

# Cholera

Cholera is an intestinal infection usually contracted through consumption of food or water contaminated with the bacterium *Vibrio cholerae*. Seafood including bivalve molluscs, crustaceans and finfish are most often linked to food-borne cholera infections.

Incubation period of cholera ranges from a few hours to five days.

The infection is often mild or without symptoms but sometimes can be severe. Symptoms of cholera can include mild diarrhoea and vomiting. Some patients may have severe symptoms with sudden onset of profuse diarrhoea with ricewater like and fishy smelling stool, nausea and vomiting. Without prompt treatment, death can occur due to severe dehydration.



# Prevention

# In order to prevent cholera, it is essential to follow the 5 Keys to Food Safety in food preparation:

- 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)



# Key control measures especially for seafood are highlighted as follows:

#### **Purchase**

- Buy food from approved and reliable sources.
  Do not patronise food from illegal hawkers.
- Do not buy food with abnormal appearance, smell and taste.



### Storage

- Keep perishable food at 4°C or below to minimise and/or prevent the growth of *Vibrio cholerae*. Use the thermometer to check the temperature of the refrigerator.
- Keep raw food and cooked food or ready-to-eat food separately. Store food in containers with lids to avoid contact between raw food and cooked food or ready-to-eat food. Store raw meat, poultry and seafood below cooked food or ready-to-eat food in the refrigerator to prevent juices from dripping onto cooked food or ready-to-eat food.
- All food business licence holders should keep live fish or shellfish in water of quality not below the standard specified in Public Health and Municipal Services Ordinance, Chapter 132. It is also prohibited to extract seawater from specified areas for keeping live fish or shellfish for human consumption.
- Keep live fish and shellfish separately in different fish tanks equipped with proper filtration and disinfection systems and clean fish tanks at regular intervals.





# **Food preparation**

- Prepare, cook and/or consume food especially seafood immediately after removing them from the refrigerator.
- Food should be washed thoroughly before cooking.
- The shells of shellfish should be scrubbed and rinsed, and viscera should be removed during preparation.
- Use different utensils to handle raw food and cooked food or ready-toeat food separately e.g., use separate chopsticks and utensils for handling cooked and raw food and use different colour codes for different utensils (including cutting boards and knives):

Red — Raw food

Blue - Cooked food

Green — Ready-to-eat food

- Cook food thoroughly with core temperature at 75°C or above for at least 30 seconds.
- Shellfish should be heated to internal temperature of 90°C for 90 seconds or boiled at 100°C until their shells open and boiled for additional three to five minutes afterwards.
- If possible, remove the shells before cooking as they impede heat penetration.
- Avoid the consumption of raw or partially treated seafood especially for immunocompromised individuals.
  - Even though shellfish specifically intended for raw consumption is harvested from waters with controlled faecal contamination, they are not absolutely free from *Vibrio cholerae* as they may occur naturally in the marine environment.
- Promptly refrigerate leftover food and thoroughly reheat them before consumption, with core temperature reaching at least 75°C.

# Personal hygiene

- Always follow good personal hygiene practices, including:
  - Wash hands thoroughly with running water and soap for 20 seconds before and after handling foods, during food preparation, or after going to the toilet.
  - 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 flu, diarrhoea, vomiting, fever, sore throat and abdominal pain.