



## PUDUCHERRY ENVIS HUB

Host Centre: Puducherry Pollution Control Committee

Funded by Ministry of Environment, Forest & Climate Change  
Government of India, New Delhi



# World

7<sup>th</sup> June, 2021

# FOOD SAFETY DAY

Theme


"Safe food today for a  
healthy tomorrow"

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# World Food Safety Day 2021

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## Theme

**'Safe food today for a healthy tomorrow'**

World Food Safety Day observance on 7<sup>th</sup> June, 2021 aims to draw attention and inspire action to help prevent, detect and manage food-borne risks, contributing to food security, human health, economic prosperity, agriculture, market access, tourism and sustainable development.

## What is food safety

Food safety is the absence of acceptable and safe levels of hazards in food that can harm consumers' health. The hazards posed by food can be microbiological, chemical, or physical and invisible to the naked eye. Examples are bacterial, viral, or pesticide contaminants.

Food safety plays a crucial role in ensuring food safety at every stage of the food chain, from production to harvesting, processing, storage, distribution, preparation, and consumption.

Lack of food safety can be detrimental to the health of consumers. Therefore, World Food Safety Day is celebrated every year to mark the importance of food safety.

## Why improving food safety is important

Access to sufficient amounts of safe food is key to sustaining life and promoting good health. Foodborne illnesses are usually infectious or toxic in nature and often invisible to the plain eye, caused by bacteria, viruses, parasites or chemical substances entering the body through contaminated food or water.

Food safety has a critical role in assuring that food stays safe at every stage of the food chain - from production to harvest, processing, storage, distribution, all the way to preparation and consumption.

With an estimated 600 million cases of foodborne illnesses annually, unsafe food is a threat to human health and economies, disproportionately affecting vulnerable and marginalized people, especially women and children, populations affected by conflict, and migrants. An estimated 420 000 people around the world die every year after eating contaminated food and children under 5 years of age carry 40% of the foodborne disease burden, with 125 000 deaths every year.

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The World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO) jointly facilitate the observance of World Food Safety Day, in collaboration with Member States and other relevant organizations. This international day is an opportunity to strengthen efforts to ensure that the food we eat is safe, mainstream food safety in the public agenda and reduce the burden of foodborne diseases globally.

## **Food safety is everyone's business**

The way in which food is produced, stored, handled and consumed affects the safety of our food. Complying with Global food standards, establishing effective regulatory food control systems including emergency preparedness and response, providing access to clean water, applying good agriculture practices (terrestrial, aquatic, livestock, horticulture), strengthening the use of food safety management systems by food business operators, and building capacities of consumers to make healthy food choices are some ways in which governments, international organizations, scientists, the private sector and civil society work to ensure food safety.

Food safety is a shared responsibility between governments, producers and consumers. Everybody has a role to play from farm to table to ensure the food we consume is safe and will not cause damages to our health.

## Key facts

- 1.** Access to sufficient amounts of safe and nutritious food is key to sustaining life and promoting good health.
- 2.** Unsafe food containing harmful bacteria, viruses, parasites or chemical substances, causes more than 200 diseases – ranging from diarrhoea to cancers.
- 3.** An estimated 600 million – almost 1 in 10 people in the world – fall ill after eating contaminated food and 420 000 die every year, resulting in the loss of 33 million healthy life years (DALYs).
- 4.** Children under 5 years of age carry 40% of the foodborne disease burden, with 125 000 deaths every year.
- 5.** Diarrhoeal diseases are the most common illnesses resulting from the consumption of contaminated food, causing 550 million people to fall ill and 230 000 deaths every year.
- 6.** Food safety, nutrition and food security are inextricably linked. Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and the sick.
- 7.** Foodborne diseases impede socioeconomic development by straining health care systems, and harming national economies, tourism and trade.



# Major foodborne illnesses and causes

Foodborne illnesses are usually infectious or toxic in nature and caused by bacteria, viruses, parasites or chemical substances entering the body through contaminated food or water.

Foodborne pathogens can cause severe diarrhoea or debilitating infections including meningitis.

Chemical contamination can lead to acute poisoning or long-term diseases, such as cancer. Foodborne diseases may lead to long-lasting disability and death. Examples of unsafe food include uncooked foods of animal origin, fruits and vegetables contaminated with faeces, and raw shellfish containing marine biotoxins.

## **Bacteria:**

***Salmonella*, *Campylobacter*, and *Enterohaemorrhagic Escherichia coli*** are among the most common foodborne pathogens that affect millions of people annually – sometimes with severe and fatal outcomes. Symptoms are fever, headache, nausea, vomiting, abdominal pain and diarrhoea. Examples of foods involved in outbreaks of salmonellosis are eggs, poultry and other products of animal origin. Foodborne cases with *Campylobacter* are mainly caused by raw milk, raw or undercooked poultry and drinking water. *Enterohaemorrhagic Escherichia coli* is associated with unpasteurized milk, undercooked meat and fresh fruits and vegetables.

***Listeria*** infection leads to miscarriage in pregnant women or death of newborn babies. Although disease occurrence is relatively low, *Listeria*'s severe and sometimes fatal health consequences, particularly among infants, children and the elderly, count them among the most serious foodborne infections. *Listeria* is found in unpasteurised dairy products and various ready-to-eat foods and can grow at refrigeration temperatures.

***Vibrio cholerae*** infects people through contaminated water or food. Symptoms include abdominal pain, vomiting and profuse watery diarrhoea, which may lead to severe dehydration and possibly death. Rice, vegetables, millet gruel and various types of seafood have been implicated in cholera outbreaks.

Antimicrobials, such as antibiotics, are essential to treat infections caused by bacteria. However, their overuse and misuse in veterinary and human medicine has been linked to the emergence and spread of resistant bacteria, rendering the treatment of infectious diseases ineffective in animals and humans.

Resistant bacteria enter the food chain through the animals (e.g. Salmonella through chickens). Antimicrobial resistance is one of the main threats to modern medicine.

## **Viruses:**

Norovirus infections are characterized by nausea, explosive vomiting, watery diarrhoea and abdominal pain. Hepatitis A virus can cause long-lasting liver disease and spreads typically through raw or undercooked seafood or contaminated raw produce. Infected food handlers are often the source of food contamination.

## *Parasites:*

Some parasites, such as fish-borne trematodes, are only transmitted through food. Others, for example tapeworms like Echinococcus spp, or Taenia solium, may infect people through food or direct contact with animals. Other parasites, such as Ascaris, Cryptosporidium, Entamoeba histolytica or Giardia, enter the food chain via water or soil and can contaminate fresh produce.

## *Prions:*

Prions, infectious agents composed of protein, are unique in that they are associated with specific forms of neurodegenerative disease. Bovine spongiform encephalopathy (BSE, or "mad cow disease") is a prion disease in cattle, associated with the variant Creutzfeldt-Jakob Disease (vCJD) in humans. Consuming bovine products containing specified risk material, e.g. brain tissue, is the most likely route of transmission of the prion agent to humans.

## **Chemicals:**

Of most concern for health are naturally occurring toxins and environmental pollutants.

**Naturally occurring toxins** include mycotoxins, marine biotoxins, cyanogenic glycosides and toxins occurring in poisonous mushrooms. Staple foods like corn or cereals can contain high levels of mycotoxins, such as aflatoxin and ochratoxin, produced by mould on grain. A long-term exposure can affect the immune system and normal development, or cause cancer.

**Heavy metals** such as lead, cadmium and mercury cause neurological and kidney damage. Contamination by heavy metal in food occurs mainly through pollution of air, water and soil.

**Persistent organic pollutants (POPs)** are compounds that accumulate in the environment and human body. Known examples are dioxins and polychlorinated biphenyls (PCBs), which are unwanted by-products of industrial processes and waste incineration. They are found worldwide in the environment and accumulate in animal food chains. Dioxins are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and cause cancer.

*Let your food be your medicine, and your medicine be your food.*

**- Hippocrates**

