flagella
- hardy
 - resistant to the harmful effects of temperature (freezing and heating) and desiccation

Reservoir / Sources

- soil and water
- forage, silage and mud
- infected domesticated and wild mammals and fowl
- infected humans
 - asymptomatic fecal carriage is common among humans (up to 10%)



Mode of Transmission

- ingestion of foods contaminated with the organism
- outbreaks and sporadic cases linked to:
 - milk
 - soft cheeses
 - vegetables
 - ready-to-eat meats (e.g. pâté)
- neonatal infections
 - organism can be transmitted from mother to fetus in utero or during passage through the infected birth canal

Signs and Symptoms

- healthy adults
 - acute mild febrile illness
 - gastrointestinal symptoms such as nausea, vomiting, and diarrhea
- immunocompromised adults and newborns
 - septicemia or meningoencephalitis
 - case-fatality rate in newborns is 30%
- pregnant women
 - fever
 - spontaneous abortion (2nd/3rd trimester) or stillbirth
- influenza-like symptoms including persistent fever and gastrointestinal symptoms may precede more serious manifestations of the disease

Incubation Period

- variable
- cases have occurred 3 – 70 days following exposure
- estimated median incubation period is 21 days

Diagnosis and Treatment

- diagnosis is confirmed after isolation of the organism from:
 - cerebrospinal fluid
 - blood or stool
 - amniotic fluid or placenta
 - other sites of infection
- antibiotics are the treatment of choice
 - must be started intravenously when diagnosis is suspected or confirmed
 - antibiotics given promptly to an infected pregnant woman can often prevent infection of the fetus or newborn

Prevention

- thoroughly cook raw meats such as beef, pork, and poultry
- keep raw meats separate from vegetables, cooked foods, and ready-to-eat foods
- wash raw vegetables thoroughly before consuming
- avoid unpasteurized milk or foods made from unpasteurized milk
- wash hands, knives, and cutting boards after handling uncooked foods
- consume perishable and ready-to-eat foods as soon as possible
- pregnant women and immunocompromised individuals should cook leftovers or foods such as hot dogs until steaming hot

