

Causes | Symptoms | Treatment | Lifestyle & diet | Medicines | Support & resources

Food poisoning

Overview

Food poisoning, also known as food borne-illness, comes from eating food or drinking beverages that have been contaminated by bacteria, viruses, parasites or other toxins or chemicals.

Generally food poisoning is caused by poor food hygiene habits and often causes vomiting and diarrhoea.

More than 250 foodborne diseases have been identified so far. While food poisoning can happen in your own home, some settings pose greater risks than others, with restaurants, commercial caterers, hospitals and aged care facilities are more likely to experience outbreaks.

Fortunately though, most cases can be prevented through frequent handwashing and good food handling practices.

About 5.4 million Australians contract food poisoning each year, resulting in an average of 120 deaths and 1.2 million visits to doctors, 300,000 prescriptions for antibiotics, and 2.1 million days of lost work.

The estimated annual cost of food poisoning in Australia is \$1.25 billion.

Cause

Poor hygiene and sanitary practices while food is being grown, raised and/or prepared can lead to contamination. Storing food at the wrong temperature can also contribute.

The most common bacterial causes of food poisoning include:

- Salmonella:** Most people associate salmonella with eggs and poultry, but it is also found in fish, seafood and other raw or undercooked meats. It can also be found in many other foods that were once considered low risk, including fruits and salad, processed foods including peanut butter, and prepared foods like sandwiches. The more thoroughly eggs, poultry and other contaminated foods are cooked, the more bacteria are killed.
- Staphylococcus aureus:** This bacteria lives in dust, air, and sewage. It is most often spread by food handlers who have not washed their hands, but can also be found on equipment used to process food. Foods at increased risk are those that require significant handling while they are being prepared, and those that are kept at room temperature after they've been prepared. Some examples include salad dressings (and salads such as egg, macaroni, chicken, tuna, potato), cream filled pastries, and milk and dairy products.
- Escherichia coli (E. coli):** There are many strains of E. coli, which causes severe food poisoning. E. coli is most likely to be found in cow products, such as dairy and ground beef. Products such as unpasteurised (raw) milk, unpasteurized apple cider, and soft cheeses made from raw milk are often involved and even foods like spinach have been implicated in outbreaks.

- Campylobacter jejuni (C. jejuni):** It is found in healthy chickens, birds, cattle, and flies, as well as streams and ponds. It is very common, which is why it is so important to cook poultry all the way through. Raw milk is also a common source of infections. The bacteria can be easily killed by properly cooking chicken, pasteurizing milk, and chlorinating drinking water.
- Shigella:** It thrives in crowded living conditions and other places with poor sanitation. It is found in contaminated food and water, and is spread through faeces. For example vegetables can become contaminated if sewage seeps onto the field. Flies also spread the bacteria. Unfortunately food contaminated with shingella often appears and smells normal.
- Clostridium botulinum (C. botulinum):** C. botulinum can only live where there is no oxygen. The most common source of botulism is canned foods that have not been heated sufficiently before canning. Honey has been linked to cases of infant botulism. Sausages and other preserved foods can also harbor the bacteria. Throw away or don't buy bulging cans or containers, and follow strict heating procedures when canning food yourself. And, if something seems to smell off, don't taste it.

The most common viral causes include:

- Noroviruses:** Noroviruses is very contagious. It is found in vomit and faeces and can be spread from person to person, through contaminated food or water, and by touching contaminated surfaces including sheets, benchtops etc. Any food that comes in contact with an infected person can spread the disease. This is the most common cause of Gastroenteritis in Australia.
- Rotavirus:** Rotavirus is the most common cause of food poisoning in infants and children, and there is a vaccine available to prevent it. It is also spread from person to person by food contaminated with faeces.
- Hepatitis A:** Hepatitis A is much more common in the developing world, and is usually transmitted by a food handler that is infected. It can be found in shellfish harvested from contaminated drinking water, uncooked foods and cooked foods that are not reheated after contact with someone who is already infected. A vaccine is available and recommended for travel.

Symptoms

Food poisoning symptoms vary but some of the most common ones are:

- Diarrhoea.
- Fever.
- Nausea.
- Stomach pain.
- Abdominal cramps.
- Headache.
- Vomiting.
- Jaundice (yellow skin and eyes).

- Numbness.

Usually diarrhoea doesn't start until at least 4 to 6 hours after contaminated food is consumed; and it can take up to 3 days or even longer to start. If diarrhoea begins within 4 hours of eating, then the cause is most likely something consumed much earlier that day or on previous days.

Seek urgent medical attention if you have:

- Symptoms lasting for more than 3 days.
- Symptoms that are severe.
- Blood or mucus in diarrhoea.
- Severe abdominal pain.
- Significant weight loss.
- Dehydration.
- A fever of more than 38.5°C.

It is also recommended to seek medical advice if there is a suspected outbreak of a certain bug or if you are at higher risk of complications; for example infants, pregnant women, elderly or people with impaired immune systems.

Diagnosis

For an exact diagnosis of the cause of the food poisoning a stool sample (pooh) must be taken. Most of the time this is not necessary, but there are some situations when it is recommended in order to prescribe the right antibiotic to treat it, if required.

Treatment

In most cases in Australia, food poisoning is "self-limiting", which means it will run its course and resolve itself without any medical treatment.

The biggest thing to be mindful of is to stay hydrated and replace fluids. There is no clinical evidence to support using antibiotics to treat salmonella in either healthy children or adults with "non-severe" diarrhoea—and in fact may actually make things worse.

More severe cases, however, may require antibiotics.

Medicines

In cases where food poisoning leads to complications such as septicaemia (blood poisoning), meningitis or Pneumonia, among other things, your doctor may prescribe an antibiotic such as Ciprofloxacin or Azithromycin.

Randomised control trials have shown that **Diphenoxylate** and **loperamide** are effective in controlling diarrhoea, but they can cause adverse reactions in children and the elderly and are not recommended for these groups.

Lifestyle and diet

Some foods are more likely to cause food poisoning than others. Bear in mind that while the foods listed below have a higher relative risk than other foods the overall chance of becoming ill is still extremely small, especially if good food hygiene habits, like hand washing,

Gastroenteritis

are followed.

Examples of higher-risk foods identified by Food Standards Australia include:

- Cold processed meats.
- Cold cooked chicken.
- Pate.
- Salads prepared in advance for salad bars, and packaged salads.
- Chilled seafood, for example, raw oysters, sashimi, sushi, smoked seafood,; ready-to-eat peeled prawns.
- Soft cheeses.
- Soft-serve ice-cream.
- Unpasteurised dairy products, for example, raw goats' milk.
- Salad bars where prolonged storage or high temperatures allow bacterial growth.
- Delicatessen foods displayed in a way that allows for cross contamination.

To minimize risks

- Keep hot foods hot (>60°C).
- Keep cold foods cold (<5°C).
- Put any food that needs to be kept cold in the fridge straight away, and don't eat it if it has been left out for more than 2 hours.
- Keep foods in the fridge when defrosting or marinating.
- Wash and dry your hands well before preparing any sort of food.
- Keep benches, kitchen equipment and tableware clean and dry.
- Don't let raw meat juices drip onto other foods.
- Separate raw and cooked food and use different cutting boards and knives for each.
- Don't prepare food for others when you have gastrointestinal symptoms.
- Clean and dry your cutting boards and knives well.

It is important to be aware that you might still be at risk of infecting others, so people with jobs such as food handling, health care and childcare in particular, should not work until the symptoms of diarrhoea have disappeared. Hand washing with soap is especially important.

Nutrition

- Drink plenty of fluids to maintain hydration levels.
- While you're still experiencing gastrointestinal it's best to avoid fatty foods, spicy foods, and foods that are high in fibre, such as raw fruits (with the exception of bananas) and vegetables, nuts and whole grains.
- Bland foods like rice or plain bread/toast is recommended.

Support & online resources

Some useful online resources for food poisoning include:

- Food Standard Australia New Zealand provides the latest guidelines on food safety issues. www.foodstandards.gov.au
- NSW FOOD Authority

www.foodauthority.nsw.gov.au/consumers/keeping-food-safe/summer-eating/food-poisoning/).

It'sMyHealth