

Information sheet about pathogens in humans – hygiene keeps you safe!

What are salmonella?

Salmonella are bacteria that occur around the world. A salmonella infection is a typical food infection that causes diarrhea. The pathogens reproduce in the gastrointestinal tract of people and animals. Larger outbreaks occur in Germany from time to time as well.

How are salmonella transmitted?

Through food

Salmonella most frequently enter the human digestive tract through food. They can quickly spread on non-refrigerated food. The bacteria may also get into the food as a result of poor kitchen hygiene – for example, via contaminated cutting boards or surfaces.

Food that is more frequently contaminated with salmonella:

- ▶ Raw or incompletely cooked eggs
- ▶ Food and preparations containing egg, especially if they contain raw eggs such as creams, salads or raw cake dough
- ▶ Raw meat, raw minced meat or steak tartar, raw sausages such as pork/beef sausage or salami

Important: Plant-based food can also be infected with salmonella!

From person to person

An infection can also pass from person to person through a smear infection, particularly in cases of poor hygiene. The bacteria from the intestine are transmitted through minute traces of stool residues on sufferers' hands. From the hands, the pathogens enter the mouth.

Through direct animal contact

Infections through direct contact with animals are very rare. However, salmonella transmission can occur especially when keeping reptiles. Infants and young children in particular are at risk.

What symptoms do the sufferers show?

Sudden diarrhea, a headache, stomach ache, general malaise, and occasionally vomiting are common symptoms of a salmonella infection. Mild fever is also common. The symptoms often persist for several days and then disappear on their own. In rare cases, the illness may take a more severe course, which can involve blood poisoning (sepsis), occasionally accompanied by a high fever.

What's the incubation period – and how long are you contagious?

After infection, the onset of illness takes between 6 to 72 hours, with 12 to 36 hours being typical. Once the symptoms have subsided, individuals are less contagious. Adults excrete the bacteria for up to 1 month. In young children, the bacteria may be excreted for several weeks to several months.

Who is particularly at risk?

Infants, toddlers and older people and people with a weak immune system are particularly at risk. They may experience particularly severe dehydration as a result of diarrhea and vomiting, which increases the risk of further complications.

What should I do if I fall ill?

- ▶ It is important to drink a lot in the case of severe diarrhea and vomiting.
- ▶ Salt sticks help to compensate for the loss of salts. It may be sensible to use electrolyte solutions from the pharmacy if necessary.
- ▶ Make sure you eat easy-to-digest food with sufficient salt intake.
- ▶ Wherever possible, do not prepare meals for others if you are ill yourself.
- ▶ For a period of 4 weeks, special attention should be paid to hand hygiene, i.e. thorough washing of hands with liquid soap after each bowel movement, after changing diapers and before preparing meals.
- ▶ Sufferers should avoid physical exertion as much as possible during the acute phase of the illness.
- ▶ Medical advice should always be sought at an early stage in cases involving infants, young children, pregnant women and weak and elderly people.

- ▶ The regulations set out in the German Protection against Infection Act apply in the case of salmonella. Children younger than 6 years who have been diagnosed with contagious vomiting and/or diarrhea or where this is suspected, are temporarily prohibited from attending community facilities such as schools or nurseries. Parents must inform the community facility about their child's illness. The facility must usually not be visited again until 48 hours after the symptoms have subsided. The exact time will be determined by the responsible health authority. An oral medical judgment makes sense. A written medical certificate is not required.
- ▶ If you have to handle certain food in your job within the scope of section 42 of the German Protection against Infection Act and are suffering from or suspected of having salmonella, you may temporarily not work. The exact time at which you will be allowed back to work will be determined by the responsible health authority.

How can I protect myself?

Good kitchen hygiene: correct handling of food

Salmonella spread primarily at temperatures between 10 °C and 47 °C. They can survive for several months in and on food. Even freezing food does not kill the pathogens!

- ▶ Always put raw meat and sausage, poultry, fish and seafood, eggs as well as creams, salads, ice cream and mayonnaises with raw eggs into the refrigerator or freezer at once after buying them. Ensure that food is chilled during transportation, e.g. in a cool bag, and keep the refrigerator temperature at no more than 7 °C (preferably 5 °C).
- ▶ Clean worktops, kitchen utensils and your hands between preparing different types of food. Prepare meat and vegetables or salad on different worktops.
- ▶ In order to safely kill off salmonella, a temperature above 70 °C (even inside the food) must be reached for at least 10 minutes during the preparation and reheating of food.
- ▶ When heating frozen food and also heating food in the microwave, ensure the cooking time is long enough.
- ▶ Eat hot food within 2 hours of last heating it.
- ▶ Consume food on the day you purchase it if the refrigeration recommendations cannot be met (e.g. 2 °C for minced meat).
- ▶ Always prepare instant products just before you consume them.
- ▶ Dispose of the thawing water from meat at once. Rinse all objects and worktops that have come into contact with it with hot water and then wash your hands thoroughly.
- ▶ Change kitchen towels and cloths frequently and machine-wash them at a temperature of at least 60 °C.

Good hand hygiene

Generally: Wash your hands at regular intervals! Wash your hands thoroughly with soap and water after using the toilet, before preparing food, after processing raw animal products, before eating and after contact with animals, especially reptiles.

Information for parents with young children

- ▶ Prepare food for infants with water that has been heated to at least 70 °C and then cooled down quickly. Use the prepared food as freshly as possible.
- ▶ Reptiles are not recommended as pets in households with young children as they can spread salmonella without appearing ill themselves.

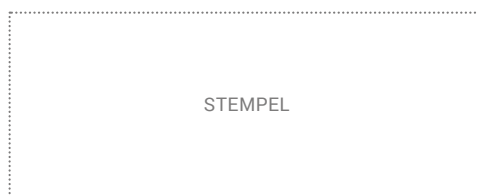
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Where can I get more information?

Your local health authority can provide you with further advice. Since the regulations set out in the German Protection against Infection Act apply in the case of contagious diarrhea illnesses, it has information on the latest situation and a wealth of experience in dealing with the illness.

You can also find useful consumer tips online on the Federal Institute for Risk Assessment website (www.bfr.bund.de) and the Federal Office for Consumer Protection and Food Safety website (www.bvl.bund.de).

More (specialist) information is also available online from the Robert Koch Institute (www.rki.de/salmonellen). Further information on infection control through hygiene can be found on the website of the Federal Centre for Health Education www.infektionsschutz.de.



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