CONDITION

Salmonella enterocolitis

Salmonella enterocolitis is an intestinal infection that usually causes diarrhea, fever, and stomach cramps.

WHAT IT IS
Salmonella infection causing inflammation of the intestines

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Diarrhea, fever, stomach cramps, nausea

WHAT CAUSES IT
Infection with nontyphoidal Salmonella bacteria

HOW IT IS DIAGNOSED
Stool culture or molecular stool testing

MAIN TREATMENT
Fluids and supportive care; antibiotics for selected cases

CAN IT BE CURED?
Yes, most infections clear without antibiotics

IS IT AN EMERGENCY?
Sometimes, with severe dehydration or bloodstream infection

LONG-TERM OUTLOOK
Most people recover fully within days to weeks

Overview

Salmonella enterocolitis is an infection of the intestines caused by Salmonella bacteria. It is usually a foodborne illness, meaning it is often caught by eating or drinking something contaminated with the bacteria.

The condition is also called nontyphoidal salmonellosis. It is different from typhoid fever, a more serious illness caused by particular types of Salmonella that are uncommon in many countries.

Salmonella enterocolitis usually causes diarrhea, fever, and stomach cramps. Most people recover with rest and enough fluid, often within about a week. Antibiotics like amoxicillin or doxycycline are not routinely needed for an uncomplicated infection.

The main short-term concern is dehydration from losing water and salts through diarrhea or vomiting. In a small number of people, the bacteria spread beyond the intestines into the blood or another part of the body. This is more likely in babies, older adults, and people with certain medical conditions.

Symptoms

Symptoms usually begin within several hours to several days after exposure. Different people can become ill at different times even if they ate the same contaminated food.

Common symptoms include:

Diarrhea and fever commonly settle within several days. Bowel habits can take longer to return fully to normal.

Dehydration can cause a dry mouth, strong thirst, dark urine, less frequent urination, dizziness, or unusual tiredness. Babies may have fewer wet diapers, no tears when crying, or a sunken soft spot on the head.

Symptoms alone cannot confirm Salmonella because several other infections can cause a similar illness.

- Watery diarrhea, which may sometimes contain blood or mucus
- Stomach pain or cramps
- Fever and chills
- Nausea, vomiting, headache, or reduced appetite

Causes and risk factors

Salmonella enterocolitis happens when nontyphoidal Salmonella bacteria enter the mouth and reach the intestines. The bacteria then irritate and inflame the intestinal lining.

Common sources include:

Food may look, smell, and taste normal even when it contains Salmonella. Cross-contamination can also occur. For example, raw chicken juices may spread bacteria to a chopping board, hands, utensils, or food that will not be cooked.

Anyone can become infected. Exposure may be more likely when food is not cooked or stored safely, hands are not washed after handling animals, or safe water and sanitation are limited.

The chance of a severe or invasive infection is higher in babies, older adults, and people with

weakened immune systems. Certain heart, blood vessel, or joint conditions can also increase the risk of bacteria settling outside the intestines.

- Undercooked poultry, meat, or eggs
- Raw milk or foods made with unpasteurized milk
- Contaminated fruit, vegetables, sprouts, or processed foods
- Contact with infected people or contaminated surfaces
- Contact with reptiles, amphibians, backyard poultry, or other animals

Diagnosis

Many mild cases improve without testing. Testing is more likely when symptoms are severe, there is blood in the stool, the illness is lasting longer than expected, or identifying the cause could affect treatment or public health action.

A stool sample can be examined using:

A positive molecular test may be followed by a culture. A culture can help public health teams investigate outbreaks and can show which antibiotics are likely to work if treatment is needed.

Blood cultures may be taken if there are signs that the infection has entered the bloodstream. Other tests, such as kidney function and salt levels, may be used to assess dehydration or complications.

- A culture, which grows Salmonella bacteria in a laboratory
- A molecular test, which looks for genetic material from the bacteria

Treatment and management

The main treatment is replacing the fluid and salts lost through diarrhea and vomiting. Small, frequent drinks may be easier to tolerate than large amounts at once. An oral rehydration solution contains a measured balance of water, sugar, and salts and can be useful when fluid loss is significant.

Breastfeeding can usually continue. Older children and adults can return to their usual food as appetite improves. Very sugary drinks may worsen diarrhea in some people.

Hospital care may be needed if you cannot drink enough or become severely dehydrated. Fluids can then be given through a vein.

Antibiotics are not routinely used for mild, uncomplicated Salmonella enterocolitis. In

otherwise healthy people, they often do not shorten the illness and may cause side effects or allow the bacteria to remain in the stool for longer.

Antibiotics may be considered when an infection is severe, has spread outside the intestines, or affects someone at higher risk of complications. The choice depends on test results, local antibiotic resistance, allergies, age, pregnancy, and other health conditions.

Medicines that slow the bowel may not be suitable if you have fever or bloody diarrhea. They can sometimes prolong an infectious illness. Ask a pharmacist or healthcare professional before using them, especially for a child.

Complications

Dehydration is the most common complication. It can usually be prevented or treated by replacing fluids early, but severe dehydration may require hospital treatment.

Occasionally, Salmonella enters the bloodstream. This is called bacteremia. The bacteria may then infect another area, such as a bone, joint, blood vessel, heart valve, or the tissues around the brain. These infections need prompt medical assessment and antibiotic treatment.

Some people develop reactive arthritis after the intestinal infection has settled. This causes painful or swollen joints because the immune system continues reacting after the bacteria are gone. Eye irritation or pain when urinating may occur at the same time. Symptoms may last for months, although the course is different for each person.

A Salmonella infection can also be followed by longer-lasting changes in bowel habits, sometimes called post-infectious irritable bowel syndrome. This may cause cramps, diarrhea, constipation, or bloating without an ongoing Salmonella infection.

Prevention

Salmonella infections cannot always be prevented because contaminated food may not appear spoiled. Careful food handling and handwashing can reduce the risk.

Cook poultry, meat, and eggs thoroughly. Keep raw animal products separate from ready-to-eat foods. Wash hands, utensils, chopping boards, and work surfaces after contact with raw meat or eggs. Do not wash raw poultry, because splashing water can spread bacteria around the kitchen.

Choose pasteurized milk and juice. Wash produce under clean running water, although washing cannot remove every germ. Store perishable food at a safe temperature and follow

local food safety advice.

Wash your hands with soap and water after using the toilet, changing a diaper, handling animals, cleaning animal areas, and before preparing food. Supervise young children around animals. Reptiles, amphibians, and young poultry can carry Salmonella even when they appear healthy.

If you have diarrhea, avoid preparing food for other people. Do not swim in shared pools or natural swimming areas while ill. Rules for returning to work, school, or childcare may be stricter for food handlers, healthcare workers, and young children, so follow local public health instructions.

Living with it and what to expect

Most people recover at home. Fever and diarrhea usually improve within several days, but energy levels and appetite may take longer to return. Bowel movements can remain loose or irregular for weeks, and sometimes longer.

You may continue to pass Salmonella in your stool after you feel better. Careful handwashing remains important, particularly after using the toilet and before touching food.

A past infection does not provide reliable lifelong protection. It is possible to develop salmonellosis again after another exposure.

Routine follow-up is often unnecessary when symptoms resolve fully. Follow-up may be appropriate if diarrhea continues, weight is not returning, joint symptoms develop, or a public health team requests another stool test. Repeat testing is not routinely needed for everyone, but local rules may require it for certain jobs or childcare settings.

Most people return to their usual activities without lasting effects. Recovery may take longer after severe dehydration, bloodstream infection, or another complication.

When to get medical help

Seek urgent medical advice if you have bloody diarrhea, persistent vomiting, worsening stomach pain, or signs of dehydration. You should also seek advice if symptoms are not beginning to improve after several days.

Contact a healthcare professional early if symptoms affect a baby, an older adult, someone who is pregnant, or a person with a weakened immune system or major long-term condition. These groups may need closer assessment even when symptoms initially seem mild.

Get emergency help if you or the affected person:

After the diarrhea has settled, arrange routine medical review for new joint swelling, ongoing bowel changes, unexplained weight loss, or symptoms that keep returning.

- Faints, becomes confused, or is very difficult to wake
- Has severe weakness with little or no urine
- Cannot keep fluids down and is becoming rapidly more unwell
- Develops signs of shock, such as cold clammy skin or very fast breathing
- Has severe abdominal pain with a rigid or markedly swollen abdomen

Common questions

How long does Salmonella enterocolitis last?

Most uncomplicated infections improve within about a week. Diarrhea may settle before your appetite, energy, and bowel habits return to normal. A more severe infection or complication can take longer to recover from.

Do I need antibiotics for Salmonella?

Most otherwise healthy people with an infection limited to the intestines do not need antibiotics. Fluids and supportive care are usually enough. Antibiotics are mainly considered for severe, invasive, or higher-risk infections.

Is Salmonella contagious?

Yes. Bacteria in stool can spread through unwashed hands, contaminated surfaces, food, or water. You may continue passing the bacteria after symptoms stop, so careful handwashing remains important.

Can I go to work or school with Salmonella?

Stay home while you have active diarrhea or vomiting. When you can return depends on your symptoms, local rules, and the type of work or setting. Food handlers, healthcare workers, childcare workers, and young children may need specific clearance.

What should I eat while recovering?

Drink enough fluid and eat as your appetite allows. Simple foods may feel easier at first, but a highly restricted diet is not usually necessary. Oral rehydration solution can help replace salts as well as water when diarrhea is frequent.

Can Salmonella cause long-term problems?

Most people recover without lasting problems. A minority develop reactive arthritis or longer-lasting bowel symptoms. Invasive infections can have more serious effects, particularly if a bone, joint, blood vessel, or other organ becomes infected.

Sources

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