

Food poisoning and how to prevent it

Don't let your food turn nasty!

Food poisoning is a serious health problem. It can cause severe illness and even death.

Food poisoning is frequently caused by bacteria from food that has been poorly handled, stored or cooked.

Symptoms of food poisoning can include nausea, stomach cramps, diarrhoea, fever, and headaches. Symptoms can occur within 30 minutes after eating, or a number of hours or days later. They can be mild or severe.

Some bacteria can also cause other symptoms. Listeria bacteria may cause miscarriage or other serious illness in susceptible people.

Some people are more at risk from food poisoning including young children, pregnant women, the elderly and people with other illnesses.

Getting help for food poisoning

If you, your family or friends suffer **illness** after consuming food or drink and think the illness is related to food that has been purchased or eaten:

- See a doctor
- Report the illness to your local council health department, so that the cause can be investigated.

Bacteria in the food

Food poisoning bacteria are often naturally present in food, and in the right conditions a single bacterium can multiply into more than two million bacteria in just seven hours. So it is very important not to give bacteria the conditions under which they multiply rapidly.

Food poisoning bacteria are everywhere—in the soil, on animals, on people and on the things people touch and use. It is possible for foods such as meat or vegetables to contain food poisoning bacteria from the start.

Even if food is free of bacteria, it can be contaminated in two ways:

- **During food preparation;** hands and equipment such as knives and cutting boards can be contaminated with bacteria from raw food. If the same hands or tools are then used to prepare ready-to-eat or cooked food, without first being properly washed, then this food can become contaminated with bacteria. If this food is not cooked again before being eaten, the bacteria will not be killed.
- **During storage;** bacteria from raw food can contaminate ready-to-eat or cooked food if they are stored together or come into contact.

The food poisoning chain

For food poisoning to happen there must be a chain of events:

- There must be bacteria on the food.
- The bacteria must have the right conditions to grow, that is, warmth (between 5°C and 60°C), moisture and food.
- The bacteria must have time to grow and multiply.

By preventing each of these the food poisoning chain will be broken and food poisoning prevented.

High-risk food

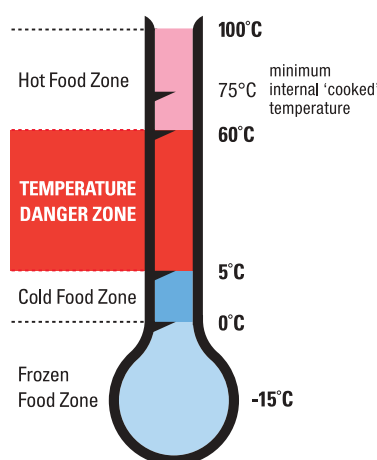
Bacteria grow and multiply on some types of food more easily than on others. The types of foods which bacteria prefer include:

- Meat
- Poultry
- Dairy products
- Eggs
- Smallgoods
- Seafood
- Cooked rice
- Cooked pasta
- Prepared salads, coleslaws, pasta salads
- Prepared fruit salads

Temperature

Bacteria grow quickly in high-risk foods when kept at a temperature between 5°C and 60°C. This is called the Temperature Danger Zone.

If high-risk food is contaminated with food poisoning bacteria and then left in the Temperature Danger Zone for more than 4 hours, it can cause food poisoning. It is very important not to keep high-risk food in the Temperature Danger Zone longer than is absolutely necessary.



Cooking food to over 75°C kills most of the bacteria. Make sure food is thoroughly cooked and the centre of the cooked food has reached 75°C.

Water

Bacteria need moisture to grow. If there is no moisture present, the growth of bacteria may slow down or stop. That is why drying is an effective way to preserve food.

Some common food poisoning bacteria

Bacteria type	Commonly found in	Food poisoning symptoms	Symptoms occur	Special problems
Salmonella	Under cooked meat, poultry, eggs and egg products.	Nausea, stomach cramps, diarrhoea, fever and headache.	Six hours to three days after eating contaminated food. Symptoms can last three to five days.	
Bacillus cereus	Cereals, rice, meat products, packet soups.	Nausea vomiting, diarrhoea and stomach cramps.	One to six hours after eating the contaminated food. Symptoms usually last no longer than 24 hours.	These bacteria produce spores, which are not killed during cooking. When cooked food containing these spores is left in the Temperature Danger Zone, the spores produce toxins (poisons) which can cause food poisoning.
Staphylococcus aureus	Under cooked meat and poultry dishes, egg products, mayonnaise-based salads, cream or custard-filled desserts.	Acute vomiting, nausea, occasionally diarrhoea and cramps.	Thirty minutes to eight hours after eating the contaminated food. Symptoms usually last about 24 hours.	These bacteria produce toxins in food. The toxin is not destroyed during cooking, so correct storage of food before and after cooking is essential.
Campylobacter	Raw meat, raw poultry, raw/un-pasteurised milk. Household pets and flies may be carriers of the bacteria.	Diarrhoea, abdominal pain, nausea, headache and/or vomiting.	Usually two to five days after ingestion. Symptoms may last 7–10 days. 25% of cases may experience a relapse.	The bacteria is killed when food is fully cooked and correctly handled by food handlers.

Some ways of preventing food poisoning

- ☑ **Good personal hygiene;** such as thoroughly washing and drying hands when handling food.
- ☑ **Avoid cross-contamination;** such as keeping raw foods and ready-to-eat foods separate, and using separate and clean utensils, containers and equipment.
- ☑ **Cook foods thoroughly;** make sure foods such as meats and poultry are cooked until core temperature reaches 75°C.
- ☑ **Avoid the Temperature Danger Zone;** keep chilled foods cold at 5°C or colder, and hot food hot at 60°C or hotter.
- ☑ **Avoid spoiled foods;** foods past their use-by dates or food in damaged containers or packaging.
- ☑ **When in doubt, throw it out**

If working in a food business:

- ☑ Follow the business Food Safety Program.
- ☑ Follow the advice given by the Food Safety Supervisor.
- ☑ Be trained in safe food handling.

More information

The Department of Human Services Food Safety Unit has a range of resources on safe food handling available from the website www.health.vic.gov.au/foodsafety or by contacting 1300 364 352.

Local councils can also provide advice about safe food handling.

Food Standards Australia New Zealand also has a range of resources on food handling standards on the website www.foodstandards.gov.au