Food and Hygiene

The below represents a summary of basic food and hygiene matters. For those wanting to know a bit more; then undertaking a food and hygiene course is recommended. Many of these are on line and are not expensive. This training is put together with the cooking for others in mind.

Why bother

Put simply: Because your health, and that of others is at stake. With regards to allergies: the impact could result in death, as in the case with Natasha Ednan-Laperouse.

Natasha's Law now requires pre-packaged food to identify all ingredients, so there are also legal reasons for observing good food and hygiene skills. You owe a duty of care. Therefore whoever you are cooking for expects you to have cooked hygienically and to make available the ingredients for their review to enable them to make the choice as to whether it could impact their health.

Food can be harmful if it is corrupted with a substance in the following ways:

- Physical eg piece of glass contained within food during processing
- Chemical eg Pesticide, or contamination from cleaning product
- Allergenic eg peanuts
- Biological eg bacteria

The obligations for you are therefore:

- Not to include anything harmful
- To provide food to the quality expected
- Label and present food in a manner which is not misleading

Food must be safe to eat

Relevant Legal requirements are:

- Food Safety Act 1990 (as amended)
- Food Hygiene regulations (2006, 2013)
- Regulation (EC) No. 852/2004-hygeine and its UK equivalent.

Food and Hygiene

This training will review the following:

1. **Allergies**
2. **Food Poisoning**
3. **Prevention – The 4Cs**

1. Allergies

What is an allergy?

An allergy is a reaction the body has to a particular food or substance**.** Allergies are very common. They're thought to affect more than 1 in 4 people in the UK at some point in their lives. They're particularly common in children, but many children lose the allergy with age.

What are the allergies?

There are 14 allergies covered by EU Law (and therefore adopted by the UK); these are as follows:

1. Celery

Celery is widely used in foods, served as simple sticks and can also be powdered and used as a spice; Celery seeds are used to make celery salt.

2. Crustaceans

This include crabs, crayfish, lobster, prawns and shrimps. Most children may be unaware that they have this allergy as it is not normal for their diet to contain crustaceans

3. Egg

More common in both infants and children, but some people will continue this into adult life. Severe symptoms can lead to anaphylactic shock.

4. Fish

Allergic reactions can be serious and symptoms may come on rapidly

5. Gluten

Gluten is a cereal protein found in wheat, barley and rye. The allergy is normally outgrown. The reaction to wheat may not be an allergic one; it could be an intolerance or Coeliac disease.

6. Lupin

The seeds from this flower are cultivated as food, and can be eaten whole or crushed to make flour.

7. Milk

This allergy occurs when proteins in milk cause the immune system to mistakenly perceive them to be a threat. This can occur in babies and in children and it normally recedes; it only occasionally continues into adulthood.

8. Molluscs

Includes mussels, oysters, squid and octopus. Symptoms can be quite severe and there is always a high risk of cross contamination through the supply chain, therefore symptoms could appear when eating a food which claims not to contain molluscs

9. Mustard

The allergy reaction can be caused from the leaves, seeds, flowers and oil.

10. Peanuts (are related to foods such as peas, beans and lentils).

Symptoms are normally mild, extreme symptoms are rare but include wheezing, swelling in the throat and even anaphylactic shock. There is always a high risk of cross contamination through the supply chain; therefore symptoms could appear when eating a food which claims not to contain peanuts.

11. Sesame Protein

This has become more common and symptoms usually occur straight after eating food containing sesame seed but can occur up to one hour later.

12. Soya

This is a rare allergy. However soya is a common ingredient in many of todays' foods, particularly as a replacement for other allergies/ protein replacement

13. Sulphites / Sulphur dioxide

These are frequently used in food / drink as preservatives. Sulphite allergy is quite rare and is more prevalent in people who suffer with asthma, reactions can cause wheezing and coughing, severe symptoms are rare.

14. Treenut

Some people can start with an allergic reaction to one tree nut, but become allergic to others, nuts are in many products, and the possibility of cross contamination during food production can occur.

What can you do?

1. Ask before you cook if the recipients have any known allergies, and avoid using these.
2. Ask Parents of children if the child/ren has / have any allergies.
3. Clean and disinfect all work tops and utensils to avoid cross contamination
4. Make available a list of ingredients.

The NHS provides helpful advice on allergies and this can be found in: https://allergynorthwest.nhs.uk/resources/allergy-leaflets/

2. Food Poisoning

What is food poisoning?

It is a general term for health problem caused as a result of eating food which may be contaminated by bacteria, toxins or viruses

Symptoms of food poisoning include:

- feeling sick (nausea)
- diarrhoea
- being sick (vomiting)
- stomach cramps
- a high temperature of 38C or above
- feeling generally unwell – such as feeling tired or having aches and chills

Food poisoning is rarely serious and usually gets better within a week.

Good food hygiene is essential to make sure that the food you serve is safe to eat. It helps prevent food poisoning. You can use the 4Cs to prevent the most common food poisoning problems. (see below)

Cause

Bacteria may exist within the food purchased. These may be low in numbers and not harmful at the time of purchase however with warmth (between 5 and 63 degrees), moisture, nutrient, and time; these may increase to unhealthy levels. Therefore chilling, freezing or storing the foods appropriately will delay / reduce the increase in disease causing organisms.

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High risk foods

eg ready to eat meals and meat are labelled with a ***Use by date***.

Low risk foods

eg dried foods are labelled with a ***Best before date***.

The terminology is deliberate.

However where preparing food for others:

1. Comply with the dates on the package. Do not serve out of date foods to others.
2. Check and smell the products. Even if they are in date but appear or smell to be “off”. Then do not cook or serve.
3. If a part of the food is bad: do not cut off the bad part: throw it all away.

3. Prevention - The 4Cs

The four main things to remember for good hygiene are the 4Cs:

- Cleaning
- Cooking
- Chilling
- Cross-contamination

1. Cleaning

Cleaning is defined as the removal of soil, food residue, dirt, grease or other objectionable matter.

Detergents clean the surface and remove grease, but they do not kill bacteria.

Disinfection is the reduction, by means of chemical agents and/or physical methods, of the number of micro-organisms in the environment to a level that does not compromise food safety or suitability.

Disinfectants kill bacteria and should be used on a visibly clean surface. They do not work effectively if the surface is covered in grease or visible dirt. It is also important that you leave the product on the surface for the time specified in the instructions.

Sanitisers can be used to both clean and disinfect as part of a two-stage approach. First use the sanitiser to clean the surface, removing any dirt, food or grease. Re-apply to the visibly clean surface and leave for the required time to disinfect the surface.

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You should do the following:

- Clean and disinfect food areas and equipment between different tasks, especially after handling raw food.
- Clean as you go. If you spill some food, clear it up straight away and clean the surface thoroughly.
- Use cleaning and disinfection products that are suitable for the job and follow the manufacturer's instructions.
- Disinfection products should meet the BS EN standards. Check product labels for either of these codes: BS EN 1276 or BS EN 13697.
- Do not let food waste build up. Dispose of food waste suitably.
- Food industries are required to clean using hot water of more than 82.2 degrees Celsius. This may not be possible for more domestic circumstances.

Not cleaning thoroughly is one of the most common reasons why food businesses are prosecuted. So we should learn from their mistakes.

Cleaning Products

- How the products should be used, including how much they should be diluted and how long they should be left in contact with the surface should be made clear on the container. Follow the manufacturer's instructions.
- The products should be stored away from food areas.
- Cleaning utensils eg mops and bowls should be regularly disinfected.
- Consider the use of cloths for 1 off purposes and throw away after use.
- Wash or change dish cloths, tea towels, sponges and oven gloves regularly and let them dry before you use them again. Dirty or damp cloths allow bacteria to breed.
- Avoid perfumed cleaning / pesticides as these themselves may contain chemicals that may themselves cause a reaction eg asthmatic reaction

2. Cooking

Most types of meat should be thoroughly cooked as there could be harmful organisms present.

Before you serve them, check that:

- they are steaming hot all the way through
- any juices run clear
- there's no pink or rare meat inside

With whole cuts of beef and lamb such as steaks, cutlets and roasting joints (not rolled joints); it is usually only the surface which can be contaminated with food poisoning bacteria. Make sure the meat surface is properly cooked and sealed to kill any bacteria, even if the middle of the meat is still pink.

Avoid:

- Leaving foods in sunlight where they can be warmed
- Mixing hot and cold products

Cooking temperatures

Standard advice is to cook food until it has reached a core temperature of 70°C for 2 minutes.

The other time and temperature combinations are:

- 60°C for 45 minutes
- 65°C for 10 minutes
- 70°C for 2 minutes
- 75°C for 30 seconds
- 80°C for 6 seconds

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Cooking food at the right temperature and for the correct length of time will ensure that any harmful bacteria are killed.

You can check the temperature of a food, using a clean probe. Insert the probe so that the tip is in the centre of the food or the thickest part.

Check the probe is working regularly using boiling water at 100^{o}C

Keeping food hot

Hot food must be kept at 63°C or above. You can keep it below 63°C for up to two hours. If it has not been used within two hours, you should either:

- cool the food as quickly as possible to a temperature of 8°C or below
- throw it away

Reheating food

It is very important to reheat food properly to kill harmful bacteria that may have grown since the food was cooked.

Reheating means cooking again, not just warming up. Always reheat food until it is steaming hot all the way through. You can only reheat your food once.

3. Chilling

Chilling food properly helps to stop harmful organisms from growing. Some foods need to be kept chilled to keep them safe, for example:

- food with a use-by date
- cooked dishes
- other ready-to-eat food such as prepared salads and desserts

Make sure that you:

- follow storage instructions
- put food that needs to be chilled in the fridge straight away
- cool cooked food as quickly as possible and then put it in the fridge. This prevents the fridge temperature from rising.
- keep chilled food out of the fridge for the shortest time possible during preparation
- check regularly that your fridge and display units are cold enough

When you are serving cold foods, they can be kept outside the fridge for up to four hours. If any food is left after this time, you should either:

- throw it away
- put it back into the fridge

Safe storage:

The coldest part of your fridge will be at the bottom. So adopt the following:

Dairy	Top of fridge
Cooked Food	
Fruit and Vegetables	
Meat and Fish	Bottom of Fridge

Food and Hygiene

Your fridge temperature

Cold food must be kept at 8˚C or below. This is a legal requirement in England, Wales and Northern Ireland.

In practice, it is recommended to set your fridge at 5˚C to make sure that food is kept cold enough. Check regularly that your fridge and any display units are cold enough.

Freezing

It is important to take care when freezing food and to handle frozen food safely:

- put frozen food in the freezer as soon as it is delivered
- if you are freezing fresh food; freeze it as soon as it has been delivered or prepared
- divide food into smaller portions and put it in containers or freezer bags before freezing
- if you freeze food that has a ‘use-by’ date; to use later, then make sure you freeze it before the use-by date is past - clearly note the date you are freezing it.
- Certain fishery products intended to be eaten or lightly cooked raw need to be frozen before use.

Defrosting

Ideally, you should defrost food in the fridge. Putting food in the fridge will keep it at a safe temperature while it is defrosting.

If you cannot defrost food in the fridge, you could put it in a container and then place it under cold running water. Raw meat and poultry, including large joints and whole birds, should not be defrosted under cold running water unless they are in a sealed container.

You could also defrost food in the microwave on the ‘defrost’ setting.

Food should be thoroughly defrosted before cooking unless the manufacturer’s instructions tell you to cook from frozen.

4. Cross-contamination

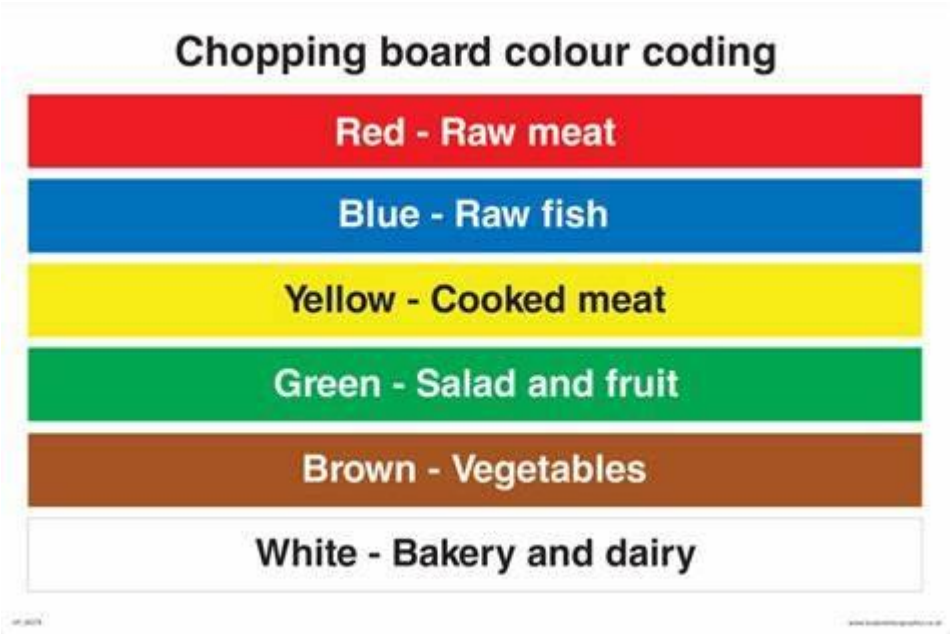
Cross-contamination is when bacteria is spread between food, surfaces or equipment. It is most likely to happen when raw food touches or drips onto ready-to-eat food, equipment or surfaces. For example, if raw meat drips onto a cake in the fridge, bacteria will spread from the meat to the cake. It also occurs through bacteria from one food being passed to another though hands, knives or chopping boards.

Consider the workflow of your kitchen area, and move the foods around in a way that they will not be cross contaminated. Cross-contamination is one of the most common causes of food poisoning.

Preventing cross-contamination

You should:

- clean and disinfect work surfaces, chopping boards and equipment thoroughly before you start preparing food, before changing uses and after you have used them.
- use different equipment (including chopping boards and knives) for raw meat/poultry and ready-to-eat food unless they can be heat disinfected in, for example, a commercial dishwasher. The following colour system is recommended for the use of separate chopping boards:

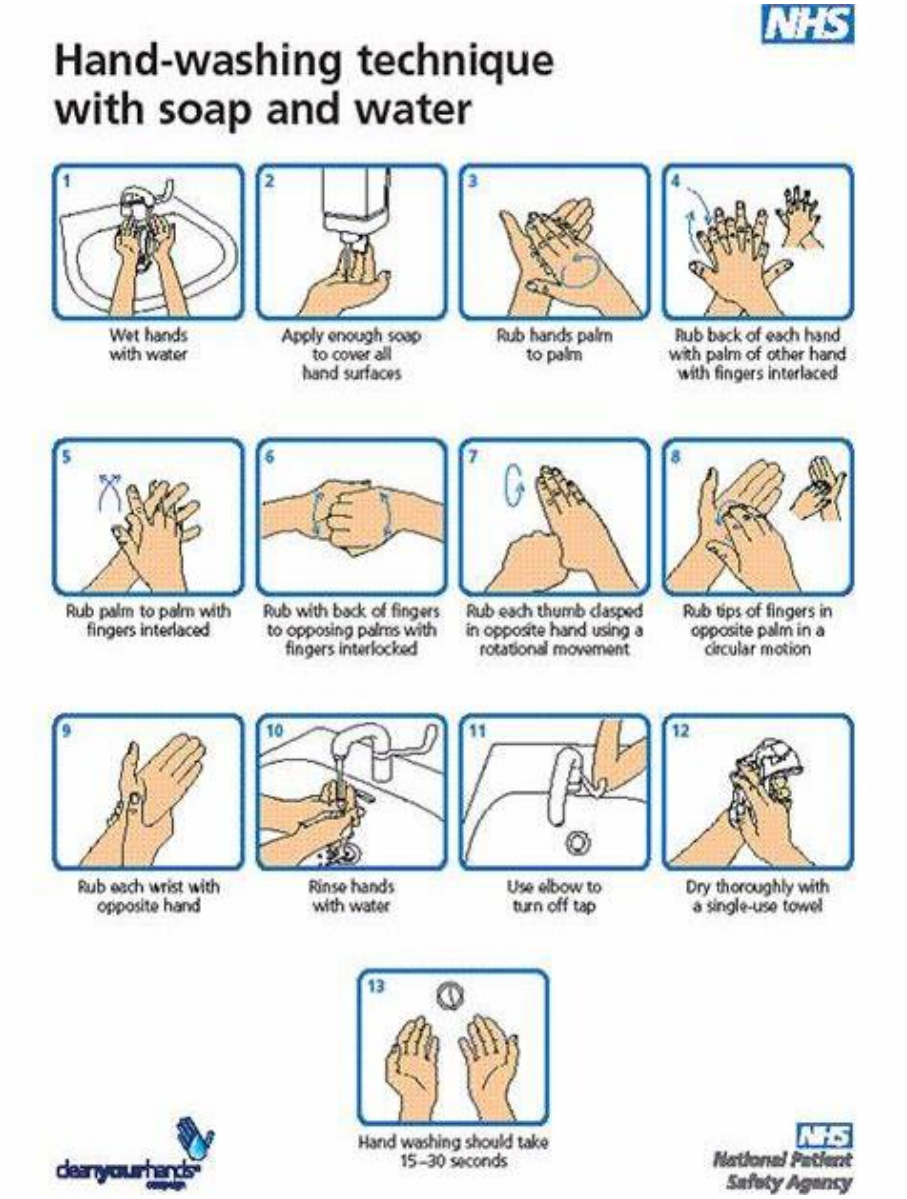


- wash your hands thoroughly before preparing food and after touching raw food. See appendix 1.
- always keep raw and ready-to-eat food separate including packaging.
- store raw food below ready-to-eat food in the fridge
- Consider use of / changing aprons when using different food types.
- Wash machinery and equipment between use for different food types
- Avoid cross contamination through cleaning cloths when cleaning preparation areas / equipment. This can be done by using separate cloths or disinfecting between uses.
- Avoid the wearing of jewellery that may touch the food or clean between uses
- Use clean clothing
- Clean the fridge regularly
- Use bin liners for waste removal
- Do not prepare food for others if you are unwell.

Appendix 1

Personal hygiene

Wash hands using a recognised technique. Anti-bacterial hand gels must not be used to replace handwashing but can be used following handwashing as an additional level of protection. Use soap and not a disinfectant.



Gloves are not a substitute for effective handwashing. If gloves are used, they should be changed as often as you should wash hands and you must wash your hands when changing or removing gloves.