

Basic Sanitation

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Foodborne Illness

- Disease transmitted to people by food



- Foodborne illness outbreak is an incident in which two or more people get the same illness after eating the same food

Who is at Risk?

- Elderly people
- Infants and preschool-age children
- Pregnant women
- People with cancer or undergoing chemotherapy
- People with HIV/AIDS
- Transplant recipients

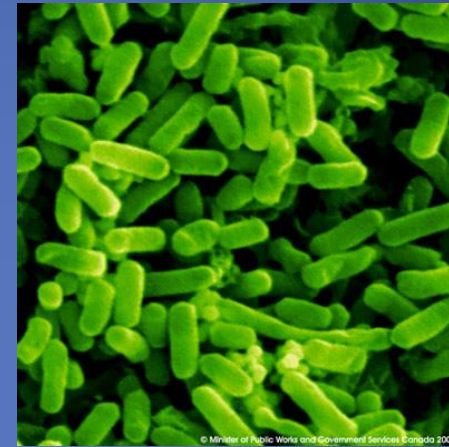
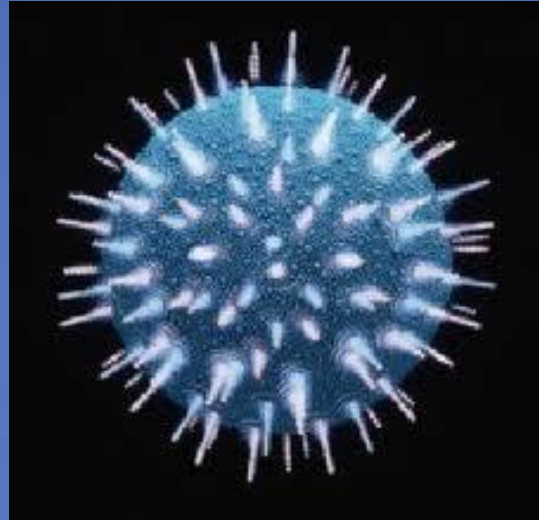


Types of Hazards

- Biological
- Physical
- Chemical

Biological Hazards

- Viruses
- Bacteria
- Parasites
- Fungi



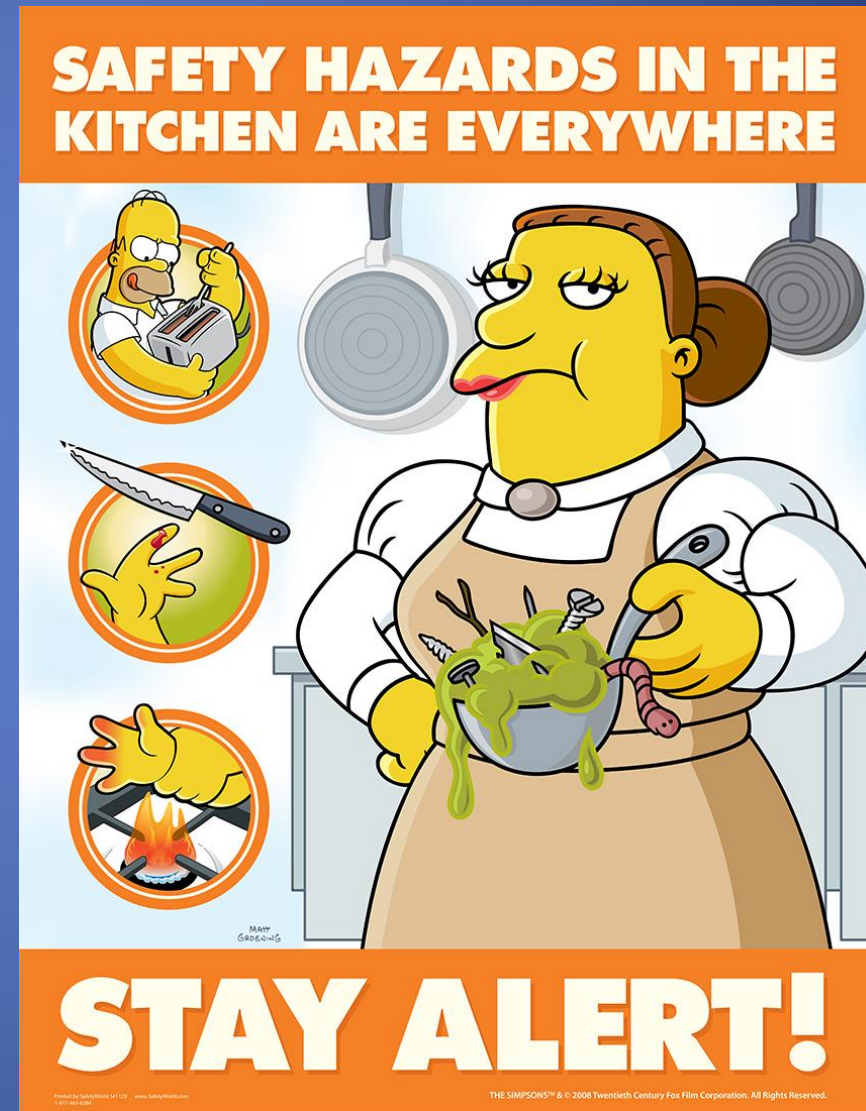
Chemical Hazards

- Cleaners
- Sanitizers
- Polishes
- Machine lubricants
- Toxic metals



Physical Hazards

- Hair
- Dirt
- Bandages
- Metal staples
- Broken glass
- Natural objects
(e.g., fish bones in a fillet)



The Microworld

- Microorganism
 - Small, living organism
- Pathogen
 - Harmful microorganism
- Toxin
 - Poison



Types of Pathogens

- **Viruses**
 - Hepatitis A
 - Norovirus gastroenteritis
- **Bacteria**
 - Botulism
 - Salmonellosis
 - Staphylococcal gastroenteritis
- **Parasites**
 - Cryptosporidiosis
 - Giardiasis
- **Fungi**
 - Molds and Yeasts



Viruses can..

- Survive cooler and freezer temperatures
- Contaminate food and water
- Grow in the intestines, but not in food
- Be transmitted from:
 - Person to person
 - People to food
 - People to food-contact surfaces

Bacteria Characteristics

- Most are controlled by keeping food out of the temperature danger zone (41F-135F)
- Will grow rapidly if conditions are right
- Some can change into spores to keep from dying when they don't have enough food
- Some make toxins in food as they grow and die

Parasites

- Cannot survive in cooked food
- Need to be in the meat of another animal to survive (cows, chickens, pigs, fish)
- Can be found in the feces of animals and people
- Can contaminate food and water, particularly water used to irrigate produce
- Will cause illness if eaten

Fungi

Molds

- Spoil food and sometimes cause illness
- Grow well in acidic food with little moisture
- Are not destroyed by cooler or freezer temperatures
 - Can produce toxins such as aflatoxins

Yeasts

- Can spoil food quickly
- May produce a smell or taste of alcohol as it spoils food
- May look like a white or pink discoloration or slime and may bubble
 - Grow well in acidic food with little moisture

Focus on These Measures

- Controlling time and temperature
- Preventing cross-contamination
- Practicing good personal hygiene
- Purchasing from approved, reputable suppliers

