



## Bacterial food poisoning

Bacterial food poisoning is an acute illness caused by the consumption of food contaminated by bacterial pathogens.

Affected persons usually show gastrointestinal symptoms like nausea, abdominal pain, diarrhoea and vomiting. Other symptoms like fever may also develop. The incubation period varies from hours to days depending on the causative agent.

# Common Contributing Factors to Bacterial Food Poisoning

- Contamination of Cooked Food
  - \* Cooked food has been contaminated by food handlers, raw food, food contact surfaces or pests.
    - Improper Storage of Cooked Food
    - \* Cooked food has been stored between 4°C and 60°C for a prolonged period.
    - Inadequate Cooking of Food
  - \* Raw food has not been cooked thoroughly to reduce any pathogen present.
- Consumption of Raw Food
- \* Food (e.g. shrimps) that usually has a high bacterial count or pathogen content has been eaten in a raw state without cooking.

# Common causative agents in bacterial food poisoning

Below are several examples:

Name of bacteria	Sources of bacteria	Foods usually contaminated by such bacteria
<ul> <li>Salmonella</li> </ul>	Intestines of animals, especially poultry	<ul> <li>Inadequately cooked meat, poultry, eggs and their products</li> </ul>
Staphylococcus aureus	Nasal cavity, skin, hair, infected cuts and wounds	<ul> <li>Foods that involve manual handling but with no subsequent cooking or</li> </ul>

reheating (e.g. sandwiches,

cakes, pastries)

•	Vibrio parahaemolyticus	Estuarine and marine environment	*	Marine products to be eaten raw (e.g. oyster, sashimi)
			*	Inadequately cooked marine products (e.g. jellyfish, shrimps)
•	Bacillus cereus	Soil, plants	*	Rice dishes (e.g. leftover rice)
			*	Meat products
			*	Vegetables
•	Clostridium perfringens	Soil, plants, animal excrements	*	Inadequately cooked or reheated meat, meat pies and gravy
•	Shigella	Stool of infected persons	*	Ready-to-eat food contaminated by infected food handlers
			*	Raw vegetables
•	Campylobacter	Intestines of poultry	*	Inadequately cooked poultry and meat products
•	E. coli O157:H7	Intestines of cattle	*	Inadequately cooked beef and beef products, especially ground beef such as hamburger meat

## **Preventive measures**

The best way to prevent bacterial food poisoning is to observe good hygiene practices at all stages of food preparation. The following points should be noted:

#### Purchase of food

- \* Purchase food from hygienic and reputable sources.
- \* Do not patronise unlicensed food establishments and hawkers.
- \* Do not buy any ready-to-eat food that is not properly protected (e.g. barbecued or preserved meat hanging outside the shops, cooked food that is not covered properly).
- \* Pay attention to the "use by" or "best before" dates on food labels when buying prepackaged foods. Read and follow the storage conditions.
- \* Do not buy any food that looks abnormal (e.g. swollen or dented canned foods).

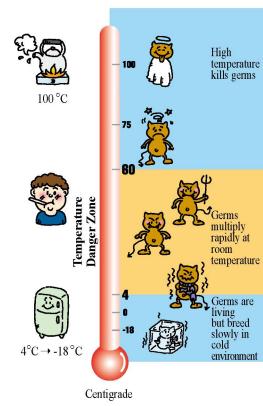
### Handling of food

\* Wash and cook raw material thoroughly, especially meat and marine products.

- \* Wash hands with liquid soap and water before handling food, after handling raw food or after visiting the toilet.
- \* Anybody suffering from diarrhoea or vomiting should not handle food to avoid cross-contamination.
- Dress wounds properly with waterproof plasters before handling food.

### Storage of food

- Prepare and store cooked and raw foods separately to avoid crosscontamination. Place cooked food in the upper compartment of refrigerator.
- \* Keep cooked food at 4°C or below or at 60°C or above if they are not consumed at once. Do not store food under room temperature to avoid multiplication of bacteria.
- Discard leftovers or otherwise store them properly in the refrigerator (at 4°C or below). Reheat leftovers thoroughly before consumption.



## **Enquiry:**

For further enquiries and information, please call the Communication Resource Unit of the Food and Environmental Hygiene Department on 2381 6096 or the department's 24-hour hotline 2868 0000.

