

5 KEYS TO FOOD SAFETY



Practical Tips for Public





CONTENT

Introduction	P. 2 – 3
How to apply 5 Keys to Food Safety in Daily Life	
• Purchase	P. 4 – 5
• Store	P. 5
• Prepare	P. 6 – 7
• Cook	P. 8
• Management of Leftovers	P. 9
Checklist of 5 Keys to Food Safety	P. 10
Myths and Facts	P. 11 – 12

INTRODUCTION

Food is more enjoyable if you know it's safe to eat. Proper food handling can prevent most foodborne diseases, including preventing foodborne infections due to antimicrobial resistance bacteria. Stop microorganisms from making you and other people sick by following the 5 Keys to Food Safety.

WHAT IS FOODBORNE DISEASE?

- Sickness caused by food that you eat is called foodborne disease and is caused by dangerous microorganisms and/or toxic chemicals.
- The most common symptoms of foodborne disease are stomach pains, vomiting and diarrhoea. Most symptoms occur in 24 to 72 hours. Most are mild but some may severely affect **infants, pregnant women, elderly** and **the sick**. A very small percentage of foodborne diseases may lead to long-term health problems.

WHAT ARE THE CAUSES OF FOODBORNE DISEASE LOCALLY?

- Bacteria and viruses are common causative agents of foodborne disease, e.g. *Vibrio parahaemolyticus*, *Listeria monocytogenes*, *Salmonella* species, *Staphylococcus aureus* and *Noroviruses*.
- In general, inadequate cooking, cross-contamination by raw food and poor personal hygiene conditions are common contributing factors of foodborne disease.

WHAT ARE THE 5 KEYS TO FOOD SAFETY?

The World Health Organization has advocated five simple and effective keys for people to follow to prevent foodborne diseases. They are:

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)

Below are some practical tips that help you to apply the 5 Keys in daily life from purchase, storage, preparation, cooking to management of leftovers.

Antimicrobial resistance (AMR) occurs when microorganisms such as bacteria, viruses, fungi and parasites change in ways that render the medications used to cure the infections they cause ineffective. AMR bacteria are often acquired through ingestion or contact (and enriched especially during antimicrobial treatment), from colonised or infected animals/food, humans, or their contaminated environment.

The 5 Keys to Food Safety target the basic principles that each individual, including food handlers, should know to prevent foodborne diseases, including preventing foodborne infections due to AMR bacteria. The Five Keys to Food Safety could effectively prevent foodborne disease, whether the pathogens are AMR or non-AMR.

PURCHASE

CHOOSE

AT MARKET AND SUPERMARKET

- Buy food from **hygienic** and **reliable shops**
 - Don't buy food from illegal hawkers or questionable source, e.g. food of unreasonably low price or meat with abnormal red colour
- Select **fresh** and **wholesome** food
 - Fruits or vegetables are not damaged and without bruised areas
 - Canned foods are not bulging or dented or 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, e.g. sushi from supermarket should be stored at 4°C or below, frozen chicken should be stored at -18°C or below
- Do not use food beyond its expiry date
 - Read food labels carefully and follow instructions
 - Choose food before its expiry date, which may be either in the form of "use by" or "best before" date

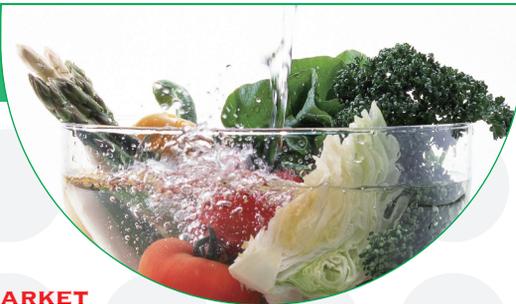


Table: Difference between "use by" and "best before" date

	"use by" date 「此日期或之前食用」日期	"best before" date 「此日期前最佳」日期
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

SEPARATE

- Pick up your packaged and canned food 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

COOKED



PURCHASE

RAW

STORE

SAFE TEMPERATURE

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

SEPARATE

IN THE REFRIGERATOR:

- Store food in **containers with lids** to avoid contact between raw food 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 – ALWAYS START WITH A CLEAN SCENE

KEEP YOURSELF CLEAN

- Wash hands
 - Before handling food and often during food preparation, after handling raw meat or poultry and before eating
 - After blowing nose, handling rubbish, going to the toilet, changing nappies, playing with pets and smoking



- Wash your hands with **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 a clean dry towel, preferably a paper towel
- 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

KEEP THE ENVIRONMENT CLEAN

- 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



SEPARATE

- Use separate utensils to handle raw food and cooked food 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

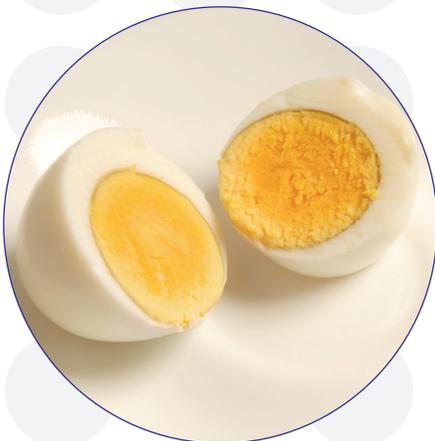
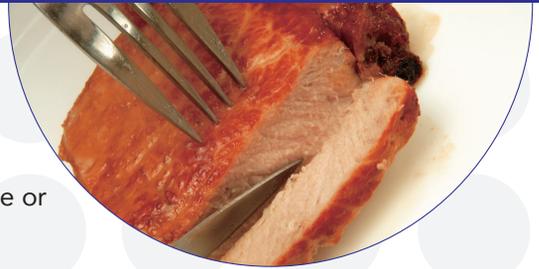
- Use one utensil to taste and another to stir or mix food



COOK

COOK

- Thaw frozen food in microwave, fridge or under running water before cooking
- 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
 - Place it in the **centre of the thickest** part of the meat
 - Make sure it is not touching a bone or the side of the container
 - Make sure it is cleaned between each use
- If you do not have a food thermometer, cook or reheat food thoroughly until it is piping hot throughout and check
 - For meat and poultry, make sure that juices are clear, **not red**, blood is not visible when you cut the cooked meat
 - Egg yolks are not runny or liquid
 - Bring soups and stews to a **boil** and continue to boil for **at least one minute**
- Stir, rotate and cover food when microwaving to ensure thorough cooking



MANAGEMENT OF LEFTOVERS

SAFE TEMPERATURE

- Take food promptly after cooking.
- 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
- Cooked foods that are not eaten immediately should be stored at proper temperature: cold dish at **4°C** or below; hot dish at above **60°C**
- 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



CHECKLIST OF 5 KEYS TO FOOD SAFETY

When purchasing food:

Choose hygienic and reliable shops

Check that food is stored at proper temperature and storage conditions

Check the expiry date of the prepackaged food

Keep raw food separate from other food in shopping bag and grocery cart

After purchasing food:

Store cooked and perishable food in the refrigerator within two hours if not used immediately

When using the refrigerator:

Do not overstuff it

Check the temperature of the refrigerator to ensure that the fridge is kept at 4°C or below; freezer is kept at -18°C or below

Store food in containers with lids

Store raw food under cooked food or ready-to-eat food

Before preparing food:

Wash hands with soapy water for 20 seconds

During food preparation

Use separate knives and cutting boards for raw food and cooked food

Wash hands between handling raw food and cooked food

Thaw frozen food in microwave, fridge or under running water

Cook food thoroughly and use a food thermometer to check that the core temperature reaches at least 75°C

Bring soup and stews to a boil and keep for at least one minute

Check that juices of poultry and meat are clear, not red

Check that egg yolks are not runny or liquid

Stir and rotate dish in the microwave

Use separate dishes and bowls for raw food and cooked food or ready-to-eat food

Keep cooked food piping hot (above 60°C)

After food preparation:

Wash utensils and worktops with hot water and detergent

For leftovers:

Store in the refrigerator within 2 hours

Reheat thoroughly before consumption and reheat once only

MYTHS AND FACTS

CHOOSE



I have meals at the restaurant nearby for years and I have never suffered from any foodborne disease by consuming food there. That restaurant must be hygienic.



If you want to know whether the shop is hygienic, observe the followings:

1. See if the food handlers
 - Wash their hands, utensils and worktops
 - Keep touching nose, mouth, hair or anything likely to be dirty while preparing food. Microorganisms can be transferred to food.
 - Touch the food with their hands or using utensils. The use of utensils when handling food is better.
 - Use separate utensils, cutting boards, knives or dishes for raw food and cooked food
2. See if the condition of the food premise is hygienic and free from rats and pests.
3. See if food is prepared properly
 - Food is kept in sealed containers that prevent pests from entering food
 - Hot food is served hot and cold ones cold.

CLEAN



Wash hands with water is good enough.



No. Soap is important and without the use of soap, the surface of hands is unclean. The soap should be adequately lathered so as to remove oil and microorganisms on the surface of hands. Make sure that both sides of hands, around your thumbs, under your nails and between your fingers are cleaned.

MYTHS AND FACTS

SEPARATE



Some cutting boards in the market claimed to have anti-bacterial property. Is it ok to use one "anti-bacterial" cutting board for both raw and cooked food?



No matter what type of cutting board you are using, these guidelines should be followed:

- Use two cutting boards: one strictly to cut raw meat, poultry and seafood; the other for cooked food or ready-to-eat food, like poached chicken or fruits
- Wash boards thoroughly in hot water and detergent after each use or place in dishwasher
- Discard old cutting boards that have cracks, crevices and excessive knife scars.

COOK



Use of microwave is very convenient because I just need to ensure that the food is heated for sufficient time.



No, you have to stir, rotate the dish, and cover food for even cooking. Don't leave cold spots where dangerous microorganisms can survive.

SAFE TEMPERATURE



Storing food in the refrigerator can kill bacteria.



No. Cooling or freezing food does not kill bacteria but limits growth. If you want to store cooked food in a refrigerator, do it within two hours of cooking. Then reheat leftovers thoroughly before eating.