



# Safe Food *To Go*



**Food Safety**  
AUTHORITY OF IRELAND





## Safe Food *To Go*

In the hustle and bustle of today's world, more and more people are eating convenience food and "food to go". Hot and cold meals are being served to hungry consumers on nearly every street as they go about their busy lives. Therefore it is important for those preparing and handling this food to remember that poor food handling practices can cause food poisoning.

Food poisoning can be very serious. Symptoms vary from mild discomfort due to vomiting and diarrhoea to life threatening illness. Infants, pregnant women, the frail elderly and the sick are most at risk from food poisoning. So, whether you are serving hot sausage rolls in a petrol station or preparing ham and coleslaw sandwiches in a mini-market, you need to make sure the food you prepare and serve is safe to eat.

By law all food handling staff must be supervised, instructed and/or trained in food hygiene commensurate with their responsibilities.

You can prevent your customers from getting food poisoning by following the simple rules outlined in this leaflet.



## What causes *food poisoning*?

While viruses cause some food poisoning cases, most result from bacterial contamination.

Bacteria are tiny living structures that can only be seen with a microscope. Most bacteria are harmless but some can cause disease. If present in food, some of these disease-causing bacteria can cause food poisoning.

### **Where are these bacteria found and how do they get onto food?**

They are found everywhere – in soil and water as well as on people, animals and food.

## *Cross-contamination*

Food handlers who handle food incorrectly during preparation can spread bacteria and contaminate food directly by:

- letting raw food touch cooked or ready-to-eat food.
- letting blood or juices from raw food drip onto other food.



**Raw products**, especially raw meats, poultry and fish, may contain dangerous bacteria. Bacteria on raw foods may then be transferred onto other food such as cooked or ready-to-eat foods during food preparation or storage. This is called cross-contamination.

**People** carry bacteria on and in their bodies – on their hands, face, nose and in their stomachs. Food handlers can transfer bacteria onto food if they don't wash their hands after using the toilet or if they touch their faces or hair while preparing the food. Customers, like food handlers, can contaminate food by sneezing or touching food on display.

**Pests** such as insects, pets, birds and rodents can all carry bacteria and may infect any food they touch.

**Dirty** food premises harbour bacteria on dirt and food particles which can contaminate the food being prepared.

#### **Food handlers may also spread bacteria and contaminate food indirectly by:**

- handling cooked or ready-to-eat food immediately after handling raw food, without washing hands.
- using equipment such as knives, kitchen utensils and chopping boards for the preparation of cooked and ready-to-eat foods after preparing raw food, without cleaning the equipment.
- placing cooked or ready-to-eat food on counter tops where raw food has been, without cleaning and disinfecting the work surface.
- using the same dish cloth for different work surfaces or using dirty cloths.



## What makes *bacteria* grow?

**Bacteria need food, warmth, moisture and time to grow and multiply.**

**Food** – bacteria grow well on high protein foods such as meat, fish and dairy products.

**Temperature** – most bacteria need warm conditions to grow. They grow best at body temperature (37°C).

**Moisture** – bacteria require moisture to grow. They do not grow well on dry products such as biscuits.

**Time** – Bacteria multiply very quickly and can double in number every 20 minutes.

At room temperature bacteria can multiply into millions after only a few hours on one piece of food. One spoonful of contaminated food may be enough to make you very sick – or even kill you.

Cooking food thoroughly kills most bacteria. To do this the centre of the food must reach  $\geq 70^{\circ}\text{C}$  for two minutes or equivalent, e.g.  $75^{\circ}\text{C}$  instantaneously, at the core of the food. The core is taken as the center or thickest part of the food.



## What are *the most common food poisoning bacteria?*

**Salmonella bacteria are most commonly found in poultry but are also found in pigmeat and other foods. Salmonella food poisoning is mainly associated with eating contaminated chicken and eggs and their products.**

Campylobacter has relatively recently been recognised as causing food poisoning and now it exceeds salmonella as the leading cause of bacterial food poisoning in Ireland. It is present in a wide range of animals and birds and is commonly found on raw poultry.

*E. coli* O157 is found in the gut of cattle and is mainly associated with eating undercooked beef burgers but cross-contamination from raw meat can transfer these bacteria to other foods. It can cause serious illness and may even result in death.

*Staphylococcus aureus* is typically found on the hands and in and around the nose of healthy adults. During food preparation food handlers can easily transfer it on to food.



100°C



70°C



63°C



40°C



25°C



5°C



0°C



D  
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# How do I *stop bacteria growing?*

Keep **HOT** food **HOT**.

Keep **COLD** food **COLD**.

## The Danger Zone

Bacteria that cause food poisoning grow at temperatures between 5°C and 63°C – above refrigeration temperatures and below cooking temperatures. Bacteria grow best at warm room temperature – approximately 25° to 40°C.

However, if food is kept out of the danger zone – either cold at refrigeration temperatures less than 5°C, or hot at greater than 63°C – most bacteria will stop growing, although they do not die. Therefore, food should be kept hot in a hot holding cabinet or kept cold in a refrigerated display unit to prevent any bacteria that may be present on the food from multiplying.

**DO** follow the manufacturer's instructions for use on the label.

**DO NOT** leave food out on counter tops at room temperature – more than 2 hours is too long.

Food should be kept in a hot or cold display unit and not left sitting on top where customers can contaminate the food by handling or sneezing.

You should have sufficient space to carry out food preparation safely. There should also be sufficient space for food storage.

Never use food past its 'use by' or 'best before' date and always ensure good stock rotation for all foods whether stored in a hot cabinet, fridge or dry goods store.



## *Burning Hot Tips*

- Cook food thoroughly – the core temperature should reach  $\geq 70^{\circ}\text{C}$  for two minutes or equivalent, e.g.  $75^{\circ}\text{C}$  instantaneously, at the core of the food. This will kill any bacteria present.
- Keep hot food hot – keep hot food in a hot holding cabinet (above  $63^{\circ}\text{C}$ ). This is outside the danger zone.
- Lukewarm food is dangerous – keeping food only warm is a perfect environment for fast growing bacteria.
- Use up hot food within 2 hours – apart from deterioration in the taste and presentation appearance, leaving the food sit for more than 2 hours facilitates bacteria growth.
- First in – First out – ensure the first batch of cooked food placed in the hot holding cabinet is served first.
- Only reheat (i.e. regeneration) once.
- Reheat to piping hot  $\geq 70^{\circ}\text{C}$  at the core of the food.
- Discard hot food leftover at the end of the day.



## *Ice Cold Tips*

- Keep cold food cold – store in a refrigerated display unit (below 5°C). This is outside the danger zone so bacteria will not multiply.
- Only freeze food once – once food is defrosted bacteria can multiply. If this is frozen again the amount of bacteria could be at a dangerous level.
- Defrost thoroughly – if the centre of the food is still frozen it may not be fully cooked before serving and some bacteria may survive.
- Mark leftovers and discard after day 2 – salads and sandwich fillings leftover at the end of the day may be kept for use for the following day provided they are covered and remain at refrigeration temperatures.
- Use up the leftovers first and avoid mixing them with freshly prepared salads or sandwich fillings.
- If cooling cooked food for refrigerated storage – cool food quickly – but let the steam evaporate from the food first before covering and placing in the refrigerator. Cutting the food into smaller portions or spreading in a shallow dish will facilitate quicker cooling.



## How can I *stop the spread of food poisoning bacteria?*

You can prevent the spread of food poisoning bacteria through good food handling practices and by maintaining good personal hygiene.

### **Good** *Food Handling Practices*

- Never allow raw food to come into contact with cooked or ready-to-eat foods.
- Store raw foods separately from cooked and ready-to-eat foods.
- Alternatively store raw food on the bottom shelf in the fridge and store cooked and ready-to-eat food on the top shelves.
- Keep food covered or store it in sealed food containers.
- Wash your hands between handling raw and cooked/ready-to-eat foods.
- Use separate work areas, utensils and equipment for preparing raw and cooked/ready-to-eat foods. If this is not possible, clean and disinfect utensils and work surfaces carefully between these tasks.
- Ensure that your service cloth is kept clean and is replaced frequently.



## **Good** *Personal Hygiene*

### **Wash hands regularly**

- Wash your hands thoroughly using hot water, liquid soap and a nail brush:
  - before starting work.
  - before and after handling all food.
  - after using the toilet.
  - after handling rubbish.
  - after smoking.
  - after sneezing, coughing and using a handkerchief.
  - after performing routine cleaning tasks.

### **Be clean & tidy**

- Be clean and tidy and wear clean protective clothing such as an apron or overall when handling or serving food.
- Keep hair clean and covered under a cap or hairnet. Long hair must be tied up.
- Keep nails clean and short.
- Don't wear strong perfume, nail varnish or excessive make-up.
- Restrict your jewellery to a plain wedding band and small earrings.

### **Treat food with care**

- Do not handle food unnecessarily – use a tongs where possible.
- Do not spit, pick your nose, lick your fingers, taste food with your fingers, eat, chew gum, cough or sneeze near food that you are preparing or serving.
- Cover cuts and sores with a blue waterproof dressing.
- Inform your immediate supervisor if you have diarrhoea or an upset stomach. If you are ill you should not prepare or handle food but may perform alternative duties until the illness has passed.
- Never smoke in food preparation areas .



## **Do I** *have to clean the work area?*

Cleaning is important as bacteria grow on dirt and food particles and can result in food becoming contaminated with food poisoning bacteria.

Always “Clean as you go” and mop up spills as they occur. Try to keep your work area clean and tidy. Clean and disinfect food surfaces regularly.

Detergents clean by removing visible dirt. Disinfectants kill bacteria that are invisible to the eye. It is very important to clean with a detergent first to remove all visible dirt and food debris so the disinfectant can be 100% effective at killing any bacteria that may be present.





Further information is also available from:  
**Food Safety Authority of Ireland**  
Abbey Court, Lower Abbey Street, Dublin 1.  
Tel: 01 817 1300 Fax: 01 817 1301

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