



## Food Poisoning Microorganisms: A Synopsis

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### DESCRIPTION

Viruses, bacteria, and parasites are biological entities that can be present in almost every environment. They can be found in both water and soil. They can be found on the surfaces of the things we consume. Bacteria, viruses, and parasites are all capable of causing a variety of ailments. They have the ability to infect any organ in the body. Respiratory ailments like the common cold and intestinal illnesses like diarrhea are frequently caused by viruses. Bacteria have the ability to infect any region of the body. When they enter the digestive tract, however, they frequently induce diarrhea. Foodborne illness is a constant threat that can be avoided by properly handling and caring for food. Food-borne diarrhea sickness affects between 25 million and 80 million individuals in the United States each year, costing between \$ 5 billion and \$ 17 billion in medical costs and lost productivity.

Food poisoning can be caused by chemicals, heavy metals, parasites, fungus, viruses, and bacteria. Food poisoning caused by bacteria is the most prevalent, but only around 20% of the thousands of different bacteria are responsible. *Staphylococcus aureus*, *Salmonella*, *Clostridium perfringens*, *Campylobacter*, *Listeria monocytogenes*, *Vibrio parahaemolyticus*, *Bacillus cereus*, and Enteropathogenic *Escherichia coli* cause more than 90% of food poisoning cases each year. These bacteria can be found on a variety of raw foods. In order to induce sickness, a significant number of food-poisoning bacteria must be present. As a result, disease can be avoided by reducing the initial number of bacteria present, preventing the tiny number from multiplying, properly cooking to kill the germs, and avoiding re-contamination.

Contamination of raw and cooked meals is caused by poor personal hygiene, inappropriate cleaning of storage and preparation spaces, and unclean utensils. Bacteria can thrive when raw and cooked foods are handled improperly. Most bacteria can grow at temperatures range from 30°F (6°C)-145°F (65°C). Foods, both raw and cooked, should not be stored in

this risk zone for longer than required. Food poisoning can be caused by undercooking or incorrect processing of home-canned foods. Because food-poisoning bacteria are commonly found on a wide range of foods, understanding their features is critical to a successful management program.

Viruses infiltrate your body's natural cells NIH external link. Viruses can cause infections that can be passed from one person to the next. When water comes into contact with infected people's faeces, it can become contaminated with a virus. Contaminated water has the potential to transfer the infection to foods. For example, the virus can spread to produce if contaminated water is used to water or wash it. Shellfish that had been exposed to contaminated water could also carry a virus. People who are afflicted with a virus may spread the illness to the foods they cook or handle. Norovirus NIH external link and hepatitis A are two common viruses that cause food poisoning.

### CONCLUSION

A parasite is a sort of germ (or bacterium) that survives on or within a living creature, such as humans. Many animals, such as cats, pigs, and cattle, have them in their digestive systems, but they can also be found in water-based ecosystems such as lakes, ponds, and rivers. These parasites are single-celled organisms or a form of tapeworm that feed on the blood or other nutrients in the small intestine, causing inflammation. Parasites can induce food poisoning, but this is a rare occurrence. Drinking unclean water or eating contaminated food is the most common way for the virus to spread. This sort of food poisoning is more common in developing countries than it is in developed countries. However, one form of parasite known as 'toxoplasma' causes food poisoning in the United Kingdom, and it includes *Toxoplasma*, *Giardia*, *Cryptosporidium*, and *Entamoeba histolytica*.

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**Received:** 26-May-2022, Manuscript No. JMBT-22-17092; **Editor assigned:** 30-May-2022, Pre QC No. JMBT-22-17092 (PQ); **Reviewed:** 13-Jun-2022, QC No JMBT-22-17092; **Revised:** 20-Jun-2022, Manuscript No. JMBT-22-17092 (R); **Published:** 27-Jun-2022, DOI: 10.35248/2157-7560.22.14.504.

**Citation:** Palo D (2022) Food Poisoning Microorganisms: A Synopsis. J Microb Biochem Technol. 14:504.

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