COOKING

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It is also very important to handle ready-to-eat food carefully to protect it from harmful bacteria. This is because it will not be cooked or reheated before serving.

Do not forget that cooking does not remove allergens from food, so you need to handle food that contains allergens carefully.

This section includes information on cooking safely, foods that need extra care, reheating, hot holding and ready-to-eat food.

SAFE METHOD:

COOKING SAFELY

Thorough cooking kills harmful bacteria.

SAFETY POINT	WHY?
Where appropriate, follow the manufacturer's cooking instructions for food products.	The manufacturer has tried and tested safe cooking methods specifically for its products.
Preheat equipment such as ovens and grills before cooking.	If you use equipment before it has preheated, food will take longer to cook. This means that recommended cooking times in recipes or manufacturer's instructions might not be long enough.
Do not let raw food touch or drip onto cooked food e.g. when adding food to the grill/barbecue. Never use the same utensils, plates or containers for raw and cooked or ready-to-eat food. It is a good idea to fully cook poultry in an oven first, then finish it on the barbecue. If you are using left over marinade as a sauce, make sure it is cooked until steaming hot.	Raw food can carry harmful bacteria, which could spread onto cooked food and stop it being safe. This will make sure that the poultry is cooked thoroughly. Juices should be clear, with no pink or red in them. Marinades can carry bacteria from the raw meat or poultry, if not cooked thoroughly.
If you serve beef or lamb rare (whole cuts such as steaks and whole joints only), make sure all of the outside surfaces are fully cooked, e.g. by sealing in a pan. 	This will kill harmful bacteria on the outside of the meat. Pork and rolled joints should not be served rare.
Liver and offal must be cooked all the way through. When preparing dishes, such as liver pâté or parfait, the liver should be cooked until there is no pink meat left. 	Harmful bacteria can be found in the centre of liver as well as the outside.
Turn meat and poultry during cooking. 	This helps it cook more evenly and thoroughly.
Make sure liquid dishes, e.g. gravy, soups, sauces and stews, are simmering and stir them frequently. 	This is to make sure the food is hot enough to kill bacteria. Stirring will help make sure the food is the same temperature all the way through.

CHECK IT – USE THESE CHECKS TO TELL IF FOOD IS PROPERLY COOKED.

Check that whole birds are cooked through thoroughly in the thickest part of the leg. The meat should not be pink or red.

The juices should be clear and not have any pink or red in them. It is a good idea to cook stuffing separately.

The largest piece of meat in stews, curries etc. should be steaming hot all the way through with no pink or red.

Check that whole cuts of pork and processed meat products, such as sausages and burgers, are steaming hot all the way through with no pink or red in the centre.

Check that combination dishes (e.g. contains meat and vegetables) are steaming hot in the centre. If you are cooking a large dish or batch, check in several places.

Check that liquid dishes bubble rapidly when you stir them.

Check that all the outside surfaces of whole cuts of meat and whole joints (beef or lamb) are fully cooked.

To check fish is cooked through cut into the centre of fish, or by the bone if there is one, to check that the colour and texture has changed. Tuna steaks can be served 'rare' as long as they have been fully seared on the outside.

To check a pork joint or rolled meat joint, insert a skewer into the centre until juices run out. The juices should not have any pink or red in them.

WHAT TO DO IF THINGS GO WRONG

- Cook the food for longer.
- Speed up the cooking process, for example by dividing the food into smaller quantities, or using different equipment.

HOW TO STOP THIS HAPPENING AGAIN

- Review your cooking method. You might need to increase the time or temperature, or use different equipment.
- Train staff again on this safe method.
- Improve staff supervision.
- Repair or replace equipment.

Write down what went wrong and what you did about it in your diary.

SAFE METHOD:

FOODS THAT NEED EXTRA CARE

Some foods need to be treated with extra care to make sure they are safe to eat.

Remember that raw food is often the main source of bacteria in the kitchen. Follow the advice in the 'Cooking safely' safe method on how to cook these foods. You should also take care with the following foods.

SAFETY POINT	WHY?	HOW DO YOU DO THIS?
Eggs Cook eggs and foods containing eggs thoroughly until they are steaming hot.	Eggs can contain harmful bacteria. If you cook them thoroughly this kills any bacteria.	List the dishes containing eggs that you prepare or cook. Some salads
Use pasteurised egg (not ordinary eggs) in any food that will not be cooked, or only lightly cooked e.g. mayonnaise and mousse.	Pasteurisation also kills bacteria, which is why pasteurised egg is the safest option.	
Do not use eggs after the 'best before' date. Make sure you rotate stock and use the oldest eggs first. Buy eggs from a reputable supplier. Store eggs in a cool, dry place.	After this date, there is a greater chance of harmful bacteria growing in the eggs. 	Do you cook eggs and food containing eggs thoroughly until they are steaming hot? Yes ✓ If not, what do you do?
Rice When you have cooked rice, make sure you keep it hot until serving or chill it down as quickly as possible and then keep it in the fridge. You can make rice chill down more quickly by dividing it into smaller portions, spreading it out on a clean tray, or running it under cold water (make sure the water is clean and drinking quality).	Rice can contain spores of a type of harmful bacteria that may not be killed by cooking or reheating. If cooked rice is left at room temperature, spores can multiply and produce toxins that cause food poisoning. Reheating will not get rid of these	How do you keep rice hot before serving? Rice is cooked and held hot in a Rice cooker designed for this purpose If you chill down rice how do you do this? Boiled rice under running water and then refrigerated
Pulses Follow the instructions on the packaging on how to soak and cook dried pulses, such as beans. 	Pulses can contain natural toxins that could make people ill unless they are destroyed by the proper method of soaking and cooking. Tinned pulses will have been soaked and cooked already.	Do you follow the manufacturer's instructions when cooking pulses? Yes ✓ If not, what do you do?

SAFETY POINT	WHY?	HOW DO YOU DO THIS?
Shellfish Make sure you buy shellfish from a reputable supplier. Keep the packaging for 60 days, after opening.	If you do not use a reputable supplier, you cannot be confident that shellfish have been caught and handled safely. It is a legal requirement to keep labels for 60 days to trace suppliers, if needed.	
Crabs, crayfish, lobster and scallops should be prepared by someone with specialist knowledge.	Some parts of these shellfish cannot be eaten and some are poisonous, so it is important to know how to remove these parts safely.	If you prepare crabs, crayfish, lobster and scallops, are these prepared by someone with specialist knowledge? Yes ☑ If not, what do you do?
Shellfish such as prawns and scallops will change in colour and texture when they are cooked. For example, prawns turn from blue-grey to pink and scallops become milky white and firm. Langoustines (also called scampi or Dublin Bay prawns) are pink when raw and the flesh becomes firm and pink-white when they are cooked. If you use ready-cooked (pink) prawns, serve them cold or reheat them until they are piping hot all the way through.	 	List the types of shellfish you serve or use as an ingredient. Prawns
Before cooking mussels and clams, throw away any with open or damaged shells.	If the shell is damaged or open before cooking, the shellfish might not be safe to eat.	
To check that a mussel or clam is cooked, make sure the shell is open and that the mussel or clam has shrunk inside the shell. If the shell has not opened during cooking, throw it away.		
Fish Make sure you buy fish from a reputable supplier. If you buy fresh fish make sure you store it between 0°C and 4°C. If you buy frozen fish then keep it frozen until you are ready to use it.	Certain types of fish, such as mackerel, tuna, anchovies and herrings, can cause food poisoning if not kept at the correct temperature.	

SAFE METHOD:

REHEATING

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

SAFETY POINT	WHY?
Make sure you use equipment that reheats/cooks food effectively and follow the equipment manufacturer's instructions.	If equipment is not suitable for reheating, or is not used properly, the food might not get hot enough to kill bacteria.  
Preheat equipment such as ovens and grills before reheating.	Food will take longer to reheat if you use equipment before it has preheated. This means that recommended reheating times in recipes or manufacturer's instructions might not be long enough.
If you are reheating food in a microwave, follow the product manufacturer's instructions, including advice on standing and stirring. If you use a microwave to reheat food that you have cooked yourself, it is a good idea to stir it at stages while reheating.	The manufacturer has tested its instructions to make sure that products will be properly reheated. Standing and stirring are part of the process of cooking/reheating in a microwave and help make sure the food is the same temperature all the way through. When food is microwaved, it can be very hot at the edges and still be cold in the centre – stirring helps to prevent this.
Serve reheated food immediately, unless it is going straight into hot holding.	If food is not served immediately, the temperature will drop and harmful bacteria could grow. 

THINK TWICE!

Remember, reheating means cooking again, not just warming up. Always reheat food until it is steaming hot all the way through (you should only do this once). Do not put food into hot holding without reheating it properly first.

CHECK IT

Check that reheated food is steaming hot all the way through.

YOUR CHECK	TYPES OF DISH
If you use a different check, you will need to prove that it is safe. See the 'Prove it' safe method in the Management section. Give details of your check here:	Food temperatures are checked and recorded in the Prove It section of the file.
	All

WHAT TO DO IF THINGS GO WRONG

- If the equipment seems to be working, reheat the dish for longer and then test it again.
- Speed up the reheating process by using smaller portions.

HOW TO STOP THIS HAPPENING AGAIN

- Check your equipment is working correctly.
- Review your reheating method – you may need to increase the time and/or temperature, use different equipment or change the size of portions.
- Train staff again on this safe method.
- Improve staff supervision.

Write down what went wrong and what you did about it in your diary.

SAFE METHOD:

CHECKING YOUR MENU

It is important to show how you check that dishes on your menu are properly cooked.

HOW TO USE THIS SHEET

This sheet is for you to show how you check key cooked dishes. It focuses on types of dish where proper cooking is essential to kill harmful bacteria. Before you start, make sure you have read the 'Cooking safely' and 'Foods that need extra care' safe methods.

Different checks are suitable for different types of dish. For each type of key cooked dish on your menu, choose a check from the list below and write the type of dish next to the appropriate check.

You do not need to write down eggs and pulses, these are covered by the 'Foods that need extra care' safe method. Also fruit and vegetables and ready-to-eat food are included in the 'Ready-to-eat food' safe method.

CHECK		TYPES OF DISH
If you serve beef or lamb rare (whole cuts such as steaks and whole joints only), make sure all of the outside surfaces are fully cooked.		e.g. steaks, leg of lamb Yes
Check that whole birds are cooked through thoroughly in the thickest part of the leg. The meat should not be pink or red and the juices should be clear and not have any pink or red in them.		e.g. roast chicken, turkey Yes
Check that rolled meat joints, whole cuts of pork and processed meat products, such as sausages and burgers, are steaming hot all the way through with no pink or red in the centre.		e.g. sausages, pork chops, rolled joint Yes
Check that livers and offal are cooked thoroughly. When preparing dishes such as liver pâté or parfait, the liver should be cooked through and should not be pink inside.		e.g. fried liver, pâté, parfait Yes
Check that liquid dishes bubble rapidly when you stir them.		e.g. gravy, soup, sauces, stews Yes
Cut into the centre of fish, or by the bone if there is one, to check that the colour and texture has changed and the fish is cooked through.		e.g. salmon, cod Yes

CHECK		TYPES OF DISH
The largest piece of meat in stews, curries, stir-fries etc. should be steaming hot all the way through with no pink or red.		e.g. curries, casseroles Yes
Check that combination dishes (e.g. contains meat and vegetables) are steaming hot in the centre.		e.g. lasagne, fish pie Yes
Check that shellfish such as prawns have changed in colour and texture.		e.g. prawns in garlic butter Yes
To check that a mussel or clam is cooked, make sure the shell is open and the mussel or clam has shrunk inside the shell.		e.g. moules marinière Yes

STEAMING HOT	TYPES OF DISH
Make sure food is steaming hot all the way through. You should use this check: • when reheating food • when you cannot find another suitable check for one of your dishes	

PROBES		TYPES OF DISH
You could also use a temperature probe to check that dishes are properly cooked or reheated. See the 'Prove it' safe method in the Management section.		A chisel probe is used to complete the Prove It checks

YOUR CHECK		TYPES OF DISH
If you use a different check, you will need to prove that it is safe. See the 'Prove it' safe method in the Management section. Give details of your check here:		

If your menu changes substantially, you may need to fill out this sheet again. You can download another copy from **food.gov.uk/catering**

SAFE METHOD:

HOT HOLDING

It is very important to keep food hot until serving to prevent harmful bacteria from growing.

SAFETY POINT	WHY?	HOW DO YOU DO THIS?
If you need to keep food hot before serving, you should use suitable equipment.	It is difficult to hold food at a consistent, safe temperature without suitable equipment. **Bain-marie**  **Soup kettle** 	Do you hot hold? Yes ☑ No ☐ What equipment do you use? A warming cabinet and Bain-Marie is used to hold cooked food above 63*C.
Preheat hot holding equipment before you put any food in it.	Putting food into cold equipment means it might not be kept hot enough to stop harmful bacteria growing.	
Food must be cooked thoroughly and steaming hot **before** hot holding begins.	Hot holding equipment is for hot holding only. It should not be used to cook or reheat food. 	Do you do this? Yes ☑ No ☐

THINK TWICE!

Hot food must be kept at 63°C or above, except for certain exceptions.

When you display hot food, e.g. on a buffet, you should use suitable hot holding equipment to keep it above 63°C. If this is not possible, you can take food out of hot holding to display it for up to two hours, but you can only do this once.

Food that has not been used within two hours, should either be reheated until it is steaming hot and put back in hot holding or chilled down as quickly as possible to 8°C or below. If it has been out for more than two hours throw it away. Remember to keep the food at a safe temperature until it is used.

If you do take food out of hot holding to display it, remember not to mix new food with the food that is already on display. This could lead to the older food being left out for too long.

CHECK IT

Make sure food is steaming hot all the way through from the moment it is cooked to the moment it is served.

If you do not do this, what do you do?

WHAT TO DO IF THINGS GO WRONG

If a dish is not hot enough at any point during hot holding:

- reheat it until it is steaming hot and put back into hot holding (you should only do this once)
- or chill down the food safely (see the 'Chilling down hot food' safe method in the Chilling section) and reheat it later before serving.

If you cannot do either of these things, throw the food away.

Remember that some foods need extra care. See the 'Foods that need extra care' safe method.

HOW TO STOP THIS HAPPENING AGAIN

- Check your equipment is working correctly.
- Review your hot holding safe method. Try using a higher temperature setting or smaller quantities of food.
- Train staff again on this safe method.
- Improve staff supervision.

Write down what went wrong and what you did about it in your diary.

PROVE IT

If you would like extra reassurance that food in hot holding is hot enough, you can use a temperature probe as a one-off test to prove that your method keeps food at a safe temperature. (See the 'Prove it' method in the Management section for advice on using probes safely.)

SAFE METHOD:

READY-TO-EAT FOOD

It is important to handle ready-to-eat food safely to protect it from harmful bacteria and allergens.

Ready-to-eat food is food that will not be cooked or reheated before serving. This includes salads, cooked meats, smoked fish, desserts, sandwiches, cheese and food that you have cooked in advance to serve cold.

SAFETY POINT	WHY?	HOW DO YOU DO THIS?
When preparing and handling food, you should: • keep ready-to-eat food completely separate from raw meat, poultry, fish, eggs and unwashed vegetables • make sure work surfaces, chopping boards, knives etc. are clean (and disinfected if you have prepared raw food) • Ideally, use separate chopping boards and utensils for ready-to-eat food • keep ready-to-eat food covered at all times during preparation and storage.	This protects food from harmful bacteria and allergens. This is especially important for ready-to-eat food because it will not be cooked or reheated before serving. It also helps keep allergens from spreading. 	List the types of ready-to-eat food you use and how you handle them: Salads Breads
Follow the manufacturer's instructions on how to store and prepare the food, if these are available.	The manufacturer's instructions are designed to keep the food safe.	Are you confident that you do this for all ready-to-eat food where instructions are available? Yes ☐
When preparing fruit, vegetables and salad ingredients: • peel, trim, or remove the outer parts, as appropriate • wash them thoroughly by rubbing vigorously in a bowl of clean water • wash the cleanest ones first Wash your hands before and after handling fruit and vegetables. If you have prepared vegetables that have dirt or soil on the outside, clean and then disinfect chopping boards and work surfaces before preparing other food.	The dirt on vegetables and salad ingredients can contain harmful bacteria. Peeling and washing helps to remove the dirt and bacteria.   	Do you do this? Yes ☑ If not, what do you do?

SAFETY POINT	WHY?	HOW DO YOU DO THIS?
Make sure you keep ready-to-eat food cold enough. See 'Chilled storage and displaying chilled food' in the Chilling section. Do not use ready-to-eat food after the 'use by' date, if there is one. For food you have prepared, or removed from its original packaging, you should have a method of keeping track of when food should be used or thrown away.	If these types of food are not kept cold enough, harmful bacteria could grow. You should never use food that has passed its 'use by' date because it might not be safe to eat.	Do you do this? Yes ✓ If not, what do you do?
If you slice cooked meat: • make sure you follow the manufacturer's instructions when you clean the slicer • avoid handling the meat as much as possible – it is a good idea to use clean tongs or slice meat straight onto a plate	Meat slicers need careful cleaning and disinfecting to prevent dirt building up and to stop harmful bacteria growing, in particular on the slicing blade. Hands can easily spread harmful bacteria onto food.	Are staff trained how to clean the meat slicer properly, or supervised? Yes ☐ No ☐

WHAT TO DO IF THINGS GO WRONG	HOW TO STOP THIS HAPPENING AGAIN
• If you think that a food delivery has not been handled safely, reject the delivery. • If ready-to-eat vegetables, fruit or salad ingredients have not been washed properly, wash them following the advice on the first side of this Safe method and clean any work surfaces etc. they have touched. • If ready-to-eat food has been prepared on a work surface or with a knife that has been used for raw meat, poultry, fish, eggs or unwashed fruit and vegetables, throw the food away. • If ready-to-eat food has not been chilled safely, throw the food away.	• If you do not think a supplier handles food safely, consider changing to a new supplier. • Review the way you receive deliveries. • Review the way you store and prepare ready-to-eat food. • Train staff again on this safe method. • Improve staff supervision.

THINK TWICE!

You should not use the same equipment, such as vacuum packing machines, slicers and mincers, for both raw and ready-to eat food. These are complex pieces of machinery with lots of moving parts and it is very difficult to clean them sufficiently, so bacteria from raw food could easily be transferred to ready-to-eat food.

If you are preparing both raw and ready-to-eat food, you should make sure where possible this is done in separate clean and disinfected areas. If this is not possible, surface and utensils used must be thoroughly cleaned and then disinfected between tasks.

Make sure staff wash their hands thoroughly between tasks, especially when working with raw and ready-to-eat food. This stops bacteria and allergens being spread onto foods, surfaces and equipment.

Write down what went wrong and what you did about it in your diary.

SAFE METHOD:

ACRYLAMIDE

It is important not to over-cook certain foods

WHAT IS ACRYLAMIDE?

Acrylamide is a chemical that is formed naturally when some foods are cooked at high temperatures (above 120ºC) such as by frying, roasting, baking, grilling and toasting.

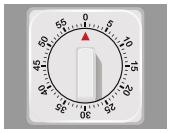
Legislation is in place to reduce acrylamide levels in food, as it has the potential to cause cancer in humans.

WHAT FOODS?

If you cook the following types of foods, you should put in place practical steps to reduce acrylamide.

Raw potato products such as chips, French fries, other cut (deep-fried) and sliced potato crisps made from fresh potatoes, including potatoes that are deep fried and finished in the oven.	**Bread products** such as loaves, bread rolls and baguettes, toast and toasted sandwiches.	**Sweet bakery products** such as cookies, biscuits, scones, gingerbread, wafers, crumpets.	**Savoury bakery products** such as crackers, crisp bread, breadsticks.

SAFETY POINT	WHY?	TICK IF YOU DO THIS
Purchasing, receipt and storage		
 When buying raw potatoes ask your supplier for advice on the best variety to use for the type of cooking you are doing.	Certain potato varieties are lower in natural sugars and using these will help to keep acrylamide levels lower.	✓
Store raw, unpeeled potatoes that are going to be fried, baked or roasted in a cool, dark place, above 6ºC. Do not store in the fridge.	Potatoes stored in the fridge can form more sugars, which can mean higher levels of acrylamide when the food is cooked.	✓
When buying cooked products from a supplier tell them you will not accept over-baked or burnt products.	Check deliveries and reject products that are over-baked or burnt as these will have higher levels of acrylamide.	✓
Ask your cooking oil supplier for advice on the best oil to use for the type of cooking you are doing.	Cooking foods in the right oil for the type of cooking will help foods to fry quicker and keep acrylamide levels lower.	✓
Preparation		
Cut foods, such as potatoes, to similar sizes.	This will help all foods to cook more evenly.	✓
Where possible, when making home-made chips, or cut potatoes that are going to be deep-fried, follow **one** of these steps:		
Soak (for 30–180 mins) in cold water after cutting. Rinse with clean water and drain.	These steps will remove excess sugars and help to keep acrylamide levels lower. 	☐
Or - Soak for a few minutes in warm water. Rinse with clean water and drain.		☐
Or - blanch potatoes before cooking.		✓
Where possible, and when the preparation process allows, when making bread or dough products follow this step:		
Extend the yeast fermentation time.	This will help to keep acrylamide levels lower in the finished product.	✓

SAFETY POINT	WHY?	TICK IF YOU DO THIS
Cooking		
Cook foods to a golden yellow, or lighter colour		
Where appropriate, follow the manufacturer's cooking instructions for food products.	The manufacturer has tried and tested cooking methods specifically for its products.	✓
Deep-fry potato products, such as chips and French fries to a golden yellow, or lighter colour. The oil temperature for cooking should ideally be below 175ºC.	Cooking to a golden yellow, or lighter colour, and deep-frying at lower temperatures will keep acrylamide levels low.	✓
When deep-frying take care not to over-fill baskets. Fill the basket only half way. 	This will help the foods to cook more evenly.	✓
Keep cooking oil quality at its best by skimming often to remove crumbs and food particles left in the oil.	This will prevent crumbs and food particles left in the oil from burning and will keep the oil quality for longer.	✓
Filter, change oils and clean cooking equipment as often as needed or as recommended by suppliers.	Reusing old, dirty oil and cooking equipment will increase the levels of acrylamide in deep-fried foods.	✓
When baking bread and sweet or savoury bakery products cook to a golden yellow, or lighter colour. Use the lowest oven temperature possible for the food.	Baking foods to a golden yellow, or lighter colour, and at lower oven temperatures will reduce acrylamide levels.	✓
When cooking foods such as toast and toasted sandwiches do not over-toast or burn.	Cooking bread to a golden colour, or lighter, will help to keep acrylamide levels lower.	✓
 Where possible, set a timer to mark the cooking time. This could be on the oven or fryer or you can use a separate timer.	This will remind you to remove foods at the right time to prevent foods from becoming over-cooked or burnt.	☐

THINK TWICE!

Over-cooking or burning certain foods means that these foods can be higher in acrylamide.

Colour charts

Some suppliers have produced colour charts to show what colour is the best for certain foods to keep acrylamide levels low. You can ask if your supplier has these available. You do not have to use colour charts, but they can be useful for training your staff. **Colour charts for fries can be found at: http://goodfries.eu/en/**

WHAT TO DO IF THINGS GO WRONG	HOW TO STOP THIS HAPPENING AGAIN
• Dispose of foods that are over-cooked or burnt.	• Review your cooking method. • You might need to lower the cooking temperature or use different equipment. • Train staff again on this safe method. • Improve staff supervision. • Repair or replace equipment that is broken or not working.

Write down what went wrong and what you did about it in your diary.