

Introduction to Food Safety

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DESCRIPTION

Food safety (or food hygiene) is a scientific method/discipline that describes how to handle, prepare, and store food in order to avoid food-borne illness. A food-borne disease outbreak occurs when two or more cases of a similar illness occur as a result of the consumption of a common food. This includes a number of routines that must be followed in order to avoid potential health risks. As a result, food safety frequently overlaps with food defense to protect consumers. This line of thought has two tracks: safety between industry and market, and then safety between market and consumer. When it comes to market-to-consumer practices, the common assumption is that food should be safe in the market, and the main concern is safe delivery and preparation of the food for the consumer. Food can transmit pathogens, which can cause illness or death in humans or other animals. Bacteria, viruses, mould, and fungus are the most common pathogens. Pathogens can use food as a growth and reproduction medium. Food preparation standards are intricate in developed countries, whereas less developed countries have fewer standards and less enforcement of those standards. Nonetheless, in the United States in 1999, foodborne pathogens were responsible for 5,000 deaths per year. Another major issue is the lack of adequate safe water, which is usually a critical factor in the spread of diseases. In theory, food poisoning is completely avoidable. However, due to the number of people involved in the supply chain, as well as the fact that pathogens can be introduced into foods regardless of how many precautions are taken, this cannot be accomplished. According to WHO, the five key principles of food hygiene are: Prevent pathogens from spreading from people, pets, and pests from contaminating food.

Separate raw and cooked foods to avoid cross-contamination. To kill pathogens, cook foods for the appropriate amount of time and at the appropriate temperature. Food should be stored at the proper temperature. Use only safe water and raw materials. Proper storage, sanitary tools and work environments, heating and cooling to appropriate temperatures, and avoiding contact with other uncooked foods can all help to reduce the risk of contamination. Tightly sealed water and airtight containers are good ways to reduce the possibility of physical and biological contamination during storage. Using clean, sanitary surfaces and tools that are free of debris, chemicals, standing liquids, and other food types (different from the type currently being prepared, such as mixing vegetables/meats or beef/poultry) can help reduce the possibility of all forms of contamination. Even if all precautions have been taken and the food has been properly prepared and stored, bacteria can still form during storage. Food should be consumed within one to seven (1-7) days if stored in a cold environment, or within one to twelve (1-12) months if frozen (if it was frozen immediately after preparation).

CONCLUSION

The amount of time it takes for a food to become unsafe to eat is determined by the type of food, the surrounding environment, and other factors. For example, liquid foods like soup kept in a hot slow cooker (149°F or 65°C) may only last a few hours before contamination, whereas fresh meats like beef and lamb frozen quickly (-2°C) can last up to a year. If it is close to wildlife, the geographical location can also be a factor. If a container or prep area is left unattended, animals such as rodents and insects can infiltrate it. Any food that has been stored in an exposed environment should be thoroughly inspected before consumption.

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Received: 04-Oct-2022, Manuscript No. JFMSH-22-27754; **Editor assigned:** 06-Oct-2022, PreQC No. JFMSH-22-27754 (PQ); **Reviewed:** 20-Oct-2022, QCNo. JFMSH-22-27754; **Revised:** 27-Oct-2022, Manuscript No. JFMSH-22-27754 (R); **Published:** 03-Nov-2022, DOI: 10.35248/2476-2059.22.7.177.

Citation: Harrison D (2022) Introduction to Food Safety. J Food Microbial Saf Hyg. 7:177

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