

Salmonella infection



Salmonella infection is one of many possible causes of gastroenteritis (also known as 'gastro'). There are thousands of different types of *Salmonella* bacteria and they occur in many domestic and wild animals, including birds, sometimes causing illness in them. Two specific types of *Salmonella* can cause typhoid and paratyphoid fever, which causes a different illness to that described below. Typhoid and paratyphoid infections can be serious and are not common in Australia.



Salmonella infection is a notifiable condition

How *Salmonella* is spread

Salmonella infection usually results from ingestion of the bacteria from contaminated food, water or hands. Eggs, milk, meat or poultry are particularly high risk foods. Fruit and vegetables may also be contaminated, especially if manure has been used as fertiliser.

People may become infected if they transfer animal faeces containing *Salmonella* bacteria from their hands to their mouths, for example, if eating after touching animals and failing to wash their hands.

Person-to-person spread may occur when hands, objects or food become contaminated with faeces from people who are infected and the bacteria are then taken in by mouth by another person.

Signs and symptoms

Symptoms may include:

- > fever
- > diarrhoea
- > loss of appetite
- > headache
- > stomach cramps
- > nausea and vomiting.

Sometimes there may be blood or mucus in the faeces. Dehydration is a serious complication. The illness may be particularly severe in young children, the elderly and people with immune suppression.

A small percentage of people may develop arthritis after having a *Salmonella* infection.

Diagnosis

Diagnosis is made by growing *Salmonella* bacteria from a faecal specimen or by detecting *Salmonella* in a faecal sample using a PCR (polymerase chain reaction) test in a pathology laboratory.

Incubation period

(time between becoming infected and developing symptoms)

6 to 72 hours, usually 12 to 36 hours.

Infectious period

(time during which an infected person can infect others)

The faeces are always infectious when symptoms are present. Some people continue to carry *Salmonella* bacteria in the bowel and shed them in the faeces for months after recovering.



Treatment

Recovery from *Salmonella* infection usually occurs within a week and antibiotic treatment is not normally required. However, a doctor may prescribe antibiotics for young infants, the elderly and in some other situations. See also Typhoid and paratyphoid.

Gastroenteritis is a common illness, which can be particularly serious in young children.

The following are general recommendations for the treatment of gastroenteritis:

- > Give plenty of fluids. Oral rehydration solution is highly recommended for children with mild to moderate dehydration. It is available at pharmacies and should be administered following the instructions on the packaging.
- > Mildly unwell children should be given their usual fluids more often. Carbonated (fizzy) drinks or undiluted juice should be avoided.
- > Medicines to prevent vomiting or diarrhoea should not be given (especially in children), except where specifically advised by a doctor.
- > Breastfed babies should continue to be breastfed throughout their illness.
- > Children on formula or solid diets should restart their normal diet (including full strength lactose containing milk) following rehydration with oral rehydration solution.
- > Children who are hungry or ask for food should be given small portions of their usual foods, but avoid foods high in sugar or fat.

When to seek medical advice

Seek medical advice if any of the following symptoms occur:

Adults

- > Signs of dehydration, such as thirst and decreased urination, lethargy, dry mouth, feeling faint on standing
- > fever
- > severe abdominal pain
- > bloody diarrhoea.

Children

- > Signs of dehydration, such as thirst and decreased urination, lethargy, dry mouth, sunken eyes, feeling faint on standing
- > fever
- > abdominal pain
- > bloody diarrhoea
- > any symptoms in a child less than 12 months of age.

Prevention

- > Exclude people with *Salmonella* infection from childcare, preschool, school and work until there has been no diarrhoea for 24 hours. If working as a food handler in a food business, the exclusion period should be until there has been no diarrhoea or vomiting for 48 hours.
- > Infants, children and adults with *Salmonella* infection should not swim until there has been no diarrhoea for 24 hours.
- > Cook meat thoroughly, until the juices run clear.
- > Do not purchase dirty or cracked eggs.
- > Strict food handling procedures should be used when preparing dishes containing raw or incompletely cooked eggs, such as homemade ice cream and mayonnaise.
- > Do not consume unpasteurised milk.
- > Follow good food handling procedures.
- > Follow good hand washing and keeping areas clean procedures.
- > Recognise the risk of *Salmonella* infections in pets. Chickens, ducklings, tropical freshwater fish and turtles are particularly risky for small children.
- > Hand washing after handling raw meat, (especially chicken) or raw eggs
- > Always wash fruit (including melons) and vegetables before eating. If home grown, wash them before bringing them into the house.

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- > Infected people who no longer have symptoms should take special care with hand washing if they are involved in food preparation or in caring for patients in hospital, the elderly or children.
- > Babies and small children without diarrhoea who are not toilet trained should wear tight fitting waterproof pants or swimming nappies in swimming pools and changed regularly in the change room. When faecal accidents occur, swimming pools should be properly disinfected.

Useful links

Food safety www.sahealth.sa.gov.au/foodsafety

- > Preventing food poisoning at home

SA Health website www.sahealth.sa.gov.au

- > Collecting a faecal sample
- > Exclusion periods from childcare, preschool, school and work
- > Hand hygiene
- > Keeping areas clean
- > Typhoid and paratyphoid
- > When you have a notifiable condition

You've Got What? 5th Edition

Communicable Disease Control Branch

Telephone: 1300 232 272 Email: HealthCommunicableDiseases@sa.gov.au

The SA Health Disclaimer for this resource is located at www.sahealth.sa.gov.au/youvegotwhat



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