A systematic review: Food poisoning.

Noriko Kubota*

Department of Biotechnology, College of Science, University of Tehran, Tehran, Iran

Abstract

Acute illness brought on by recently consuming contaminated food or drink is known as food poisoning. It may or may not be contagious. Eating food or drinking water contaminated with bacteria, viruses, parasites or their toxins can result in infectious food poisoning. It is also referred to as a food-borne illness. Food poisoning is most frequently characterized by nausea, vomiting, cramping in the abdomen, and diarrhea. Fever and stomach ache are possible additional symptoms. An outbreak of food poisoning occurs when there are two or more cases of a comparable foodborne illness brought on by consumption of a common meal. The bacteria Norvirus, *Salmonella, Clostridium perfringens, Campylobacter* and *Staphylococcus aurous* are the most frequent causes of food poisoning.

Keywords: Food poisoning, Bacteria, Viruses, *Staphylococcus aurous*.

Introduction

Food borne illness is a constant danger that can be avoided by treating food products with care. Food borne diarrhoea sickness is thought to affect 24 to 81 million people in the US annually, costing between $5 billion and $17 billion in medical expenses and lost productivity. Contamination of raw and cooked foods results from poor personal hygiene, insufficient cleaning of storage and preparation locations and unclean equipment. Bacteria can flourish when raw and cooked meals are handled improperly [1].

Staphylococcus aureus

S. aureus is frequently found in the skin, respiratory passageways, and superficial wounds of humans. *S. aureus* can create a toxin that is harmful if it is allowed to grow in food. Cooking kills the bacterium, but the poison it produces may not be destroyed because it is heat stable. The majority of times, meals that require manual preparation, like potato salad, ham salad and sandwich spreads, are the source of staphylococcal food poisoning. These kinds of foods are occasionally kept at room temperature for extended periods of time, which allows the bacteria to multiply and create toxins. *S. aureus* can be avoided by practising good personal hygiene while handling food, and raw and cooked foods should be refrigerated to stop the growth of any existing bacteria [2].

Salmonella

Salmonella frequently enters the human and animal gastrointestinal tracts. *Salmonella* is most frequently linked to high-protein meals including meat, poultry, fish and eggs. Salmonellosis, however, can be brought on by any infected food that is then stored at an unsanitary temperature. Cooking temperatures exceeding 150 degrees F kill *salmonella*. Salmonellosis is primarily brought on by tainted cooked food and inadequate cooking. Contact with surfaces or utensils that were not thoroughly cleaned following usage with raw materials can contaminate cooked goods. If *salmonella* is found in raw or cooked food, it can be kept from growing by refrigeration at or below 40 degrees Fahrenheit [3].

Clostridium perfringens

Dust, soil, and the gastrointestinal systems of both humans and animals all contain C. perfringens. When excessive amounts of *C. perfringens* are present in food, the bacteria create an illness-causing toxin in the intestinal system. Foods that are hot should be served right away or kept at or above 140 degrees F. Divide big quantities of gravies, meat dishes, etc. into smaller parts before refrigerating to help them chill more quickly. Prior to serving, the dish must be cooked to 165 degrees Fahrenheit.

Clostridium botulinum

Fewer than one of every 400 instances of food poisoning in the U.S. are caused by botulism, but two characteristics make it quite significant. *Cl. botulinum* is a heat-resistant spore that can grow in unprocessed, home-canned foods and release a neurotoxin. A contaminated food may exhibit spoiling symptoms like a bulging can or an unpleasant odour. Considering that this is not always the case, canned food shouldn't be sampled before heating. The food must be boiled for 10 minutes to eliminate the botulinum toxin [4].

Bacillus cereus

Spices, dirt, and dust all contain *B. cereus*. If the storage

***Correspondence to**: Noriko Kubota, Department of Biotechnology, College of Science, University of Tehran, Tehran, Iran, E-mail: kubota@ut.ac.ir

***Received:** 26-Oct-2022, Manuscript No. AAFMY-22-81574; **Editor assigned**: 28-Oct-2022, PreQC No. AAFMY-22-81574(PQ); **Reviewed**: 14-Nov-2022, QC No AAFMY-22-81574; **Revised**: 16-Nov-2022, Manuscript No. AAFMY-22-81574(R); **Published**: 23-Nov-2022, DOI:10.35841/aafmy-6.6.128*

***Citation:** Kubota N. A systematic review: Food poisoning. J Food Microbiol. 2022;6(6):128*

temperature is off, it can survive conventional cooking as a heat-resistant spore and then develop a lot of cells. The most often involved foods are starchy foods including rice, macaroni, and potato dishes. Since the spores can survive high cooking temperatures, cooked dishes must be served hot or quickly cooled to stop the growth of these bacteria. The spores may be found on raw foods [5].

Conclusion

Make sure to maintain appropriate food and personal hygiene to avoid food illness. This entails keeping your kitchen spotless, washing your hands frequently, and preparing, cooking, and storing food according to recommended methods. The majority of cases of food poisoning are not dangerous and go away on their own within a few days. Try to rest and remain hydrated if you experience some of the symptoms listed above and think you may have food poisoning. Getting assistance from a pharmacist may also be beneficial because they can make drug recommendations to lessen your symptoms. Food poisoning can, however, sometimes be very serious. If you are worried, you should visit a doctor to get examined.

References

1. Studahl A, Andersson Y. Risk factors for indigenous campylobacter infection: A Swedish case-control study. Epidemiol Infect. 2000;125(2):269-75.
2. Elshafie S. An outbreak of food poisoning after a major sport event: The role of PulseNet International. J Med Microb Diagn. 2007;25(9):22-8
3. Nguyen AT, Tran BX, Le HT, at al. Customers' knowledge, attitude, and practices towards food hygiene and safety standards of handlers in food facilities in Hanoi, Vietnam. Int J Environ Res Public Health. 2018;15(10):2101.
4. Zyoud SE, Shalabi J, Imran K, at al. Knowledge, attitude and practices among parents regarding food poisoning: A cross-sectional study from Palestine. BMC public health. 2019;19(1):1-0.
5. Angelillo IF, Foresta MR, Scozzafava C, et al. Consumers and foodborne diseases: Knowledge, attitudes and reported behavior in one region of Italy. Int J Food Microbiol. 2001;64(1-2):161-6.

Citation: *Kubota N. A systematic review: Food poisoning. J Food Microbiol. 2022;6(6):128*