

# 5 Keys to Food Safety Practical Tips for Public



Centre for Food Safety  
Risk Communication Section

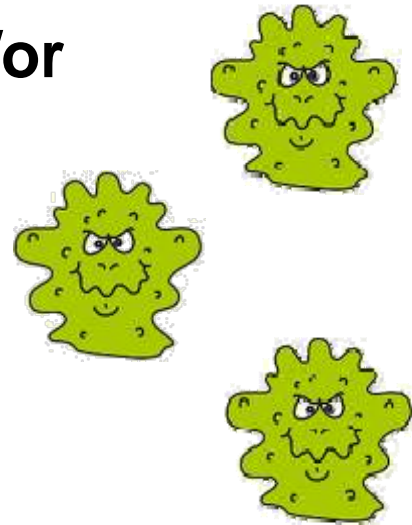
# Content

- **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
  - Manage Leftovers



# What is Foodborne Disease?

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

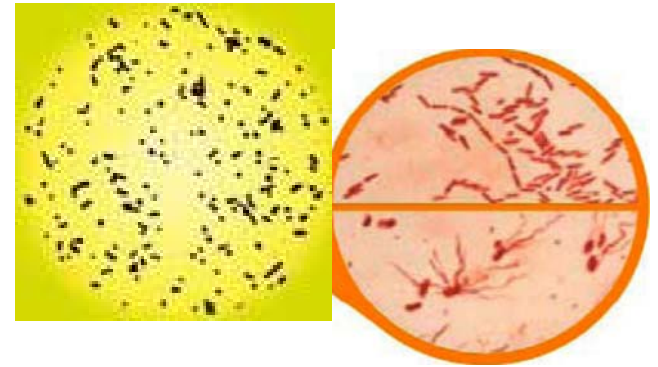


# Common symptoms of Foodborne Disease

- 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%)**

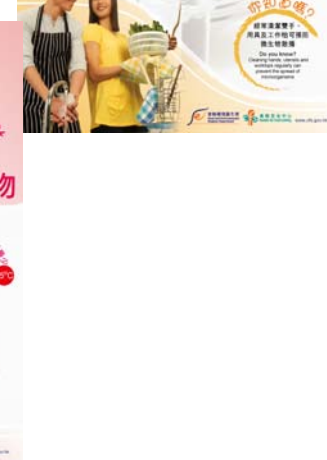
# What are the 5 Keys to Food Safety?

- **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)**



# How to apply 5 Keys to Food Safety in Daily Life

- Purchase
- Store
- Prepare
- Cook
- Manage leftovers





# Purchase - CHOOSE(1)

Buy food from **hygienic** and **reliable** shops

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

# Purchase - CHOOSE(2)

## Select **fresh** and **wholesome** food

- 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**



## Choose ready-to-eat, cooked or perishable foods that are **stored correctly**

- **Hot Food: above 60°C**
- **Cold Food: at or below 4°C**
- **Frozen Food: 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

**Separate** raw food from ready-to-eat food or cooked food

- Pick up your **packaged and canned foods first**, shop for **raw** meat, poultry and seafood **last**
- Keep raw meat, poultry, and seafood **separate** from other food items in your grocery cart and shopping bags to **prevent their juices** from **contaminating** other food items

## READ THE FOOD LABELS



# Purchase - CHOOSE(4)

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

	“use by” date	“best before” date
<b>Example of Food</b>	A cup of ice-cream	A pack of biscuit
<b>Example of Expiry Date</b>	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
<b>Recommendations after the Expiry Date</b>	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 the **temperature of the refrigerator** with a thermometer
  - **Fridge: at or below 4°C**
  - **Freezer: at or below -18°C**
- **Don't overstuff your refrigerator**

# Store - SEPARATE

- In the refrigerator
  - Store food in **containers with lids** to avoid contact between raw and ready-to-eat food or cooked food
  - Store **raw** meat, poultry, and seafood **below ready-to-eat food or cooked food** to prevent juices from dripping onto ready-to-eat food or cooked food



# Prepare - CLEAN (Personal Hygiene)

## ■ Always Wash your Hands

- ❑ Before handling food
- ❑ After handling raw meat or poultry
- ❑ During food preparation
- ❑ Before eating
- ❑ After blowing nose, handling rubbish, going to the toilet or changing nappies
- ❑ After playing with pets
- ❑ After smoking

# Prepare - CLEAN (Personal Hygiene)

**Wash your hands with warm soapy water for 20 seconds**

1. Wet hands under running water
2. Rub hands together for at least 20 seconds with liquid soap
3. Rinse hands under running water
4. Dry hands with a clean dry towel, preferably a paper towel





# Prepare – CLEAN (Environmental Hygiene)

- Wash utensils and worktops with **hot water** and **detergent** after each use
  - Scrape **excess food** into a rubbish bin
  - Wash in hot water with detergent, using a clean cloth or brush (sponge is not recommended) to remove **leftovers** and **grease**
  - Rinse in **clean** hot water
  - Leave cutting boards, dishes, or utensils to air-dry, or wipe with a clean dry cloth



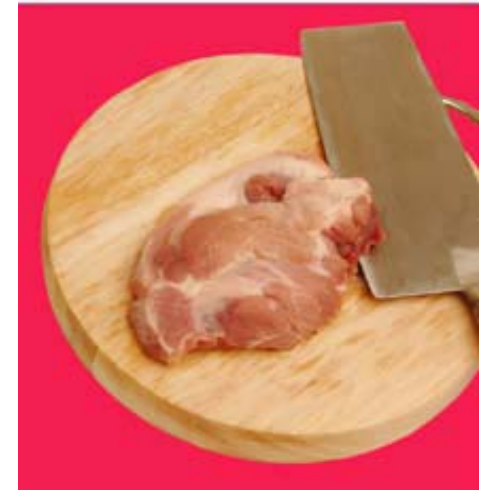
# Prepare – CLEAN (Environmental Hygiene)

- **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 **regularly**
  - Keep food preparation areas in good condition, e.g. repair wall cracks or holes
  - Use baits 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 such as poached chicken or fruits
- 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 of food 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**: make sure that **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**
- When microwaving
  - Stir, rotate and cover food to ensure thorough cooking



# Manage Leftovers- SAFE TEMPERATURE

- Take food promptly after cooking. **Do not** leave cooked food at room temperature for **more than 2 hours**
- Promptly **cool** leftovers and refrigerate **within two hours**
- Leftovers can be cooled quickly by
  - ❑ Slicing large pieces of meat into smaller pieces
  - ❑ Placing food in a cool, clean container
  - ❑ Stirring regularly for soups



# Manage Leftovers- SAFE TEMPERATURE

- If cooked food are not eaten immediately, keep them  **piping hot (above 60°C)**  prior to serving
- Leftovers  **should not**  be stored in the refrigerator for  **longer than 3 days**  and  **should not**  be reheated  **more than once**
- Reheat leftovers thoroughly until it is  **steaming hot**  before consumption



---

# “Follow Five Keys to Ensure Food Safety”