

Food Hygiene in Hospitals

Why is food poisoning on the increase?

- Change of eating habits.
- Change in shopping habits.
- Reduction in preservatives.
- Increased reporting.

Principles of Food Hygiene

The 10 most common causes of food poisoning

1. Food prepared too far in advance
2. Food stored at room temperature
3. Food cooled too slowly before refrigeration
4. Food not reheated to a sufficiently high temperature to destroy food - poisoning bacteria
5. Cooked food contaminated with food-poisoning bacteria
6. Meat and meat products undercooked
7. Frozen meat and poultry not thawed completely
8. Cross-contamination from raw to cooked foods
9. Hot food stored below 63°C
10. Food handlers with gastrointestinal infection

Food Poisoning

Food poisoning is an illness caused by the consumption of contaminated food.

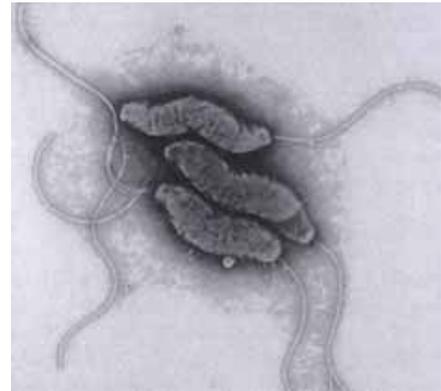
Its main symptoms are listed below:-

- Abdominal pain
- Vomiting
- Nausea
- Diarrhoea
- Temperature

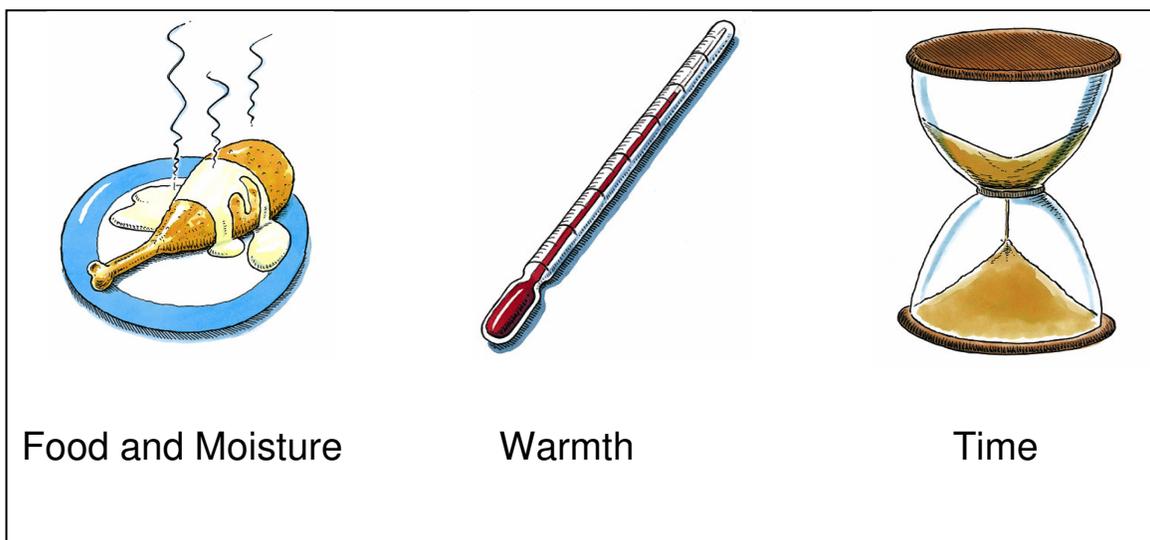


Bacterial Growth Requirements

Food poisoning bacteria will multiply when they have ideal conditions, and can reach dangerous levels very quickly. They have four main requirements:-



Bacterial requirements



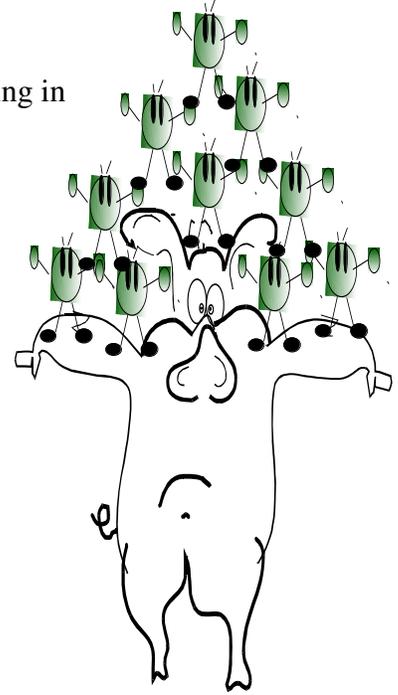
Bacteria Reproduction

Bacteria reproduce by using a process called *binary fission* (splitting in two).

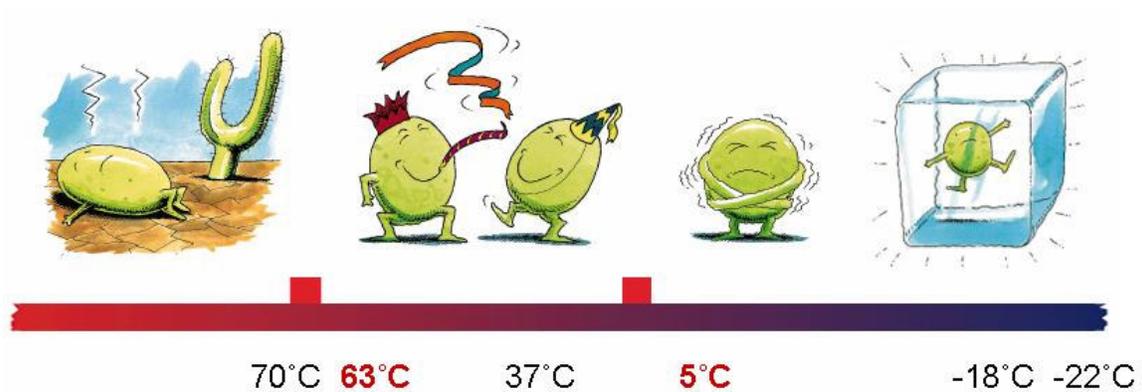
In ideal conditions this process will occur every *10 to 20 minutes*.

If you start with 2 bacterial cells in your food, and binary fission occurs every 20 minutes, how many bacteria will be present in the food in 2 hours?

- a) 20
- b) 64
- c) 640
- d) 1860



The danger zone

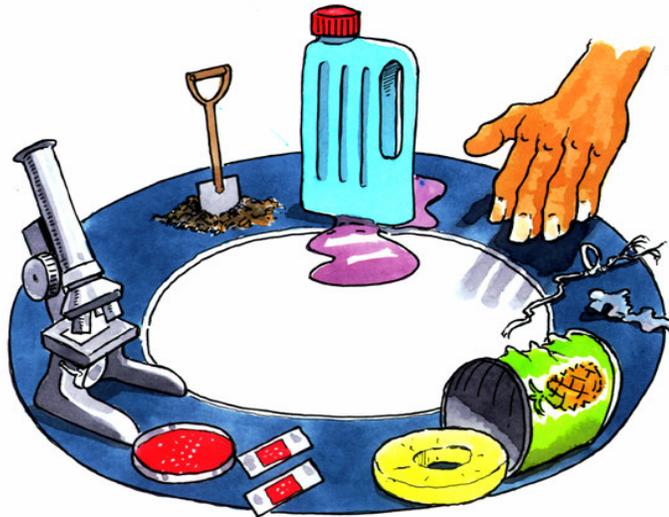


Time and temperature control: general rules

- Keep hot food hot (at 63°C or above)
- Keep cold food cold (at below 5°C)
- Keep frozen food frozen (at -18°C or below)

- Minimise the time high risk food is in the danger zone
 - store deliveries immediately
 - minimise preparation time
 - heat quickly
 - cool quickly
- Cook and serve food immediately if possible
 - avoid re-heating
 - if food must be re-heated, do so only once
- Check the expiry dates
- Rotate foods in storage

Sources of contamination



Guidelines for practice : preparation of food

- Always wash hands before and after handling food, and after using the toilet
- Use separate utensils for raw and cooked food; clean thoroughly with detergent and water after each use
- Clean preparation surfaces thoroughly with detergent and water after each use
- Blenders, mixers and slicing machines must be dismantled and cleaned thoroughly with detergent and water after each use
- Wash all salads, fruit and vegetables in running water
- Do not store raw and cooked food together
- Keep food in the refrigerator covered to prevent cross - contamination.

Guidelines for practice : storage of food

- Do not keep prepared food at room temperature for more than 1 hour
- Plug heated food trolleys in as soon they arrive on the ward and serve the food immediately
- Do not keep meals in warm oven
- Do not save and reheat meal for patients absent at mealtimes
- Do not use chilled meals or food beyond its sell-by date
- Ensure the refrigerator is fitted with a thermometer and is maintained between 1 and 4°C
- Date items stored in the fridge and discard after 3 days

Guidelines for practice : ward kitchens

- Check that the ward kitchen is clean
- Ensure the refrigerator is sited out of direct heat or sunlight
- Monitor the refrigerator regularly, discard unlabelled or outdated items and check the temperature
- Ensure soap and hand towels are available

Guidelines for practice : The management of enteral feeds

- Use commercially prepared feeds in prefilled administration reservoirs where possible.
- Pay scrupulous attention to principles of food hygiene if feeds are mixed on the ward
- Blenders used to prepare feed must be dismantled, and washed with detergent and dried after each use.
- Wash hands before handling enteral feeding systems
- Avoid direct contact between the administration set connections and any non-sterile object

- Administer feed over as short a time as possible
- Store opened feeds in the refrigerator and discard after 24h
- Replace administration sets and reservoirs every 24h. Do not wash out and re-use
- Flush tubing with plenty of water after administering intermittent feeds.

High risk foods

- High risk foods are those which
 - easily support bacterial multiplication under favourable conditions
 - will not receive extra treatment, such as cooking, that would kill pathogens before the food is eaten
- They usually
 - are ready-to-eat foods
 - are moist and high in protein
 - require refrigeration

Examples of high risk foods

- Cooked meat and cooked poultry
- Cooked meat products, such as stew, gravy and soup
- Meat and fish pastes, spreads and salads
- Milk and eggs and uncooked or lightly cooked products made from them
- Shellfish and seafood
- Cooked rice

Poor time and temperature control

- Preparing food too soon before serving or selling it and leaving it at a danger zone temperature
- Inadequate cooling – ‘warm’ for too long
- Inadequate cooking – not hot enough for long enough all through the food
- Holding hot food at a ‘warm’, instead of a hot, temperature
- Inadequate re-heating – not hot enough for long enough all through the food