

Listeria Monocytogenes Disease

Listeria monocytogenes is a gram-positive bacilli that causes the infection listeriosis, which occurs primarily in newborns, the elderly and the immunocompromised. The main route of infection is through the ingestion of contaminated food products, especially soft cheeses. Individuals commonly have flu like symptoms, including fever and muscle aches, and gastrointestinal symptoms like nausea, vomiting and diarrhea. If the infection spreads to the central nervous system, it can cause meningitis. While there is a low incidence of listeriosis in humans, pregnant women are much more susceptible to disease. Infected pregnant women display mild flu and GI symptoms, but intrauterine or cervical infections can occur, resulting in spontaneous abortion, usually in the second to third trimester or stillbirth. Surviving neonates may suffer from granulomatosis infantiseptica, which are pyogenic granulomas distributed all over the body. *Listeria* is also the third most common cause of meningitis in newborns as the infants are exposed to the bacteria during transvaginal delivery. This organism characteristically causes a monocytic response in the CSF, which can help with diagnosis of the causative agent. Ampicillin is generally considered the antibiotic of choice.



PLAY PICMONIC

Signs and Symptoms

Soft Cheese

Plate of Cheese

The main route of infection is through the ingestion of contaminated food products, especially soft cheeses. Therefore, pregnant women are strongly advised from not eating soft cheeses like brie, feta, and queso blanco fresco.

Pregnant Women Have Flu-Like Symptoms

Ice-bag and Thermometer

Pregnant women typically have flu-like symptoms, including fever and muscle aches.

Pregnant Women Have GI Symptoms

Sitting on Toilet

Pregnant women also commonly have gastrointestinal symptoms, including diarrhea, nausea and vomiting.

Granulomatosis Infantiseptica

Granny-llama and a baby

Intrauterine or cervical infections can occur when pregnant women develop listeriosis. Neonates may suffer from granulomatosis infantiseptica, which are pyogenic granulomas distributed all over the body.

Spontaneous Abortion

Spartan Aborting-fetus

A spontaneous abortion is the spontaneous loss of a fetus before 20 weeks when the embryo or fetus is incapable of surviving independently. Intrauterine or cervical infections in pregnant women can result in spontaneous abortions, usually in the second to third trimester.

Meningitis

Men-in-tights

If *Listeria* infection spreads to the central nervous system, it can cause inflammation of the membranes covering the brain and spinal cord. Common symptoms include fever, headache and neck stiffness. *Listeria* is the third most common cause of meningitis in newborns as the infants are exposed to the bacteria during transvaginal delivery.

Monocytes in CSF

Monkey-monocyte

This organism characteristically causes a monocytic response in the CSF, which can help with diagnosis of the causative agent.

Treatment

Ampicillin

Amp-pencil

Ampicillin is generally considered the antibiotic of choice for *Listeria monocytogenes*.