

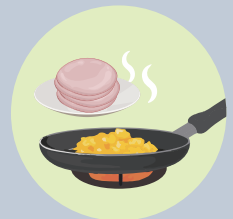
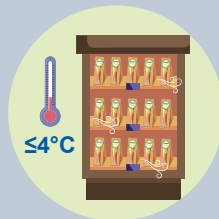
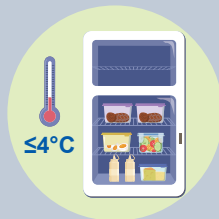
# Sandwiches

Food Safety Guidelines for Food Businesses



# In a nutshell

- Sandwiches are a high-risk food because they are often handled by hand during preparation that can lead to cross-contamination, and they are made with perishable ingredients that could get contaminated with bacteria if they are not handled properly.
- Food handlers should keep their hands clean by washing them often and when needed, and store and handle raw ingredients separately from cooked or ready-to-eat ingredients.
- When not in use, ingredients including sauces and fillings that can go bad easily should be kept in the refrigerator.
- Packed sandwiches should be served as soon as possible, or else they should be refrigerated rather than kept at room temperature for display.
- If applicable, food should be cooked all the way through.



# Introduction and scope

Sandwiches are considered a high-risk food due to the presence of disease-causing bacteria (e.g. *Salmonella* and *Listeria monocytogenes*) in some ingredients such as eggs, salad dressings/spreads, sliced deli meats and fresh ready-to-eat vegetables, which is often worsened by improper handling and storage of sandwiches. Besides, sandwiches may be contaminated with bacteria such as *Staphylococcus aureus* from human skin and other microorganisms with antimicrobial resistance ("superbugs") because sandwich preparation often involves manual handling of ready-to-eat ingredients.

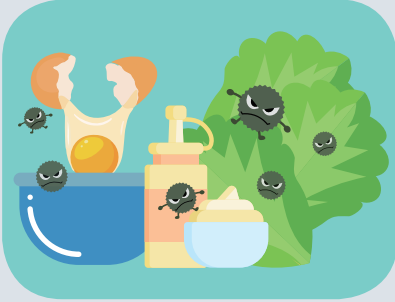
This set of guidelines is intended for food businesses that prepare, display and sell sandwiches. It aims to help them implement Good Hygiene Practices (GHPs) and appropriate food safety measures in their operations to produce and supply safe and wholesome sandwiches.

While this is not a legal document and its use is voluntary, it reviews some essential parameters related to GHPs and recommends best practices that any food business operator should consider in providing safe foods to consumers.





# Common food safety problems related to sandwiches



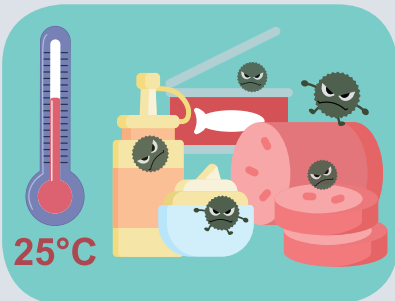
## Contamination of ingredients due to inadequate washing or cooking

- Unpasteurised raw eggs not cooked to a temperature of 75°C to kill bacteria, or used to make a spread without adequate heat treatment
- Ready-to-eat raw vegetables not thoroughly washed prior to use



## Cross-contamination of food during preparation or packing

- Food handlers handling cooked or ready-to-eat food after touching raw ingredients without washing hands or changing gloves
- Use the same utensils, such as knife and chopping board, to handle both raw and ready-to-eat or cooked ingredients



## Bacterial growth due to improper storage temperature

- Perishable ready-to-eat ingredients not refrigerated, such as egg-containing salad dressings/spreads, opened canned tuna fish
- Prepackaged sandwiches not refrigerated during display

# Safe preparation of sandwiches

To prepare safe sandwiches, food handlers should follow the “**Five Keys to Food Safety**” in the daily operation:



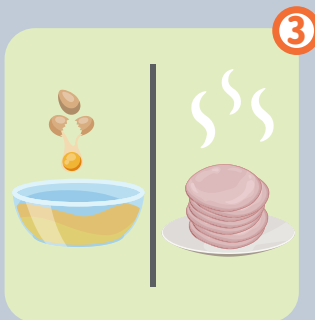
## Choose

Choose safe raw materials



## Clean

Keep hands and utensils clean



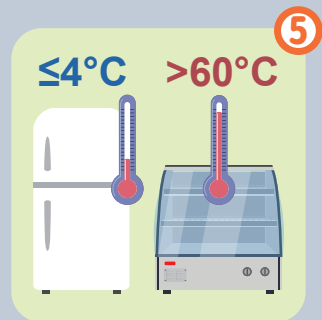
## Separate

Separate raw and cooked food



## Cook

Cook thoroughly



## Safe temperature

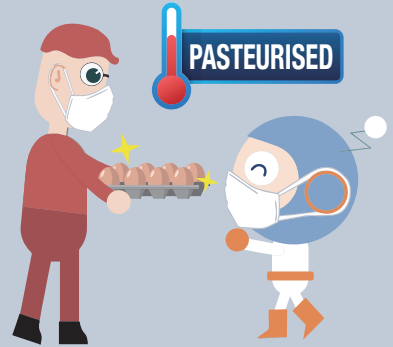
Keep food at safe temperature

# Purchase and receiving

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● Upon purchase, choose:

- food ingredients from approved and reliable sources;
- pasteurised egg and milk products, if applicable, such as salad dressings/spreads and cheeses made with pasteurised eggs and pasteurised milk respectively;
- canned products (such as canned tuna<sup>1</sup>) of the suitable size to avoid the need to store the decanted contents a longer period than required.



● Upon receipt, check food ingredients to make sure that:

- they are within the “use by” or “best before” dates;
- there are no signs of contamination or damage to the packaging;
- chilled/frozen ingredients arrive at the appropriate temperatures (e.g. frozen items at  $-18^{\circ}\text{C}$  or below and chilled items at  $4^{\circ}\text{C}$  or below) and are free from signs of temperature abuse.




● High-risk food ingredients, such as meat, meat products, fish, cheeses, eggs, salad dressings/spreads and dairy products, are susceptible to spoilage and contamination. As soon as they arrive, they should be kept at:

- **$4^{\circ}\text{C}$  or below** for **chilled items**;
- **$-18^{\circ}\text{C}$  or below** for **frozen items**.

● Foods that can be stored at room temperature should be placed in a cool, dry place.

  $\leq -18^{\circ}\text{C}$

  $\leq 4^{\circ}\text{C}$



Raw foods



Ready-to-eat/  
Cooked food

<sup>1</sup> High levels of histamine sufficient to cause poisoning may be formed in opened canned tuna if the tuna is left at room temperature for a prolonged period. Purchase small tins of tuna is preferable.

- To prevent cross-contamination, raw food should be kept separate from cooked or ready-to-eat food, like in two different refrigerators. Alternatively, the upper storage compartment of the same refrigerator should only be used to store cooked or ready-to-eat food.
- Mark a “use by” date for prepackaged ready-to-eat ingredients after opening, especially for refrigerated ingredients. Use stocks on a first-in-first-out basis.
- Record the disposal of expired ingredients.

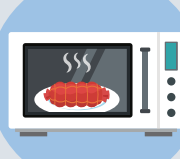
## 2 Preparation

Always clean and sanitise all food preparation surfaces and wash hands thoroughly before starting work:

- Plan ahead the schedule or sequence of sandwich preparation to avoid leaving potentially perishable food ingredients under ambient conditions for too long.
- Food should be completely defrosted before being cooked, unless the manufacturer claims it can be cooked from frozen:
  - Defrost frozen food in a refrigerator at 4°C or below, in a microwave or under running water.
  - Foods that are frozen but ready to eat right away with no cooking required, like sliced deli meats and smoked salmon, should be defrosted in the refrigerator.
  - Use defrosted food as soon as possible.
  - Do not let defrosted ingredients sit out for more than 2 hours at room temperature.



For food that **needs no heat treatment after defrosting**



**Proper ways of defrosting**

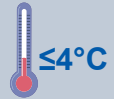
**Do not defrost food at room temperature**

- Clean and maintain all equipment and utensils properly. Handle raw and cooked or ready-to-eat foods with separate sets of utensils, containers and chopping boards to minimise the chance of cross-contamination.

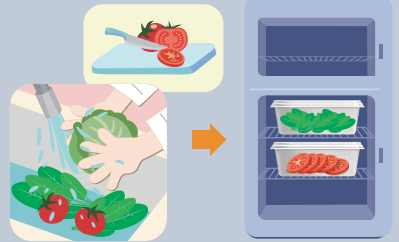


### Handling of ready-to-eat fresh produce

- Wash all raw ready-to-eat fresh produce thoroughly under running water and, as far as possible, in a sink exclusive for this use. Peel or trim as appropriate.
- Use a clean vegetable brush to scrub cucumbers and other firm produce.
- If disinfectants are used for ready-to-eat fresh produce:



- they should be food-grade and purchased from reputable suppliers;
- follow the manufacturer's instructions for concentrations and contact time; and



- monitor and control disinfectant levels to ensure the maintenance of effective concentrations and to minimise safety hazards.

- Cut fresh produce such as tomatoes, cucumbers should be refrigerated because they are susceptible to bacterial growth.

### Handling of sauces and fillings

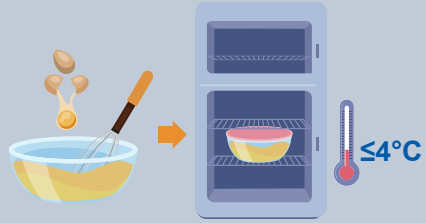
- Keep all sandwich sauces and fillings, particularly salad dressings/spreads, other egg-containing sauces and fish, at 4°C or below when not in use. Bacteria may develop quickly in sauces and fillings left at room temperature for too long.
- After opening, prepackaged or canned food should be stored in accordance with the manufacturer's instructions and used up as soon as possible.
- Transfer food from an opened can to a clean, lidded container before refrigeration.
- Avoid preparing self-prepared sauces and fillings too early, and use them up on the same day.





## Pooling of eggs

- Raw eggs may contain *Salmonella*. Pooling eggs can allow one infected egg to contaminate the whole pool of eggs. Follow the measures below to minimise the microbiological risk:
  - Where possible, only break enough eggs for immediate service in response to a consumer's order.
  - Plan the production schedule to avoid preparing pooled eggs too far or too much in advance.
  - Keep pooled eggs not for immediate use in a covered container in the fridge and only take out the amount as needed.
  - Use all pooled eggs on the day of pooling and do not top up with new eggs.
  - Cook pooled eggs thoroughly, with core temperature at 75°C or with equivalent heat treatment.
- Once pooled eggs are used, keep hot dishes at above 60°C and cold dishes at 4°C or below if they are not consumed immediately after preparation.



Use within a day

For further safety details of preparing eggs and egg products (such as mayonnaise), please scan the QR code:



## Cooking and reheating

- Cook or reheat ingredients, such as eggs, bacon, sausage, chicken and beef, which require cooking or reheating thoroughly. The core food temperature should reach 75°C or above for at least 30 seconds.
- Cooked ingredients should not be left at room temperature for long, so plan the production schedule and avoid prepare cooked ingredients too far in advance.

## Packing

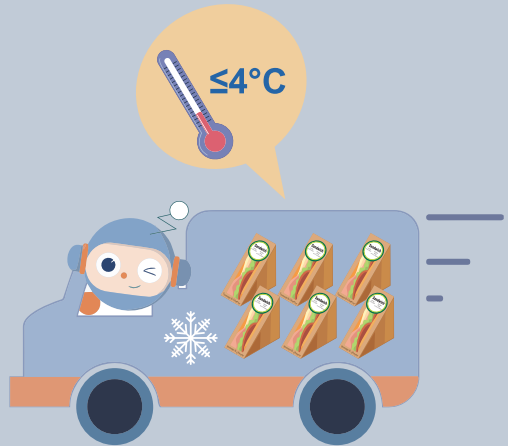
- Keep only the required amount of fillings/ingredients on the preparation counter for the preparation of sandwiches. Cover and store fillings at 4°C or below.
- Refrigerate sandwiches immediately after preparation.
- Label all prepackaged sandwiches with information such as “use by” date, storage instructions, etc.<sup>2</sup>



<sup>2</sup> Please refer to the Food and Drugs (Composition and Labelling) Regulations (Cap 132W) for further details.

# Transportation, distribution and display 3

- Transport, distribute and display sandwiches properly at 4°C or below.
- Where possible, equip transportation, distribution and display units with accurate and reliable temperature control and monitoring devices. Measure and record the temperature twice a day.
- Distribute and sell sandwiches on a first-in-first-out basis.
- If choosing to display sandwiches at ambient temperature, display sandwiches for no longer than 4 hours, taking into account all durations during transport, storage or preparation of sandwiches between 4°C and 60°C.
- Use an identification system (e.g. date dot stickers of different colours) to identify the time limit of display (i.e. "display till") of sandwiches to prevent the sandwiches from being displayed for too long, particularly those displayed at room temperature. Sandwiches that have not been sold by the specified time should be discarded.
- Appropriate and adequate refrigeration facilities should be available in retail outlets selling sandwiches. If space for storage and display is limited, only receive/prepare an amount of sandwiches that can be adequately stored or displayed at 4°C or below.



25°C



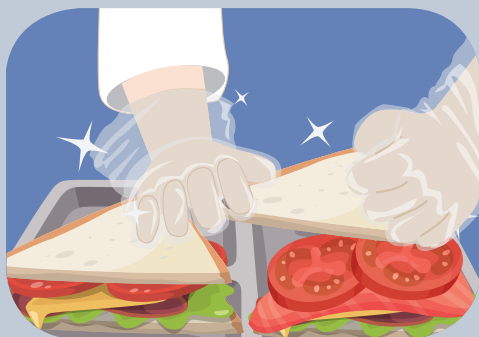
4 hours



## 4 Personal hygiene

Always maintain good personal hygiene, including:

- Wash hands thoroughly with running water and liquid soap for 20 seconds before and after handling food (especially after contact with raw food) or after going to the toilet.
- Open wounds should be covered by brightly coloured, waterproof bandages or gloves.
- Using gloves or tools such as food tongs properly can avoid contact with food with bare hands. Once touching raw ingredients, change gloves or tools and wash hands thoroughly before handling cooked or ready-to-eat food.
- Do not use mobile phones while working with food. If required, wash hands thoroughly after use.
- Suspend from engaging in any food handling work when suffering or suspected to be suffering from an infectious disease or symptoms of illness such as diarrhoea, vomiting, fever, sore throat and abdominal pain.



## Food advice for consumers

Inform consumers the risk of consuming raw/undercooked foods if there are raw/undercooked ingredients (e.g. smoked salmon, mayonnaise made with raw eggs) in the sandwiches. Food businesses can provide consumer advice on menu boards, brochures, signage, food labels and placards if suitable.



The following is an example of consumer advice:

Consuming raw or undercooked foods may increase the risk of foodborne illness, especially for pregnant women, infants, young children, the elderly and people with weakened immunity.



## Providing allergen information

Food businesses are required by law to provide accurate information about the allergenic ingredients in the prepackaged food they prepare. Several food allergens are commonly found in the production of sandwiches, including but not limited to eggs, fish, gluten (from bread), milk (from dairy products) and peanuts (from spreads).

If prepackaged sandwiches are produced, food businesses can provide allergen information on the packaging in a number of ways.



Our labelling guidelines provide a detailed account of the labelling requirements for allergen information. Scan the QR code to find out more:

