Welcome to an Introduction to Food Hygiene and Safety

After watching this film you will have gained a better knowledge and understanding of food hygiene and safety.

You may think it unusual for a film to begin showing someone washing their hands, this is intentional and it is vital that we all learn to do this properly.

Lots of people only “rinse” their hands, rather than wash them, and it is important that in your role you know the correct procedure for this.

We have included this as handout one, with these notes and you will see it on the screen now as well.

Effective handwashing

• use soap preferably anti-bacterial, and place into palms of hands
• rub hands firmly together, to distribute soap
• rub your fingers together intertwining both hands
• then, bring your fingers down into your palms, like a fist, again rubbing briskly
• wash each thumb separately and the backs and wrists of each hand
• pay particular attention to the base of the palms
• rinse thoroughly and dry well, preferably with disposable towels
• Wash hands before and after handling food and also if you are dealing with body fluids and of course, after you use the toilet.
• If you touch your hair or lick your fingers, you should always wash your hands immediately.

We will refer to this several times during this film, as effective hand washing is known to be vital in the prevention of cross contamination.
All staff involved in the preparation of food must undertake some basic food hygiene training. It is also advisable to involve service users in training, if they help to prepare food.

Each year many many people become ill due to poor food hygiene.

Some people, especially the elderly or very young can become seriously ill and even die. It is therefore essential in the care environment, where vulnerable people are being cared for, that good food hygiene is practised.

It is good practice to be aware food hygiene and safety in our own homes too, although the risk is of course much less.

It is also law that certain food hygiene rules are followed.

**Laws relating to Food Safety**

There are a number of Acts and Regulations which cover food hygiene and safety including:

- Regulation (EC) No. 852/2004
- The Food Hygiene (England) Regulations 2006
- The Food Safety Act
- The Food Safety (General Food Hygiene) Regulations
- The Food Safety (Temperature Control) Regulations

These Acts and Regulations must be adhered to and Environmental Health Officers, authorized officers of the Local Authority, are empowered to ensure that this is done. They will from time to time visit your premises and check that things are being done correctly. They will check that your organization has correct policies, procedures and documentation in place, but they are also there to help you and give advice.

There are some different laws for Scotland and if you work in Scotland you will need to refer to advice from the Food Standards Agency.
Hazard Analysis Critical Control Points. (H.A.C.C.P)

We can help to ensure that the food we serve is safe by identifying the hazards that may affect food, and then taking action to prevent it from being at risk.

We need to control conditions at certain critical points to ensure that our food is safe. This is known as Hazard Analysis Critical Control Points or sometimes H.A.C.C.P.

When using the H.A.C.C.P. system it is important that you know what the main stages are in your own food related activities - it may be different for different environments, but it applies to all settings.

As a general example we will look at the following six steps:

- Buying
- Transporting
- Storing
- Preparation
- Cooking
- Serving

Buying

Food should be bought from premises which are clean and from a supplier that has a good reputation.

Check that foods are stored or displayed correctly before you buy them - check that raw foods are kept separate from cooked foods, and that freezers and refrigerators are working correctly. Raw foods are foods that have not been cooked.

Check that packets have not been damaged or tampered with. Avoid badly dented or ‘blown’ cans.

You should not buy these.
Transportation

Transport chilled or frozen foods quickly and place them in a refrigerator or freezer as quickly as possible – do not leave them in warm cars.

Use a cool box or insulated bag for transporting chilled or frozen foods, especially in warm weather.

You could use ice packs too.

Raw foods should be packed separately from foods which will not be cooked again before being eaten.

If you have your food supplies delivered, check that they have been kept at the correct temperature during transportation, and again check that packets are not damaged on arrival.

Storage

Frozen and chilled foods must be put into freezers and refrigerators as quickly as possible after they have been bought.

Freezers should be operating at a temperature below \(-18\) \text{ degrees centigrade} and refrigerators between \(1\) \text{ degree centigrade} and \(5\) \text{ degrees centigrade}. Temperatures \textbf{must be} checked once a day, and most organizations have a policy stating that temperatures must be checked at least twice a day – with the first check being at the start of the day. This is recognised as being good practice. A thermometer should be placed in the warmest part of the refrigerator or freezer and the temperature checked \textbf{and recorded}, using the appropriate documentation, according to the organisational policies and procedures.
What are high risk foods?

High risk foods are those which are ready to eat and will not undergo any further process, such as cooking, which would destroy any bacteria or germs that might be on them.

Examples of high risk foods are:

- cooked meat and poultry
- cooked meat products such as gravy, meat pies, patés, sausage rolls
- shellfish and other seafoods such as prawns, crabs and oysters
- eggs and products made from raw eggs such as mayonnaise
- cooked rice
- milk, cream and dairy products

In a commercial kitchen there should be separate refrigerators but in a domiciliary setting as this is not possible raw food must be stored at the bottom of the refrigerator. This is to prevent any juices or blood from dripping onto other foods.

Raw food must be kept apart from foods that are considered to be high risk.

Best practice would be to ensure that all foods are kept in separate, covered containers.

What is cross contamination?

Cross contamination is when bacteria or germs pass from one piece of food or equipment on to another piece of food or equipment.

This usually happens when raw food touches or drips on to other food or a piece of equipment, or when people touch raw food with their hands.

We will look at this in more detail in a moment when we look at food preparation.

Food should always be covered, not only to stop it from drying out but also to prevent cross contamination.
Opened cans of food should not be stored in the refrigerator as this could cause chemical contamination. The contents of the can should be placed in a suitable container preferably with a lid. The container should be covered using an alternative method if no lid is available, and placed in the refrigerator. It should then be labelled with what it contains and the date the contents were opened, together with the “use by” date.

This also applies to any foods whose original packaging is opened – for example cheese, cold meats, juices - the date of opening must be written on it, together with the “use by” date.

Freezers and refrigerators must not be overloaded - free circulation of air is important. Also, do not keep the door open any longer than is necessary as this will cause the temperature inside the refrigerator to rise.

Food which does not require freezing or refrigeration, such as packets and tins, should be stored in a clean, dry cool and well ventilated place.

Food should be stored on shelves, preferably at waist level and not on the floor. Where possible, heavy items should definitely be stored at waist level, to avoid the possibility of a manual handling injury.

Stock rotation of food is most important whether the food is stored in refrigerators, freezers or cupboards. This means not just putting new supplies at the front of shelves but bringing the older stock forward and putting new supplies behind it so that the oldest is used first.

Also remember to check food for “use-by” dates and to throw away any foods where this date has passed. This is a legal requirement.

If you are working in an individual’s own home you cannot throw away their food and you will have to deal with this situation very sensitively. If it causes concern for you, or the service user, you will need to speak with your manager or supervisor to discuss this.

Storage areas must be kept clean and tidy to deter pests such as mice, rats, flies and other insects. This means regular cleaning, and dealing with any spillages immediately.
Move all items regularly in order to check for any signs of infestation such as damaged packaging or animal droppings. Expert advice will need to be sought if a problem is found, and documentation will need to be kept of any pest control activities.

**Preparation**

When preparing food it is essential that you follow good hygiene practices in order to prevent or reduce the growth of harmful bacteria in food.

**What are bacteria?**

We have already said that bacteria are sometimes known as ‘germs’. They are microscopic organisms and can be found all around us. However they are not all harmful - most are harmless - and in fact some are essential.

BUT - There are a few bacteria which can spoil food and ultimately cause food poisoning, and you must do everything possible to prevent this from happening.

Bacteria cannot be seen, smelt or tasted.

They need the following conditions to enable them to grow and multiply:

- warmth
- food and moisture
- time

Given these conditions one bacterium can become seven billion within twelve hours, which shows how essential it is that we pay attention to good food hygiene practice when preparing food, to prevent this from happening.

Your own personal hygiene as a food handler is of utmost importance in preventing contamination of food.

We have already stressed the importance of good hand hygiene and it is essential that your hands are clean at all times when involved in the preparation of food.
All food handlers must wash their hands regularly and especially:

- on entering the kitchen
- after handling raw foods
- before handling cooked foods
- after emptying the bin
- after using the toilet
- before and after any contact with other people.

Hands should be washed and dried thoroughly with liquid anti-bacterial soap - not forgetting to wash between your fingers and the back of your hands. Dry carefully with a disposable towel and then remember not to touch the bin with your clean hands - the bin should be foot operated.

You could refer to the handout relating to effective handwashing - just to remind you.

There should be a separate basin in the kitchen specifically for hand washing which is not used for any food preparation. This is not always possible within the domiciliary care environment and you should therefore use any wash hand basin but not the kitchen sink.

Jewellery and nail varnish should not be worn during any food preparation.

Hair should be tied back if long enough and covered - don’t forget to wash your hands after you have touched your hair and do not do your hair in the kitchen.

- use soap preferably anti-bacterial, and place into palms of hands
- rub hands firmly together, to distribute soap
- rub your fingers together intertwining both hands
- then bring your fingers down into your palms (fist-like) again rubbing briskly
- wash each thumb separately and the backs and wrists of each hand
- pay particular attention to the base of the palms
- rinse thoroughly and dry well, preferably with disposable towels
- Wash hands before and after handling food and also if you are dealing with body fluids and of course, after you use the toilet.
- If you touch your hair or lick your fingers, you should always wash your hands immediately.
Protective clothing must be worn by all food handlers to prevent the risk of contaminating food from your own clothing. This must not be worn for any other activities and should not be worn outside the kitchen, or food preparation area.

Any cuts, spots or sores must be covered with a coloured waterproof dressing – this is so that the dressing can be seen easily should it fall off.

Coughing and sneezing spreads infection over a large distance, and therefore people with coughs and colds should not be involved in any handling of food.

Remember: “Coughs and Sneezes Spread Diseases”.

If you do cough when you are in a food preparation area, and cover your mouth with your hand you must immediately wash your hands thoroughly.

People who are ill should not be involved in any food preparation, this includes colds, skin diseases, any discharges from eyes or ears, and certainly diarrhoea or vomiting. You should inform your supervisor if you have any of these and you should not resume food handling duties without medical clearance.

As well as thinking about your own personal hygiene when working in the kitchen you should also think about the equipment you use.

Raw food and high risk foods should be prepared in different areas and different equipment used for each – such as chopping boards, knives, cloths etc. You should use different coloured chopping boards for different foods.

Currently these are:
RED for raw meat
YELLOW for cooked meat
BLUE for raw fish
GREEN for salad products and fruit products
BROWN for vegetable products
WHITE for dairy products and bakery products
This is not always possible in a domiciliary setting but you should ensure that a separate chopping board is kept for raw meat, and that all boards are washed and disinfected thoroughly after each use.

Raw food should be washed in a sink which is not used for washing equipment and utensils. Again this may not be possible in the domiciliary environment so you should take care to clean and disinfect the sink thoroughly after each activity.

Small equipment such as food processors and tin openers should be cleaned and disinfected regularly. Large equipment must also be cleaned regularly and should preferably be on wheels to ensure easy access for cleaning behind and underneath.

Remember to throw away dirty cleaning cloths – damp dirty cloths are an ideal breeding place for bacteria. You will again need to deal with this sensitively, if you are working in someone’s home, and suggest that in the interests of food hygiene and safety, the cleaning cloth is disposed of. You should not throw a cloth away without referring to the individual you are looking after – or failing that your supervisor or manager.

For best practice, it would be more appropriate to use disposable cloths.

This is the same with tea towels – make sure they are clean. If you are working in someone’s home, you should try to gently encourage the use of a clean tea towel. If a dirty tea towel is used to do the drying up, germs from the tea towel will be passed onto the plates and cutlery.

Pets should not be allowed into any food preparation area. In a domiciliary setting this can be difficult as most service users will usually allow their dog or cat access to the kitchen. However, whilst you are preparing food it will be necessary to shut pets out of the kitchen area, and you should deal with this situation sensitively with the person you are working with.
Cooking

As we stated earlier one of the conditions that bacteria need in order to multiply is warmth. The optimum temperature for their multiplication is 37 degrees centigrade, but they also multiply rapidly in temperatures from 5 degrees centigrade to 63 degrees centigrade, and this is known as ‘THE DANGER ZONE’.

What is The Danger Zone?

The Danger Zone is the temperature range within which bacteria multiply - from 5 degrees centigrade - 63 degrees centigrade

For this reason it is essential that all food is cooked thoroughly, to over 75 degrees centigrade, and kept at a temperature above 63 degrees centigrade, or stored below 5 degrees centigrade.

When cooking, temperatures above 75 degrees centigrade must be reached in the centre of the food, and a general guideline is to ensure that food is cooked to at least 75 degrees centigrade.

If you work, or have worked in Scotland, you may be aware that some guidelines are different and you should check these.

Microwaves

This guideline for temperature is particularly important when using a microwave oven as they do not heat food evenly - food which is hot in one place may still be cold in another place.

We are most of us very familiar with the Microwave oven in fact it is one of the most popular kitchen appliances in use in a kitchen today. Some individuals living in their own homes, may be unclear about how to use a microwave. They may be unfamiliar with the concept of how they work.
Microwave ovens do not heat food evenly and food which is hot in one place, may still be cold in another.

- You should always use oven-mitts or similar, when removing food from the microwave.

- Although the container may be cool, food heated in microwave ovens is very hot, - hot enough to cause scald burns.

- Liquids heated in a microwave oven may not turn into steam, even though they are very hot. Moving these containers of hot liquid or putting a utensil or other object into them creates a “steam bubble”, and the hot liquid may splash out, causing a scald burn.

- Liquids heated in a microwave are very hot, even if the container they are heated in is cool.

- It is ideal to let food cool for 60 seconds or more in the oven before removing it. Food hot enough to burn will cool down while remaining hot enough to enjoy.

If you prepare a “ready meal” you may be aware that it sometimes states on the packaging for example, “cook for three minutes on full power” – then stir thoroughly – then - “cook on full power for a further three minutes.” This is to make sure that the food is properly cooked through.

- We have included a handout – number two, relating to microwaves, which you may find useful.

Ideally, food temperatures should be checked with a probe thermometer which must be disinfected after each use. It is advisable to record these food checks for your own records. Your organization may have a policy and procedure in place which enables you to do this.
Serving

In your job you may need to sometimes keep food warm. If this is the case it must be kept above 63 degrees centigrade – remember “the danger zone.”

If food is not to be eaten immediately it must be cooled as quickly as possible - so that it does not remain in “the danger zone” for any length of time.

Large portions of food can be cooled more quickly by dividing it into smaller portions. When cool it should be put into the refrigerator and stored below 5 degrees centigrade – again remember “the danger zone.”

Storing below this temperature does not kill bacteria but keeps them dormant, this means they are just waiting to warm up and begin to multiply again.

Hot food must not be put into a refrigerator as this will raise the temperature of the refrigerator to a dangerous temperature at which bacteria will begin to multiply.

If you need to reheat food it is advisable that this is only done once. The food should then be eaten immediately or thrown away.

Any food that is left out should be covered at all times to prevent contamination. A common hazard in food premises is the fly. Flies are a nuisance, they will vomit and lay eggs on food which is left uncovered. If someone was to then eat that food, they could become ill.

You might like to look at handout number three at this stage – but be prepared!!!

Waste food and other debris should be stored in suitable bins. Bins in the kitchen area should be foot operated. This is so you can avoid touching the bin with your hands.

Bins should be emptied regularly and certainly at the end of each day and full “bin bags” should not be left in a food preparation area waiting to be disposed of.

After emptying the bin – remember to wash your hands.
Once you have looked at the various steps in your catering operation – in this case, buying, transporting, storing, preparation, cooking and serving – and identified the various hazards in each of those areas, it will be necessary to record your findings. You will then need to show what measures you will be taking to prevent these hazards from putting food at risk of infection. This can be done using a chart – an example of which is given as handout number four, within this training package.

This chart and other records such as temperature checks of refrigerators and freezers, temperature checks of food, and cleaning records, will all provide evidence that you are following good food hygiene rules and abiding by the law. You will therefore be able to enjoy your food in the knowledge that it is safe to eat!

But do remember, the commonest way that germs are spread are through people’s hands and by being aware of good hand hygiene the spread of M.R.S.A., Clostridium difficile, known as ‘C-dif’ and salmonella, can be reduced.

Washing your hands **properly and thoroughly**, is the single most important thing you can do to reduce the spread of infection.
Effective handwashing

- use soap preferably anti-bacterial, and place into palms of hands
- rub hands firmly together, to distribute soap
- rub your fingers together intertwining both hands
- then bring your fingers down into your palms (fist-like) again rubbing briskly
- wash each thumb separately and the backs and wrists of each hand
- pay particular attention to the base of the palms
- rinse thoroughly and dry well, preferably with disposable towels
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