CONDITION

Listeriosis

Listeriosis is a foodborne infection that can become serious during pregnancy or in people with weakened immunity.

WHAT IT IS
Infection caused by Listeria bacteria

BODY SYSTEM
Digestive and nervous systems; pregnancy can be affected

MAIN SYMPTOMS
Fever, muscle aches, nausea, diarrhea

WHAT CAUSES IT
Infection from contaminated food

HOW IT IS DIAGNOSED
Blood, spinal fluid, or pregnancy-related tissue cultures

MAIN TREATMENT
Antibiotics and supportive care

CAN IT BE CURED?
Yes - antibiotics can clear invasive infection

IS IT AN EMERGENCY?
Sometimes - confusion, stiff neck, seizures, or pregnancy fever

LONG-TERM OUTLOOK
Most recover, but invasive infection can cause lasting harm

Overview

Listeriosis is an infection caused by the bacterium Listeria monocytogenes . It is usually linked to contaminated food. The bacteria can survive and grow at refrigerator temperatures, although proper cooking kills them.

Many healthy people exposed to Listeria do not become ill. Others develop a short digestive illness with diarrhea and vomiting. A less common but more serious form, called invasive listeriosis, happens when the bacteria spread beyond the intestines into the blood, brain, or other parts of the body.

Invasive infection mainly affects pregnant people, newborn babies, adults aged 65 and older, and people with weakened immune systems. During pregnancy, the pregnant person may have only mild symptoms, but the infection can seriously affect the pregnancy or newborn.

Listeriosis does not spread easily between people in everyday contact. However, it can pass through the placenta during pregnancy or to a baby around the time of birth.

Symptoms

Symptoms depend on whether the infection remains in the intestines or spreads to other parts of the body.

Intestinal listeriosis can cause:

These symptoms often begin within about 24 hours of eating contaminated food and usually last a few days.

Invasive listeriosis usually causes fever and flu-like symptoms, such as fatigue and muscle aches. If the infection reaches the brain or the tissues around it, symptoms may include:

Invasive symptoms often begin within two weeks of exposure, but they can appear much later. This delay can make it difficult to identify the food involved.

During pregnancy, symptoms may be mild or absent. Possible symptoms include fever, fatigue, muscle aches, nausea, or diarrhea. Infection can sometimes lead to miscarriage, stillbirth, early labor, or serious infection in the newborn, even when the pregnant person does not feel very unwell.

Newborns with listeriosis may be unusually sleepy or irritable, feed poorly, vomit, have breathing problems, or develop a fever or low body temperature. Any concern that a newborn is unwell needs prompt medical assessment.

- Diarrhea
- Vomiting or nausea
- Fever
- Muscle aches
- Stomach pain
- Severe headache
- Stiff neck
- Confusion or unusual drowsiness
- Loss of balance
- Seizures

Causes and risk factors

Listeriosis happens when you swallow food contaminated with Listeria monocytogenes . Contamination can occur during food production, processing, storage, or preparation. Food may look, smell, and taste normal.

Foods linked to outbreaks have included deli meats, soft cheeses, unpasteurized milk, refrigerated smoked seafood, prepared salads, sprouts, ice cream, and some fruits and vegetables. The particular foods involved can change between outbreaks.

Anyone can develop listeriosis, but invasive infection is more likely in:

Pregnancy changes the immune system in ways that make invasive listeriosis more likely. The infection itself is not inherited, and having had it before does not mean you will pass a tendency toward it to your children.

- Pregnant people and their unborn or newborn babies
- Adults aged 65 and older
- People receiving chemotherapy or medicines that suppress immunity
- People who have had an organ transplant
- People with conditions that weaken immunity, including some cancers or HIV
- People with serious liver or kidney conditions

Diagnosis

Listeriosis cannot be confirmed from symptoms alone. Fever, diarrhea, headache, and muscle aches have many possible causes.

Invasive listeriosis is usually confirmed by growing Listeria from a sample in a laboratory. A clinician may take a blood sample. If meningitis is suspected, a lumbar puncture may be needed. This procedure collects a small amount of the fluid surrounding the brain and spinal cord.

During pregnancy or after delivery, testing may involve the placenta, amniotic fluid, or other pregnancy-related tissue when appropriate. A newborn may need blood or spinal fluid testing.

Routine stool cultures are not generally recommended to diagnose listeriosis. Many laboratories do not include Listeria in standard stool testing, and finding the bacteria in stool does not prove that it caused the symptoms.

People who ate a recalled food but remain well usually do not need testing. A healthcare

professional may recommend monitoring for symptoms instead, especially when the person is in a higher-risk group.

Treatment and management

Mild intestinal illness in an otherwise healthy adult often improves without specific treatment. Management may focus on rest and replacing fluids lost through diarrhea or vomiting.

Invasive listeriosis requires antibiotics like amoxicillin or doxycycline . Treatment is usually given through a vein, often in hospital. The antibiotic used and the length of treatment are chosen according to where the infection has spread, the person's health, pregnancy status, allergies, and laboratory results.

Pregnant people with fever and symptoms that could fit listeriosis should be assessed promptly, particularly after eating a recalled or potentially contaminated food. Treatment decisions are based on symptoms, exposure history, examination, and test results. Exposure without symptoms is managed differently and does not automatically mean antibiotics are needed.

Meningitis, bloodstream infection, or severe illness may require hospital monitoring and supportive care. This can include fluids, help with breathing, seizure treatment, or management of low blood pressure.

After treatment, follow-up depends on the part of the body affected. Someone who had uncomplicated bloodstream infection may need different follow-up from someone recovering from meningitis, pregnancy complications, or a newborn infection.

Complications

Most short intestinal infections clear without lasting effects. Invasive listeriosis can cause serious complications because the bacteria have moved into normally protected areas of the body.

Possible complications include:

Nervous system infection can sometimes leave problems with balance, movement, hearing, memory, or thinking. Recovery may take weeks or months, and some effects can be long term.

During pregnancy, complications can include miscarriage, stillbirth, premature birth, or infection in the newborn. Babies infected before or around birth may develop sepsis, pneumonia, or meningitis.

These complications are not the expected outcome for every person with listeriosis. Risk is greatest with invasive infection and in people already more vulnerable to severe illness.

- Sepsis, a severe body-wide response to infection
- Meningitis, which is inflammation around the brain and spinal cord
- Encephalitis, or inflammation within the brain
- Brain abscesses
- Seizures
- Heart infection in rare cases

Prevention

There is no vaccine against listeriosis, but food-safety measures can reduce the risk. This is particularly important during pregnancy, after an organ transplant, at age 65 or older, or when immunity is weakened.

Wash your hands before preparing food and after handling uncooked meat. Keep raw foods separate from cooked or ready-to-eat foods. Wash produce under running water, and clean utensils and surfaces after food preparation.

Keep the refrigerator at 40°F, or 4°C, or colder. Clean spills promptly and follow storage dates because Listeria can continue growing in the refrigerator. Freezing does not reliably kill it.

People at higher risk are advised to avoid unpasteurized milk and foods made from it. Check labels on soft cheeses to make sure they were made with pasteurized milk. Avoid refrigerated pâté, meat spreads, and refrigerated smoked seafood unless the seafood is used in a cooked dish. Shelf-stable or canned versions are different because of how they are processed.

Heat deli meats, cold cuts, and hot dogs until steaming hot before eating them. Cook food thoroughly and reheat leftovers properly. Follow public health instructions about foods involved in a recall, including advice on disposal and refrigerator cleaning.

Food precautions lower risk but cannot remove it completely.

Living with it and what to expect

A mild intestinal infection often settles within a few days. Continue drinking fluids, and return to normal food as you are able. Seek advice if symptoms are not improving, you cannot keep fluids down, or you belong to a group at higher risk of invasive infection.

Recovery from invasive listeriosis takes longer. Fever and other signs of infection should improve with effective treatment, but tiredness and reduced strength may continue for a time after leaving hospital.

Meningitis or encephalitis can require months of recovery. Rehabilitation, hearing assessment, or support with movement, balance, memory, or daily activities may be needed. Some people recover fully, while others have lasting effects.

Pregnancy follow-up is based on how far the pregnancy has progressed, symptoms, and test findings. Care may include monitoring the pregnancy and planning newborn assessment after birth. Exposure alone does not mean that the pregnancy has been harmed.

After treatment is complete, listeriosis does not normally become a lifelong infection. It is possible to be exposed again because immunity after infection does not provide dependable protection. Continuing food-safety precautions is therefore important.

When to get medical help

Contact a healthcare professional promptly if you develop fever, muscle aches, nausea, or diarrhea after eating food recalled because of Listeria , especially if you are pregnant, aged 65 or older, or have weakened immunity.

During pregnancy, seek same-day medical advice for fever or flu-like symptoms after a possible exposure. Also seek urgent pregnancy assessment for vaginal bleeding, fluid leaking, regular painful contractions, or noticeably reduced fetal movement.

Get urgent medical help for persistent vomiting, signs of dehydration, worsening fever, or unusual weakness.

Call emergency services for:

A newborn with poor feeding, unusual sleepiness, breathing problems, fever, or a low temperature needs immediate medical assessment.

If you ate a recalled food but feel well, this is not usually an emergency. Follow the recall instructions and monitor for symptoms. People in higher-risk groups can contact a healthcare professional for routine advice about what to watch for.

- Confusion, difficulty waking, or loss of consciousness
- A severe headache with a stiff neck
- A seizure
- Severe breathing difficulty

- Blue, gray, or very pale skin
- Signs of shock, such as fainting or cold, clammy skin

Common questions

Is listeriosis the same as food poisoning?

It is one type of foodborne infection. It may cause a brief illness like other forms of food poisoning, but it can also spread into the blood or nervous system. That invasive form needs medical treatment.

How soon do symptoms start after eating contaminated food?

Intestinal symptoms often start within about 24 hours. Invasive illness usually starts within two weeks, although symptoms can appear up to about ten weeks after exposure.

Can I catch listeriosis from another person?

Ordinary close contact does not usually spread it. The main route is contaminated food. It can pass from a pregnant person to the baby before or around birth.

I ate recalled food. Do I need a test?

Testing is not usually recommended when you have no symptoms. Dispose of or return the food as directed, clean any surfaces it touched, and watch for symptoms. Seek advice sooner if you are pregnant or have a higher risk of invasive infection.

Can pasteurized cheese still contain Listeria?

Pasteurization kills Listeria , but cheese can become contaminated later during production or handling. Check recalls, keep cheese refrigerated, and do not eat products that are past their use-by date or have been recalled.

Does cooking kill Listeria?

Yes. Thorough cooking kills the bacteria. Refrigeration and freezing do not reliably remove them, so safe storage and preventing contamination after cooking also matter.

Sources

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