


Food Borne Diseases Complete List: Symptoms & Preventions



Food borne diseases are acute illnesses caused by harmful bacteria or toxins that usually develop within hours of consuming contaminated or poisonous food. Sometimes the symptoms can be mild and will disappear within a few hours but, on some occasions, the results can be life-threatening.

All food handlers have a legal responsibility to ensure the food they serve is safe for customers to eat – but do you know how to prevent food poisoning bacteria from contaminating food? Do you know where the bacteria originate and how they can affect people if consumed?

Take a look at each of the food borne diseases in more detail and update your knowledge with our go-to guide:

BACILLUS CEREUS

Where does bacillus cereus come from?

Bacillus cereus bacteria are part of the bacilli class of bacteria. They are commonly found in a variety of foods and multiply quickly at ambient temperatures, putting prepared foods and leftovers particularly at risk.

Prepared rice dishes are renowned for containing harmful bacillus cereus bacteria.

How do you get bacillus cereus?

Illness is caused when foods containing the heat-resistant bacteria are consumed. The bacteria multiply quickly at room temperature and are likely to affect cooked foods that haven't been held at a constant hot or cold temperature before serving, such as foods prepared for a buffet or food counter.


What are the symptoms of bacillus cereus?

Symptoms include vomiting, which can begin as soon as 30 minutes after eating the contaminated food, and diarrhoea within 6 hours.

The illness can quickly lead to dehydration so it's essential to drink plenty of fluids if these symptoms are being experienced.

How do you prevent bacillus cereus?

Strict temperature control is vital for controlling the growth of bacillus cereus bacteria.



Foods must be cooked thoroughly (at 70°C for a minimum of 2 minutes) and, if they cannot be served immediately, held hot at 63°C or above or held cold at 5°C or below.

It's recommended that prepared rice dishes are not reheated once cooked.

CAMPYLOBACTER

Where does campylobacter come from?

Campylobacter bacteria are the most common cause of food poisoning in the UK and are responsible for around 280,000 cases of food poisoning each year.

Campylobacter is often associated with untreated water, unpasteurised milk, raw meat and poultry: it's thought that four out of five cases of the illness are caused by contaminated poultry (Click to Tweet).

How do you get campylobacter?

Campylobacter is commonly contracted as a result of cross contamination from raw meat and poultry. When the harmful bacteria are transferred from these high-risk foods onto other foods, the food becomes contaminated and the bacteria begin to multiply. When consumed, campylobacter bacteria can cause food borne illness.

What are the symptoms of campylobacter?

Symptoms normally appear 2-5 days after eating the contaminated food and include abdominal pain, diarrhoea, fever and flu-like symptoms.

The illness also has the potential to create further complications that affect the nervous system and cause septicaemia or meningitis.

How do you prevent campylobacter?

The prevention of cross contamination is key for controlling campylobacter bacteria.

Always keep raw and cooked foods separated and ensure that you thoroughly clean hands, equipment and food surfaces after handling raw meat.

Thorough cooking will also help to reduce the risk.

CLOSTRIDIUM BOTULINUM

Where does clostridium botulinum come from?

Botulism is a rare form of food poisoning caused by clostridium botulinum bacteria but it can have fatal results. The bacteria are found in soil, dust and river/sea sediments and can produce toxins if deprived of oxygen. This makes canned, bottled and vacuum-packed foods particularly at risk from contamination.

How do you get clostridium botulinum?

The illness is contracted when the bacteria are consumed by eating food that is contaminated with infected soil or if the food has not been correctly canned or preserved. The bacteria then multiply within the body and attack the nervous system.

What are the symptoms of clostridium botulinum?

Symptoms can be quite severe and include fatigue, headache, nausea, blurred vision, difficulty swallowing and speaking and even paralysis.

Botulism requires serious medical attention and can cause death if not quickly treated. If you develop the symptoms of botulism then the emergency services must be called straight away.

How do you prevent clostridium botulinum?

As the bacteria are incredibly rare it's unlikely that the illness will develop, especially because there are strict controls in place for manufacturers of canned foods. However, the risk is slightly higher if you can your own food, in which case strict hygiene measures must be followed.

For pre-packaged foods, always discard cans that are visibly bulging or damaged as well as any preserved foods that smell foul or are out of date.

CLOSTRIDIUM PERFRINGENS

Where does clostridium perfringens come from?

Clostridium perfringens pathogens originate in the bowels of many animals and so can affect meat products as well as root vegetables that have come into contact with contaminated soil/manure.

The bacteria are endotoxins and multiply rapidly, particularly on meat, poultry or meat products that have been cooked slowly (like casseroles, gravies and sauces) or that are stored at an ambient



temperature for a long time before serving.

How do you get clostridium perfringens?

The bacteria enter the human intestine and produce toxins when contaminated food is consumed. Foods that are particularly at risk are:

Those that have been prepared in large quantities and held at a 'warm' temperature before being eaten.

Foods that have been cooled too slowly, giving bacteria a long period of time in which to multiply.

What are the symptoms of clostridium perfringens?

Abdominal pain and diarrhoea, which begin suddenly and last for around 24 hours.

Clostridium perfringens does not usually cause vomiting.

How do you prevent clostridium perfringens?

Strict temperature control is essential for preventing clostridium perfringens from multiplying:

Hot foods must be portioned and cooled rapidly.

Cooked foods must be held at a constant high temperature (63°C or above) if they are waiting to be served.

ESCHERICHIA COLI (E.COLI)

Where does E. coli come from?

E. coli bacteria are found in the digestive systems of animals and are generally harmless, but certain strains of the bacteria can cause food poisoning. The bacteria are very tough and can survive for up to 60 days on work surfaces and equipment.

E. coli is common in cattle and so often affects beef products (in particular mince and mince products) and milk.

How do you get E. coli?

Most cases of E. coli occur from eating undercooked beef or drinking raw, unpasteurised milk. When consumed, the bacteria enters the intestine and can be incubated there for several days before causing illness.

What are the symptoms of E. coli?

Symptoms include abdominal pain, diarrhoea, fever and vomiting and can be fatal for people who are vulnerable to illness, such as the



elderly, young children or people with weakened immune systems. The symptoms can last for days or even weeks and emerge from 12 hours after eating contaminated food.

How do you prevent E. coli?

Preventing cross contamination between raw and cooked foods is essential, so these foods should always be stored and prepared separately.

Avoid using raw milk in food products and ensure that beef is cooked thoroughly and to the correct temperature before eating (70°C for a minimum of 2 minutes).

ESCHERICHIA COLI 0157

Where does Escherichia coli 0157 come from?

E. coli 0157, also known as VTEC, is a food borne infection that is found in the gut and faeces of many animals, particularly cattle. It is an uncommon form of food borne illness but can cause severe symptoms which can be passed from one person to another.

How do you get Escherichia coli 0157?

People get E. coli 0157 from:

Eating contaminated food, in particular undercooked meat and raw leafy vegetables.

Coming into contact with infected animals/faeces.

Coming into contact with someone else with the infection.

As a result of poor personal hygiene.

People who already have E. coli 0157 are infectious for around a week but may carry the illness for several months after recovering.

What are the symptoms of Escherichia coli 0157?

Symptoms commonly include bloody diarrhoea and stomach cramps. The symptoms start around 3-4 days after contact with the bacteria and can last up to 2 weeks.

How do you prevent Escherichia coli 0157?

Strict hygiene practices are essential for preventing the spread and contraction of E. coli 0157.

Always wash your hands thoroughly before handling food, after going to the toilet and after coming into contact with an infected person. Clean all surfaces regularly, including worktops, door



handles, wash basins and toilets. For food businesses it's recommended that disposable towels are used rather than hand towels to prevent the spread of infection.

LISTERIOSIS

Where does listeriosis come from?

Listeriosis is an infection that develops after eating food contaminated with listeria bacteria. The bacteria are widespread throughout the environment and so can affect fruit and vegetables as well as meat and dairy products that have come from infected animals.

Unlike most bacteria, listeria can survive and multiply at low temperatures and so is commonly found in chilled, ready-to-eat foods such as prepared sandwiches, cheeses, cooked meats, butter and pâté.

How do you get listeriosis?

Listeriosis occurs when contaminated food is consumed, particularly if it is eaten after its use-by date. The bacteria can also be passed on through contact with the faeces of infected animals or people.

What are the symptoms of listeriosis?

Symptoms include fever, vomiting and diarrhoea and usually only last a few days. In rare cases the infection can become more severe and cause complications, such as meningitis.

Listeriosis is most dangerous for pregnant women and so medical advice should be sought immediately if the signs of listeriosis are present.

How do you prevent listeriosis?

Listeriosis can be prevented through good food hygiene practices, particularly in regards to food storage. Never use food past its use-by date and ensure that refrigerated foods are kept at 5°C or below. Pregnant women should avoid eating the foods most at risk, such as soft cheeses and pâté.

NOROVIRUS

Where does norovirus come from?

Norovirus is the most common stomach virus (gastroenteritis) in the UK. It's estimated that up to 1 million people catch norovirus each year and it regularly affects people in the winter months. The virus



only infects humans.

How do you get norovirus?

Norovirus is commonly spread from person-to-person due to poor hygiene practices. It can also be found in contaminated water. The virus is highly contagious and so can easily be spread from infected people onto surfaces, objects and food if strict hygiene practices are not followed. Raw and lightly-cooked shellfish have also been known to infect people with norovirus.

What are the symptoms of norovirus?

Symptoms include vomiting and diarrhoea and can affect people of all ages. The symptoms are usually mild and last from 12-48 hours. In this time you should avoid contact with other people so as not to spread the infection.

How do you prevent norovirus?

Norovirus is highly contagious so it's important to keep yourself and your food preparation areas clean and disinfected. Wash your hands frequently and keep worktops, equipment and door handles etc clean. Vulnerable people, such as the elderly, pregnant women and young children, should also avoid eating raw or lightly-cooked shellfish.

SALMONELLA

Where does salmonella come from?

There are approximately 2,400 different types of salmonella bacteria: the most common are salmonella enteritidis and salmonella typhimurium.

The bacteria originate in the gut of many farm animals and so can easily contaminate meat products, poultry, eggs and milk, as well as fruit and vegetables that have come into contact with animal manure. Some pets also carry salmonella bacteria.

How do you get salmonella?

People get salmonella when they eat food contaminated with the bacteria. This may be because the bacteria have affected the food products, because raw and cooked foods have been stored together (cross contamination) or due to poor hygiene practices of the food handler.

What are the symptoms of salmonella?

Symptoms include abdominal pain, diarrhoea, vomiting and fever and, on average, it takes between 12-72 hours for the symptoms to



develop following consumption of the salmonella bacteria.

How do you prevent salmonella?

Keeping raw and cooked foods separate at all times is essential for preventing cross contamination. All work surfaces and equipment must be thoroughly cleaned and food handlers should ensure that they maintain a high standard of personal hygiene at all times.

SHIGELLA

Where does shigella come from?

Shigella bacteria contaminate foods that have been washed in contaminated water and can cause infections such as bacillary dysentery or shigellosis. Dysentery is generally transmitted through humans. Shigella bacteria in water sources commonly affect raw fruit and vegetables and shellfish.

How do you get shigella?

Shigellosis is contracted from eating contaminated food that has been washed in unclean water. It is most likely to be contracted in foreign countries where water sources are not sterile, thus affecting fresh fruit and vegetables as well as drinking water and ice cubes.

What are the symptoms of shigella?

Symptoms include stomach cramps, diarrhoea, fever and vomiting and can develop any time within a week after consuming the contaminated food/water.

How do you prevent shigella?

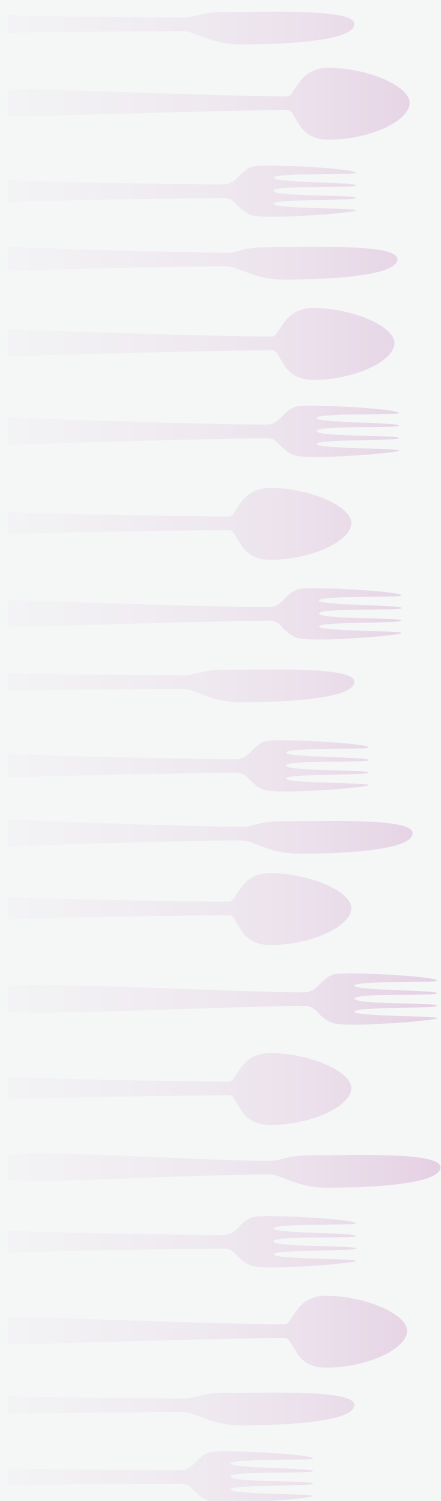
Good personal hygiene is essential for preventing the spread of shigella bacteria, including good sanitary hygiene. Always ensure that your water supply is controlled and from a reputable source.

If abroad where there is a high risk of illness, only use bottled water and avoid food and drink sold from street vendors.

STAPHYLOCOCCUS AUREUS

Where does staphylococcus aureus come from?

Staphylococcal infections, also referred to as 'staph infections', originate from bacteria found on human skin. The bacteria are normally harmless but can cause illness if they enter the body



through a break in the skin, like a cut, graze, insect bite or injection.

How do you get staphylococcus aureus?

The bacteria is transferred between people through close skin contact or from touching contaminated objects, like hand towels or door handles. Poor personal hygiene can result in food being contaminated, particularly meat, which can then result in food poisoning.

What are the symptoms of staphylococcus aureus?

Symptoms include abdominal pain, diarrhoea and vomiting which generally occur around 2-4 hours after eating the contaminated food. Staph bacteria can also cause minor skin infections and, in a small number of cases, infections of the joints, bones and internal organs.

How do you prevent staphylococcus aureus?

Because the bacteria are commonly transferred from surface to surface it's essential that effective hygiene controls are in place. All food handling equipment and surfaces must be thoroughly cleaned and food handlers should ensure that they maintain good personal hygiene and wash their hands regularly.

TYPHOID FEVER

Where does typhoid come from?

Typhoid fever is caused by salmonella typhi, which is a bacterium similar to that of salmonella. The bacteria are found in the faeces of an infected person and can contaminate surfaces, food and water.

How do you get typhoid?

Typhoid fever is usually contracted due to poor hygiene practices, such as not washing your hands after going to the toilet.

It can also be contracted by eating contaminated food products, such as seafood that has come from a contaminated water source, contaminated milk products or raw fruit and vegetables that have been grown in contaminated land.

What are the symptoms of typhoid?

After eating food or drink containing salmonella typhi bacteria they will multiply in the digestive system and can cause stomach pain, diarrhoea, constipation and high temperatures.



If untreated, the bacteria can spread into the bloodstream and cause serious complications, particularly in developing countries with poor sanitation. A doctor should be contacted if you have symptoms of typhoid fever, particularly if you have recently returned from travelling abroad.

How do you prevent typhoid?

Typhoid fever can be prevented by ensuring that all water used is sterile and safe. There must be no cross contamination between sewage and clean water supplies. It's also essential to adopt good personal hygiene and wash your hands, plus all food handling equipment, thoroughly and regularly.

If you have reason to believe that someone is suffering from the symptoms described for any of the food borne diseases above, then please do seek medical attention where appropriate.

