

Food Safety: Key issues and remediation strategies

Manju Bazard and Bhupender S. Khatkar

Guru Jambheshwar University of Science and Technology, India

Food safety is a scientific discipline involving the handling, preparation and storage of food in ways that prevent food borne illness. Food can transmit disease from person to person as well as serve as a growth medium for microorganisms which cause food poisoning. The global importance of food safety is not fully appreciated by many public health authorities despite a constant increase in the prevalence of food borne illness. Numerous devastating outbreaks of salmonellosis, cholera, enterohaemorrhagic infections, hepatitis A and other diseases have occurred in both industrialized and developing countries. An overarching theme is that food safety is important only to the extent that it affects public health. Human pathogens can be found in food of all kinds, from meat and poultry, to fish and shellfish, to fruits and vegetables. These food borne pathogens are acquired on the farm, before the food even reaches processing facilities, distribution networks, businesses, and homes. Unfortunately, pathogens acquired during preharvest cannot always be inactivated by meticulous food handling or cooking raw. In some instances, pathogen numbers may actually increase after processing (post-harvest) and during transportation, storage, and retail. New technologies, such as genetic engineering, irradiation of food, ohmic heating and modified- atmosphere packaging, can be used to extend shelf life and make food safer. Risk assessment is also a valuable tool in evaluating the trade-offs between implementing interventions to prevent the transmission of foodborne pathogens and the payoffs in improving human health.

Biography

Manju completed her Masters in Food Technology at the age of 23 years from Guru Jambheshwar University of Science and Technology, Hisar. She has been involved in food analysis and quality assurance at NABL Accredited Labs for the past 4 years. She has also served as Technical manager (Food Division) at Ozone Pharmaceuticals Ltd., New Delhi. Presently, she is pursuing PhD from GJUS&T, Hisar.

manjubazard@yahoo.com