

5 Keys to Food Safety

Practical Tips for the Trade



Centre for Food Safety

Risk Communication Section

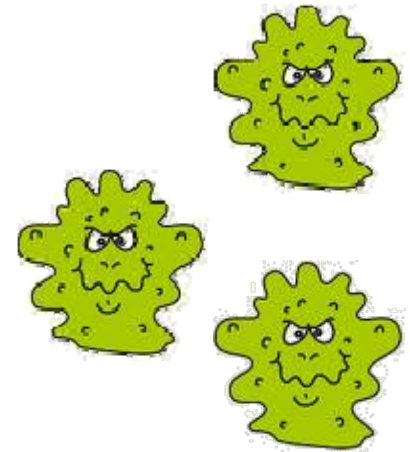
Content

- **What is Foodborne Disease?**
- **Symptoms, causes and contributing factors of Foodborne Disease**
- **What are the 5 Keys to Food Safety?**
- **How to apply the 5 Keys to Food Safety**
 - Purchase
 - Store
 - Prepare
 - Cook
 - Transport and Serve



What is Foodborne Disease?

- **Sickness caused by food that people eat**
- **Causes**
 - dangerous microorganisms and/or
 - toxic chemicals

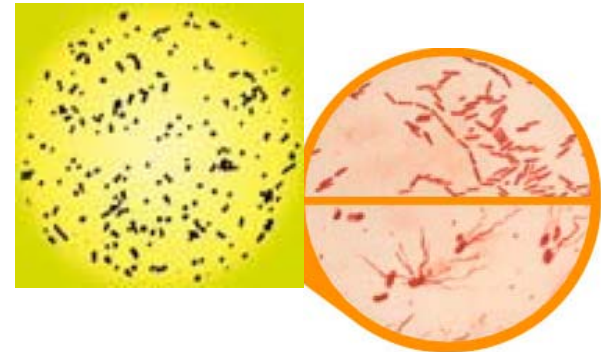


Common symptoms of Foodborne Disease

- Most symptoms occur in **24 to 72** hours after eating
 - stomach pains
 - vomiting
 - diarrhoea, etc
- Most symptoms are mild
- Some diseases may severely affect **infants, pregnant women, elderly** and **the sick**

What are the causes locally?

- In the past five years (2003-2007)
 - about **90%** of food poisoning cases were caused by **bacteria** and **viruses**
- In 2006, the top four commonest dangerous microorganisms
 - *Vibrio parahaemolyticus* (40%)
 - *Salmonella* species (19%)
 - *Staphylococcus aureus* (19%)
 - **Noroviruses** (15%)



Local contributing factors

- In 2006, the top three contributing factors
 1. **inadequate cooking (38%),**
 2. **contamination by raw food (15%)**
 3. **poor personal hygiene of food handlers (14%)**
- More than half (64%) of the foodborne diseases occurred at **food premises**

What are the 5 Keys to Food Safety?

- **Advocated by the World Health Organization to prevent foodborne diseases**



1. **Choose (Choose safe raw materials)**
2. **Clean (Keep hands and utensils clean)**
3. **Separate (Separate raw and cooked food)**
4. **Cook (Cook thoroughly)**
5. **Safe Temperature (Keep food at safe temperature)**

5 Keys to Food Safety in Daily Operation

- Purchase
- Store
- Prepare
- Cook
- Transport and serve



Purchase - CHOOSE(1)

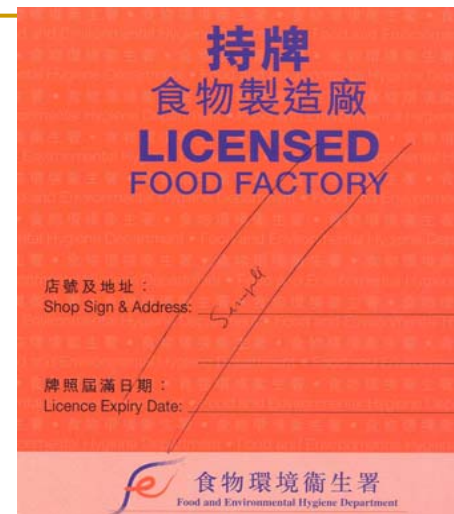
- Obtain food and food ingredients from **approved** and **reliable** sources

- confirm that the suppliers have obtained relevant and valid licences from the **Food and Environmental Hygiene Department (FEHD)**

Please visit

<http://www.fehd.gov.hk/licensing/licence-type.html>

- **don't** buy food from **illegal** or **questionable** source, e.g. food of unreasonably low price or meat with abnormal red colour



Purchase - CHOOSE(2)

- Use **fresh** and **wholesome** food ingredients and check the quality of the ingredients upon receipt
 - fruits or vegetables are **not damaged** and **without bruised areas**
 - canned foods are **not bulging or dented**
 - jars are **not cracked or have loose lids**
 - eggs in the carton are **not cracked or leaking**

- Food or food ingredients are stored at **safe temperature**
 - **hot foods at above 60°C**
 - **cold foods at or below 4°C**
 - **frozen foods at or below -18°C**



Purchase - CHOOSE(3)

- Do not use food beyond its expiry date
- Read food labels carefully and follow instructions
- Choose food before its expiry date
 - “use by” date
 - “best before” date
- Label and check the storage time of the food in the refrigerator
- Stick to the **first-in-first-out** principle for food storage

READ THE FOOD LABELS



Purchase - CHOOSE(4)

Difference between “use by” and “best before” date

	“use by” date	“best before” date
Example of Food	A cup of ice-cream	A pack of biscuit
Example of Expiry Date	1-1-2008 If the food is properly stored, it is recommended for use on or before 1-1-2008	1-1-2008 If the food is properly stored, it can be expected to retain its specific properties on or before 1-1-2008
Recommendations after the Expiry Date	Usually, the food is highly perishable. If you consume it after the date, there is a chance that you will suffer from foodborne disease	If you consume it after the date, the food may not be at its best flavour and quality

Store - SAFE TEMPERATURE



- Refrigerate cooked and perishable food **within 2 hours**
- Check and record the **temperature of the refrigerator** with a thermometer and ensure
 - fridge is at or below 4°C
 - freezer is at or below -18°C
- Don't overstuff the refrigerator

Store - SEPARATE

- Ideally, use **two separate refrigerators** for storing raw food and cooked or ready-to-eat food
- If raw food and cooked or ready-to-eat food have to be stored in the same refrigerator:
 - store food in **containers with lids**
 - store raw meat, poultry, and seafood **below** ready-to-eat food or cooked food in the fridge



Prepare - CLEAN (Personal Hygiene)

Wash hands frequently

- ❑ before handling food
- ❑ often during food preparation
- ❑ after handling raw meat or poultry
- ❑ after handling soiled equipment or utensils
- ❑ after coughing, sneezing, blowing nose, eating or drinking
- ❑ after touching ears, nose, hair, mouth or other parts of the body
- ❑ after handling rubbish
- ❑ after handling animals and chemicals
- ❑ after going to the toilet
- ❑ before wearing gloves and
- ❑ after engaging in any activities that may contaminate hands (e.g. handling money, carrying out cleaning duties)



Prepare - CLEAN (Personal Hygiene)

- Wash your hands with **warm soapy water** for **20 seconds**
 - ❑ wet hands under running water
 - ❑ rub hands together for at least 20 seconds with liquid soap
 - ❑ rinse hands under running water
 - ❑ dry hands with clean paper towels or air dryers



Prepare - CLEAN (Personal Hygiene)

- **Food handlers should**
 - wear **clean and light-coloured outer clothing** or protective overalls
 - wear **mouth masks** when handling food as far as possible
 - wear **disposable gloves** when handling ready-to-eat food
 - cover sore or cut on hands by waterproof bandages or gloves
 - keep nails short and unpolished



Prepare - CLEAN (Environmental Hygiene)

- Wash utensils and worktops with **hot water** and **detergent** after each use

- Keep kitchen clean and away from insects, pests and other animals
 - keep food **covered** or in **closed containers**
 - keep **rubbish bins** covered and remove rubbish **at least once a day**
 - keep **floors, surface channels** and **gratings** clean and clear from food remnants
 - keep food preparation areas in good condition, e.g. repair wall cracks or holes
 - use rodenticides or insecticides to kill pests but take care **not to contaminate food**
 - keep pets away from kitchen



Store - SEPARATE



- Use separate utensils to handle raw food and cooked or ready-to-eat food
- Label utensils (including cutting boards and knives) with different colours, e.g.
 - Red- Raw food
 - Blue- cooked food
 - Green- Ready to eat food
- Use one utensil to taste and another to stir or mix food



Cook - **COOK** thoroughly



- **Thaw frozen food properly before cooking, put it**
 - **in microwave**
 - **in the fridge or**
 - **under running water**



Cook - **COOK** thoroughly



- Ideally, use a food thermometer to check that the core temperature reaches **at least 75 °C**
- When you use the food thermometer, make sure you use it properly:
 - place the food thermometer **in the centre of the thickest part** of the meat
 - the food thermometer is not touching a bone or the side of the container
 - **clean** the food thermometer between each use



Digital Food Thermometer



Bi-metallic Stemmed Thermometer

Cook - **COOK** thoroughly



- If you do not have a food thermometer, cook or reheat food thoroughly until it is piping hot throughout and check
 - **meat and poultry:** juices are clear, not red;
 - blood is not visible when you cut the cooked meat
 - **eggs:** egg yolks are not runny or liquid
 - **soups and stews:** bring to a boil and continue to boil for at least one minute
- Stir, rotate and cover food when microwaving to ensure thorough cooking



Transport & Serve - SAFE TEMPERATURE

- **Never** leave cooked food at **room temperature** for **more than 2 hours**
 - Label foods to indicate how long they have been stored

- For **hot foods**, keep them at **above 60°C**
 - During transportation,
 - wrap them well and place in a **clean insulated container**
 - When serving, they should be held
 - in **warming device** or
 - on **preheated steam tables, warming trays, and/or slow cookers**
 - Check the temperature frequently to ensure it reaches more than 60°C



Transport & Serve - SAFE TEMPERATURE

- For cold foods, keep them at or below 4°C
 - During transportation,
 - place them in cooler with a cold source such as ice or frozen gel packs
 - When serving, they should be held in
 - shallow containers which are placed inside a deep pan filled partially with ice to keep food cold
 - drain off water as ice melts and replace ice frequently

Follow 5 Keys to Ensure Food Safety