

A hazard to food is anything with the potential to cause harm. Food hazards can be categorised into three different types:

- Microbiological
- Chemical
- Physical (foreign bodies)

- Microbiological hazards include pathogenic bacteria, viruses, moulds and yeasts.
- A small number of bacteria known as **SPOILAGE BACTERIA** cause food to spoil or become unfit to eat, food will smell or be slimy. Other bacteria such as food poisoning bacteria are known as **PATHOGENS** have no effect on food and cannot be seen.
- These are dangerous as they can cause food poisoning or food-borne diseases and should be prevented from entering food items.
- Bacteria are everywhere and can therefore be difficult to control.
- Places where food is prepared are ideal for bacteria to grow.
- Effective cooking is essential to make sure that pathogens are destroyed.
- Food must be cooked at the right temperature and for enough time otherwise harmful bacteria may survive the cooking process.

- Chemical hazards found in food include cleaning substances, pesticide residues- on items such as fruit and vegetables- and bait used to kill pests, poisonous plants and wild mushrooms.
- All these substances may cause problems such as:
 - **Making food taste unpleasant**
 - **Skin irritation**
 - **A burning sensation**
 - **Sickness**
 - **Long-term damage to body.**
- You must also make sure that toxic chemicals, e.g. cleaning fluids, do not get into food after it has been cooked and while it is being stored.

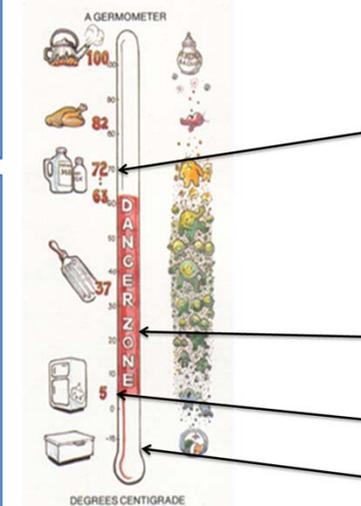
- Physical hazards are none food items that are present in food.
- In large factories where there are many production lines operating with each one carrying different food types.
- There is a risk that food items or even pieces of machinery could fall off one production line and land on another.
- This could result in cross contamination; for example, whole nuts could end up in a product marked as containing 'no nuts'. If a customer has a nut allergy then they could have an allergic reaction.

High-risk foods are foods that are more likely to give you food poisoning. Bacteria grow quickly in them because they're moist and high in protein.

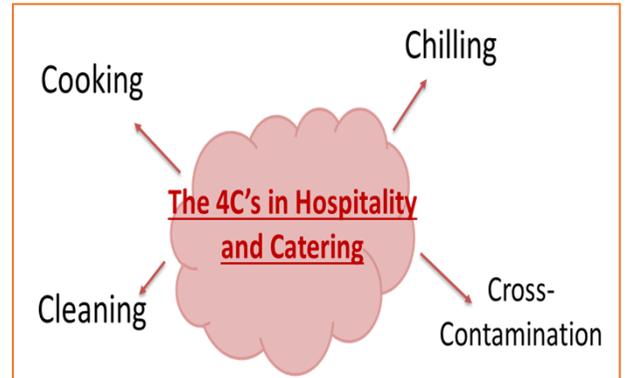
- High-risk foods include:**
- Meat, fish and poultry.
 - Dairy products and eggs.
 - Gravies, stocks and sauces.
 - Shellfish and other seafood.
 - Cooked rice (not high in protein but still a high risk food).

High-risk foods have a **short shelf life**. This means they can't be kept for **long** because the bacteria in them will multiply to **dangerous levels**. High-risk foods should be stored in **fridges**.

- All food should be handled with care. When handling high risk foods it is important to...
- Avoid touching the food by hand, use utensils whenever possible.
 - Keep raw and high risk foods apart.
 - Cover the food during storage, to prevent bacterial contamination.
 - Keep foods outside the danger zone temperatures whenever possible during preparation, service or sale- to prevent bacterial multiplication to levels that cause food poisoning.



Year 9- Autumn Term- Knowledge Organiser.



Food must be reheated to **75 degrees** or higher **in the middle**. Temperatures this high **kill** most bacteria.

Food must be cooked first time round and **hot-held** at **63 degrees** or higher. It is often better to cook food to reach 75 degrees to ensure minimal risk.

Bacteria **multiply most rapidly** between **5degrees** and **63degrees**. This is the temperature **danger zone**. Food should spend **no more than 90 minutes** in the danger zone.

Food should be stored **chilled** at **5 degrees** or lower.

Food must be stored **frozen** at **-18degrees** or lower. Where it becomes too **cold** for bacteria to **multiply**.

The Danger Zone

High risk and perishable foods should be kept out of the danger zone temperatures of 5oc and 63oc as much as possible. Foods are likely to be at danger zone temperatures when they are:

- Left standing in a room
- Left in sunlight, for instance in a shop window
- Heated slowly
- Cooled slowly

Food is also likely to be in the danger zone when hot and cooler foods are combined- for instance, when a hot sauce is poured on cold food, or hot foods are 'topped up'.

It is important to remember the basic rules:

- Do not keep foods at temperatures in the danger zone for any longer than strictly necessary.
- Keep cold foods really cold.
- Keep hot foods really hot.

INFORMATION ON FOOD POISONING

Campylobacter

Found in – Meat, poultry, raw milk, untreated water, chicken

Affects: all ages

Symptoms: diarrhoea, flu, headache, fever, abdominal pain.

Onset – 2-5 days

Duration of illness – 7-10 days.

E-Coli

Found in – sewage, soft cheese, minced beef and chicken

Affects: particularly – infants and people who have been to underdeveloped countries.

Symptoms: diarrhoea, nausea, abdominal pain

Onset – 12-24 hours

Duration of illness – 1-5 days

Staphylococcus

Found in – meat, meat products, poultry, salad

Affects: all age groups

Symptoms: diarrhoea, vomiting, abdominal pain

Onset – 1-7 hours

Duration of illness – 6-24 hours

Listeria

Found in – Pasteurised and raw milk, cheese, soft ice cream

Affects: particularly – pregnant women, unborn babies, diabetics

Symptoms: diarrhoea, flu, vomiting, nausea, may cause abortion, still birth, meningitis, septicaemia

Onset – 1-79 days

Duration of illness – Unknown.

Clostridium

Found in – Meat, meat products and gravy

Affects: all ages especially elderly, infants, immune

Symptoms: diarrhoea, abdominal pain.

Onset – 8-22 hours

Duration of illness – 12-24 hours

Salmonella

Found in – raw meat, poultry, eggs, milk

Affects: particularly – pregnant women, infants, elderly

Symptoms: diarrhoea, vomiting, fever, headache, abdominal pain

Onset – 6-48 hours

Duration of illness – 1-8 days.



Protective Clothing



No food or drink in area



Food Preparation Area



Slippery Surface



No Smoking



Wash Hands



Fire Hose



Fire Blanket



First Aid Kit



Emergency Exit this way



Hot Surface or Hot Water

Employers and workers have **rules** to follow to keep everyone **safe** and **healthy**.

Health and Safety at Work Act

1. The Health and Safety at Work Act (**HASAWA**) is a law.
2. It was created to **protect** people at **work**.
3. It gives **rules** that **employers** need to follow. For example, they must make sure that:
 - The workplace is **safe**, **well lit** and not too **hot** or too **cold**.
 - Workers are properly **trained**.
 - **Equipment** is safe to use.
 - There's a **fire policy** in place.
 - **First aid** available.
4. **Staff** also have to look after their **own** health and safety, and not put **others** at risk.

Other ways to stay safe

1. The **floor**-things should not be left in the way and spills should be cleaned up quickly.
2. **Clothing**- staff should not have baggy sleeves.
3. **Footwear**- staff should wear non-slip shoes with steel toe caps.
4. Staff must **concentrate** on what they're doing and follow instructions.

Fire Procedure

When there's a fire, the **fire procedure** should be followed in the **correct order**:

- Sound the **alarm** and call the **fire service**.
 - **Turn off** the **gas** and **electricity** supply if possible.
 - Try to **put out** the fire if its safe to do so.
 - **Leave** the building and go quickly to the agreed **meeting place**, closing doors and windows where possible on way out.
 - People should **NOT** go back into the building until told to do so.
- Establishments also need to ensure regular **fire drill** take place.

Yellow triangle with black symbol- a **WARNING** sign.

Blue circle with white symbol- a **MANDATORY** (must do) sign.

Red circle with diagonal line through it and black symbol- a **PROHIBITION** (don't do) sign.

Green square or rectangle with white symbol- an **EMERGENCY** sign.

Red square or rectangle with a white symbol – a **FIRE** sign.

1. **First aid** is the **first medical care** a person gets when they're hurt.
2. By **law** there must be **one first aid kit** and **one person** who's responsible for **first aid** in every workplace.
3. First aid kits should be **easy to get to** and contain **important** first aid items- for example, rubber gloves, plasters and bandages.

Burns and Scalds

1. **Dry heat** causes a **burn**, for example a hot oven-tray.
2. **Wet heat** causes a **scald**, for example boiling water.
3. The injured area should be run under **cold water** for at least **10 minutes** or until it **stops stinging**.
4. Lotions and creams **shouldn't** be put on the injury.
5. Burns caused by **hot fat** can be dangerous. Immediate **medical help** is needed for anyone burnt by hot fat.

Falls

1. If someone's **badly hurt** after a fall they **shouldn't be moved**. It might make the injury **worse**.
2. If they're not badly hurt but **cant get up**, they should be put into the **recovery position**.
3. If they can get up, the person should be helped to **sit**, then **stand up slowly**.
4. If someone feels **faint**, they should sit with their **head down** between their **knees**.

Cuts

1. Cuts should be **washed** and **dried**. Then a **blue detectable plaster** can be put over the cut.
2. If the cut **keeps bleeding**, the cut area should be held **above the level** of the persons heart and **squeezed**.