

INFORMATION SHEET FOOD HYGIENE AND KITCHEN SAFETY

Module 2: Topic 2

Personal health and safe food practices

Food poisoning is an illness which usually occurs between one and 36 hours of eating contaminated or poisonous food. Symptoms normally last from one to seven days and include one or more of the following: abdominal pain, diarrhoea and vomiting, and sometimes fever. Occasionally food poisoning can be very serious and even cause death. That's why it is important to reduce the chances of food poisoning with good food hygiene.

Food poisoning may be caused by:

- Bacteria
- Chemicals and metals
- Poisonous foods for example plants and fish
- Moulds and their toxins
- Viruses



Bacterial food poisoning is by far the most common form of food poisoning. Most people carry some type of food poisoning organism at one time or another, especially when they have diarrhoea and/or vomiting. It is, therefore, extremely important to have high standards of personal hygiene and to follow safe food practices.

Most food poisoning occurs when food is eaten that has been contaminated with harmful germs (bacteria and viruses) and toxins (poisonous substances). Bacteria can contaminate food and then grow to high levels due to poor hygiene practices.

Bacteria are microscopic organisms, often referred to as germs. They are found everywhere, including on and in people, on food, in water, soil and air. Most bacteria are harmless and some are useful, for example, in the manufacture of foods, such as cheese and yogurt. However, a small number of bacteria cause food spoilage and some are responsible for causing illness.

You cannot tell if food contains food poisoning bacteria by how it looks, smells or tastes. This will, however, indicate spoilage, and if food has been allowed to spoil, the conditions may have been right to allow food poisoning bacteria grow to high levels.

Sources of food poisoning bacteria

Source	Where the bacteria can be found	Prevention measures
People	In the nose, mouth, skin, cuts and in the gut. Food can be contaminated directly by the hands, sneezing or coughing	Good personal hygiene when handling food
Raw food	Any raw food can contain food poisoning bacteria, particularly red meat, poultry, raw milk, eggs, shellfish and soiled vegetables	Raw food should always be kept away from foods that are ready to eat
Insects	May transmit food poisoning bacteria because of their feeding habits and where they visit	Kitchens should be kept clean and waste must not be allowed to accumulate so as not to attract insects
Rodents	Can contaminate food with their droppings, urine and hair	Ensure there are no holes around pipework to the kitchen to prevent rodents entering
Rubbish and waste food	If left lying around, they will attract insects and rodents	Empty bins regularly and ensure outdoor waste bins are covered
Animals and birds	Can transfer germs from their feet, hairs and feathers to foods	Animals and birds should be kept out of the kitchen, particularly when preparing food

The best way to avoid food poisoning is to do the following three things:

1. Stop the bacteria getting onto the food

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You cannot tell if food contains food poisoning bacteria by how it looks, smells or tastes. This may, however, indicate spoilage and if food has been allowed to spoil the conditions may have been right to allow food poisoning bacteria grow to high levels.

It is, therefore, important to:

Practise good personal hygiene

People can be a source of food poisoning bacteria, which can be found in the nose, mouth, skin, cuts and in the gut. Food can be contaminated directly by the hands, sneezing or coughing. You must have good personal hygiene when handling food.

When to wash your hands

As your hands are in direct contact with food, they are the main routes for transferring food-poisoning bacteria. Some germs can stay alive on our hands for up to three hours and in that time, they can spread to all the things we touch, including food and other people. So wash your hands regularly throughout the day and especially at these times:

Before

- Preparing food
- Eating
- Handling babies or the elderly
- Starting work, especially if you are a food handler.

After

- Handling raw foods, particularly meat, fish, and poultry
- Going to the toilet
- Touching rubbish/waste bins
- Changing nappies
- Caring for the sick, especially those with gastrointestinal disorders
- Coughing or sneezing, especially if you are sick
- Handling and stroking pets or farm animals.

Other personal hygiene tips

- If you are ill, especially with any gastrointestinal problems, avoid handling foods for others.
- Don't sneeze or cough near foods.
- Cover all cuts burns and sores with waterproof dressings which should be changed regularly – pay extra attention to any open wounds on the hands and arms.
- Avoid working in the kitchen in soiled clothes – when cooking use a clean apron but don't wipe your hands on it.
- If you are preparing lots of food, take off your watch, rings and bracelets, and your hands and wrists before you start.
- Don't smoke while preparing food. People touch their lips whilst smoking and they may transfer harmful bacteria to food. There is also the added risk that cigarette ends and ash will contaminate the food you are preparing.
- Don't brush or comb your hair when you are in the kitchen or near food.
- Avoid touching your nose, teeth, ears and hair or scratching when handling food.

'Use by' dates

The 'use by' date is used on perishable foods that are typically found in chilled display units, such as cooked meats, dairy products and prepared salads.

These foods need to be:

- Stored safely by following the instructions on their labels such as 'keep in a refrigerator'. If you don't follow these instructions, the food will spoil more quickly and you may risk food poisoning.
- Eaten within the 'use by' date. The 'use by' date is about the safety of the food, so don't use any food or drink after the end of the 'use by date', even if it looks and smells fine.

'Best before' dates

The 'best before' date is used on foods with a longer shelf life, such as frozen, dried or tinned food. It provides a guideline about when to use the product to ensure that its quality is of the highest standard. So when the date runs out, it doesn't mean the food will be harmful, but it might begin to lose its flavour and texture.

'Best before' dates will only be accurate if the food is stored according to the instructions on the label such as 'store in a cool dry place' or 'keep in the fridge once opened.' Look out for other storage instructions, such as 'once opened refrigerate and use within one week.'

Cross contamination

This is the transfer of bacteria from sources such as raw food to ready-to-eat foods. For example, this may happen directly when raw meat touches cooked meat or indirectly when a person handles cooked meat after handling raw meat without washing their hands.

2. Stop bacteria multiplying on food

Bacteria multiply on food by splitting in two. This process is known as binary fission. In order to multiply bacteria need the following things:

Warmth

The best temperature for food poisoning to grow is body temperature – around 37°C. To prevent growth, food should be kept below 5°C or above 63°C. The range between these temperatures is often referred to as the 'danger zone.' Food poisoning bacteria multiply quickly in warm rooms, but most will not grow in a fridge.

It is, therefore, important to:

- Keep high risk foods in the fridge at all times
- Cool foods down quickly through the danger zone
- Keep food at room temperature for as short a time as possible when preparing foods.

Food and moisture

Bacteria feed on the food they contaminate. They prefer high protein foods such as meat, poultry and dairy produce. Dried products such as dried milk don't support their growth. However, when they are rehydrated any bacteria present can grow. Dehydration is used as a preservation method for some foods, for example pasta and dried stock such as stock cubes.

Time

Many food poisoning bacteria have to multiply to high numbers in food before they are likely to cause illness. Given the right conditions of warmth, moisture and time, some food poisoning bacteria can divide by two every 10 minutes. This means that in just under two hours one thousand germs can become one million germs and this can cause food poisoning. For this reason, it is essential that high risk foods are not left in the danger zone for longer than necessary. Keep high risk foods in the fridge.

3. Kill bacteria already on food

Adequate cooking will kill most food-poisoning bacteria. Inadequate cooking will allow bacteria to survive and this can cause food poisoning.