

Food safety (or food hygiene) is used as a scientific method/discipline describing handling, preparation, and storage of food in ways that prevent foodborne illness. The occurrence of two or more cases of a similar illness resulting from the ingestion of a common food is known as a foodborne disease outbreak. This includes a number of routines that should be followed to avoid potential health hazards. In this way, food safety often overlaps with food defense to prevent harm to consumers. The tracks within this line of thought are safety between industry and the market and then between the market and the consumer. In considering industry-to-market practices, food safety considerations include the origins of food including the practices relating to food labeling, food hygiene, food additives and pesticide residues, as well as policies on biotechnology and food and guidelines for the management of governmental import and export inspection and certification systems for foods. In considering market-to-consumer practices, the usual thought is that food ought to be safe in the market and the concern is safe delivery and preparation of the food for the consumer. Food safety, nutrition and food security are closely related. Unhealthy food creates a cycle of disease and malnutrition that affects infants and adults as well.

Food can transmit pathogens which can result in the illness or death of the person or other animals. The main types of pathogens are bacteria, viruses, parasites, and fungus. Food can also serve as a growth and reproductive medium for pathogens. In developed countries there are intricate standards for food preparation, whereas in lesser developed countries there are fewer standards and less enforcement of those standards. Even so, in the US, in 1999, 5,000 deaths per year were related to foodborne pathogens. Another main issue is simply the availability of adequate safe water, which is usually a critical item in the spreading of diseases. In theory, food poisoning is 100% preventable. However this cannot be achieved due to the number of persons involved in the supply chain, as well as the fact that pathogens can be introduced into foods no matter how many precautions are taken.

In the present book, fifteen typical literatures about Food Safety published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on Food Safety. We hope this book can demonstrate advances in Food Safety as well as give references to the researchers, students and other related people.¹

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¹ https://en.wikipedia.org/wiki/Food_safety