Food Safety 101

Basics of Foodborne Illness a.k.a. Food Poisoning

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DID YOU KNOW?

Every year in the world

- An estimated 600 million, almost 1 in 10 people fall ill after eating contaminated food (foodborne illness)

-420,000 people die

-125,000 deaths are children under five years

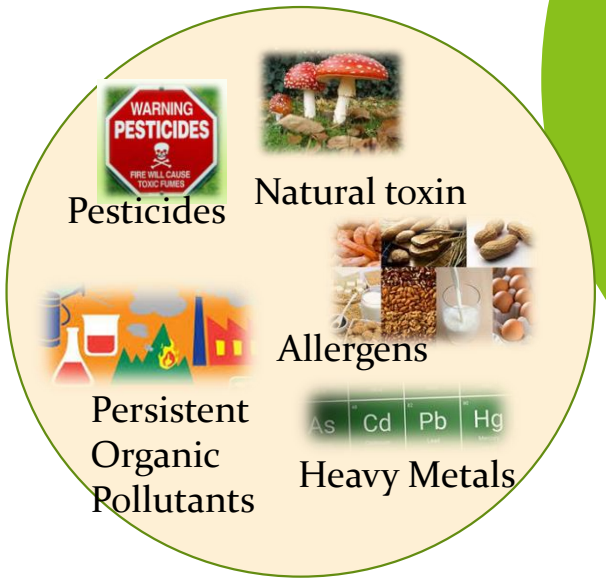
Diarrhoeal illness is 1 of the top 10 global causes of death

In Malaysia, about 50% of foodborne illnesses are due to improper food handling

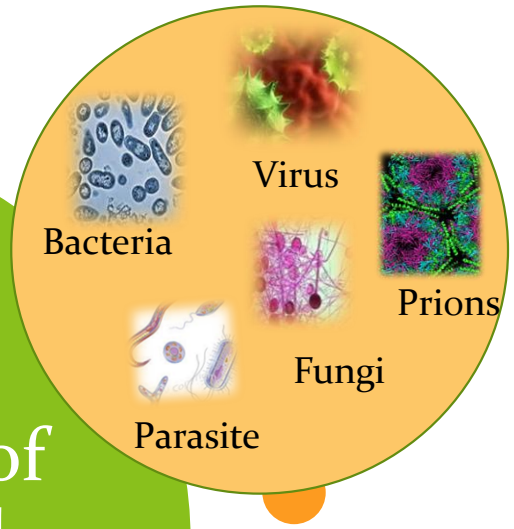
Source: World Health Organization; Malaysia Ministry of Health Annual Report 2014

Foodborne Illnesses sometimes called "*food poisoning*" are usually infectious or toxic in nature caused by certain microorganisms or chemical substances entering the body through consumption of contaminated food and drinks.

Harmful Toxins and Chemicals



Consumption of contaminated food and drinks



Microorganisms and toxins

-Disease causing ones are known as pathogens

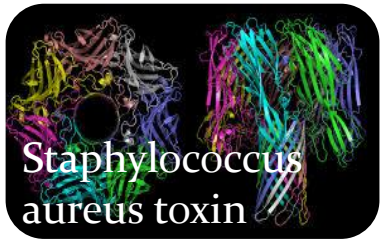
Food may look taste and smell normal

Types of Foodborne Illness

Typhoid

Cholera

Dysentery



Food poisoning
-bacteria and chemical toxin

Microorganisms that cause illnesses are known as pathogens. As there are many types of pathogens, there are also different types of foodborne illnesses. Some of the common foodborne illnesses and infections are listed here.

Contamination of food can happen at any point in food production, preparation, service or even at home. The transfer of microorganisms from one surface to another, known as cross-contamination can also occur and is a common cause of food poisoning. Below are some common pathogens and food sources linked to them.

Staphylococcus aureus

- Foods that are not cooked after handling such as sliced meats, pastries, sandwiches

Salmonella

- Raw or undercooked chicken and meat, eggs, raw milk, raw fruits and vegetables. Can be spread by knives, cutting surfaces or an infected food handler.

Vibrio vulnificus

- Raw or undercooked shellfish, oysters. Can be spread through contaminated sea water

Norovirus

Raw, ready-to-eat produce and shellfish from contaminated water. Can be spread by an infected food handler.

Parasites- Taenia solium, Trichinella, Anisakis, Cryptosporidium

- Undercooked pork, raw fish, milk, contaminated water

Food poisoning symptoms may range from mild to severe depending on the illness. It usually consists of one or more of the following signs and symptoms:

Stomach upset

Stomach cramps

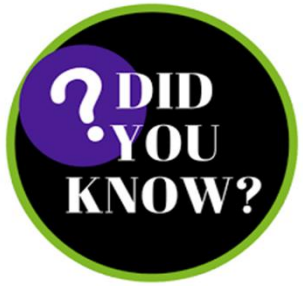
Nausea

Vomiting

Diarrhoea

Fever

Death



It may take hours or days before you developing symptoms after consumption of contaminated food or drink

Drink plenty of fluids to prevent dehydration if you experience symptoms of food poisoning, such as diarrhea or vomiting.

Symptoms generally last for a few hours to several days. Most people get better without seeking medical treatment, but those with severe symptoms such as bloody stools, fever more than 38 ^{o}C, signs of dehydration, neurological symptoms of blurry vision, muscle weakening, etc. should seek medical treatment.

The chances of you becoming ill after eating contaminated food depends on the type of microorganism, the amount ingested, your age and your health. Some people have higher risk of foodborne illness. They are:

- Infants
- Younger children
- People who are already weakened by another disease or by treatment for a disease
- Pregnant women
- Older adults

How can you therefore prevent food contamination?

Improper food preparation and poor handling of foods are the major causes of food contamination. Food handlers in eating establishments and consumers at home play an important role in making food safe for consumption. One of the important factors is practising good food hygiene and safety.

1 Keep clean

- Wash your hands before and during food preparation
- Wash your hands after going to the toilet
- Wash and sanitise all surfaces used for food preparation
- Protect kitchen areas and surfaces from insects and pests

WHY?

Pathogens are widely found in soil, water, animals and people. So they are carried on hands, wiping cloths and utensils, which can be transferred to food.

Source: World Health Organization

2

Separate raw and cooked

- Separate raw meat, seafood and poultry from other foods
- Use separate equipment and utensils for handling raw foods
- Store food in containers to avoid contact between raw and prepared foods

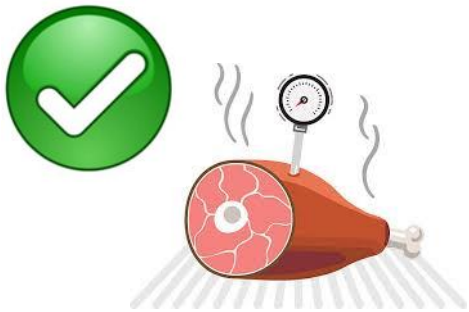
WHY?

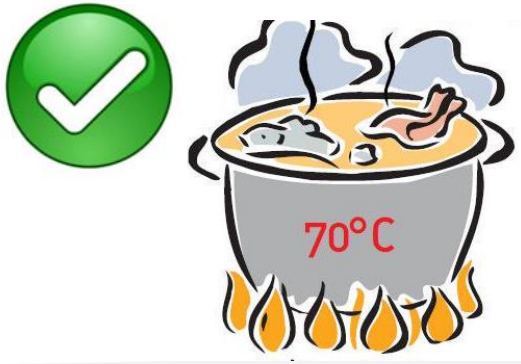
Raw food, especially meat, poultry and seafood, and their juices, can contain pathogens which may be transferred onto other foods during food preparation and storage.

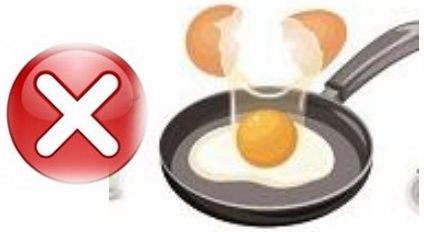
Source: World Health Organization

3 Cook thoroughly

- Cook food thoroughly especially meat, poultry , eggs and seafood
- Bring food like soups and stews to boiling to make sure they reach 70°C
- For meat and poultry, make sure juices are clear not pink
- Ideally, use a thermometer
- Re-heat cooked food thoroughly







Undercooked egg

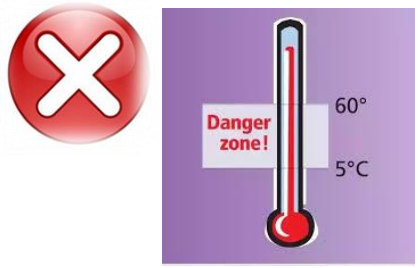
WHY?

Proper cooking kills almost all pathogens. Studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption.

Source: World Health Organisation

4
Keep food at safe temperatures

- Do not leave cooked food at room temperature for more than two hours
- Refrigerate promptly all cooked and perishable food (preferably below 5°C)
- Keep cook food hot prior to serving (above 60°C)
- Do not store food too long even in the refrigerator
- Do not thaw frozen food at room temperature



WHY?

Microorganisms can multiply very quickly if food is stored at room temperature. By holding at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous microorganisms still grow below 5°C.

Source: World Health Organization

5
Use safe water and raw materials

- Use safe water or treat it to make it safe
- Select fresh and wholesome fruits
- Choose foods processed for safety eg. pasteurised milk
- Do not use food beyond its expiry date

WHY?

Raw materials, including water and ice, may be contaminated with pathogens and chemicals. Toxic chemicals may be formed in damaged and mouldy foods.

Source: World Health Organization

In conclusion, food contamination can easily occur and the consequences are unpleasant and can be deadly. However, it can be prevented by good hygiene practices such as following the WHO's 5 simple steps. Everyone can play a role …from farm to fork.

Watch out for more food safety tips on www. ucsi 1 card.com