

## Food Contamination: Understanding the Risks and Prevention

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### DESCRIPTION

Food contamination is a serious issue that affects millions of people every year. It occurs when food becomes contaminated with harmful bacteria, viruses, parasites, or chemicals that can cause illness or even death. Contaminated food can cause food poisoning, which can lead to vomiting, diarrhoea, fever, and dehydration. Food contamination can occur at any stage of the food production process, from harvesting and processing to transportation and storage [1]. In this communication, we will discuss the causes and consequences of food contamination and offer some tips on how to prevent it.

### Causes of food contamination

There are several causes of food contamination, including poor food handling practices, environmental contamination, and natural contamination. Poor food handling practices, such as not washing hands before handling food or using dirty utensils, can introduce harmful bacteria into the food. Cross-contamination can also occur when bacteria from raw meat or other contaminated food comes into contact with other food [2]. Environmental contamination can occur when food is grown or raised in contaminated soil, water, or air. Natural contamination can occur when food is contaminated with harmful bacteria or viruses that are naturally present in the environment.

There are several ways in which food can become contaminated. Some of the most common causes include poor food handling practices, improper storage, and cross-contamination. Poor food handling practices can occur during the production, processing, packaging, or preparation of food. For example, food can become contaminated if it is not cooked to the appropriate temperature or if it is not handled with clean hands and utensils. Improper storage can also lead to food contamination, as food that is not stored at the appropriate temperature can quickly become a breeding ground for harmful bacteria [3]. Cross-contamination can occur when food comes into contact with surfaces, utensils, or other foods that are contaminated.

### Consequences of food contamination

The consequences of food contamination can range from mild symptoms, such as nausea and diarrhea, to more severe symptoms,

such as kidney failure or death [4]. Children, the elderly, and people with weakened immune systems are more vulnerable to the harmful effects of food contamination. In some cases, food contamination can lead to long-term health problems, such as chronic kidney disease or liver damage [5]. The consequences of food contamination can be severe, particularly for vulnerable populations such as children, pregnant women, and the elderly. In some cases, food contamination can lead to long-term health problems, such as chronic kidney disease or liver damage [6].

### Preventing food contamination

Preventing food contamination is essential to ensure the safety of the food we eat. Here are some tips on how to prevent food contamination:

**Practice good food hygiene:** Wash hands before and after handling food, cook food to the appropriate temperature, and store food at the correct temperature.

**Avoid cross-contamination:** Keep raw meats separate from other foods, and use separate cutting boards and utensils for different types of food.

**Be aware of the risks associated with certain types of food:** Raw or undercooked meat, poultry, and seafood are more likely to be contaminated with harmful bacteria than cooked meats. Raw fruits and vegetables can also be a source of contamination, particularly if they are not washed properly.

**Stay informed:** Pay attention to food recalls and alerts. If a food product has been recalled due to contamination, stop using it immediately and follow the instructions provided by the manufacturer or regulatory agency.

**Seek medical attention:** If experience symptoms of food poisoning, such as vomiting, diarrhea, fever, or dehydration, seek medical attention immediately. In some cases, food poisoning can be serious and require hospitalization [7].

One of the most effective ways to prevent food contamination is to practice good food hygiene. This means following basic food safety guidelines, such as washing your hands before and after handling food, cooking food to the appropriate temperature, and storing food at the correct temperature [8]. It is also important to

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avoid cross-contamination by keeping raw meats separate from other foods and using separate cutting boards and utensils for different types of food.

Another way to protect one self from food contamination is to be aware of the risks associated with certain types of food [9]. For example, raw or undercooked meat, poultry, and seafood are more likely to be contaminated with harmful bacteria than cooked meats. Raw fruits and vegetables can also be a source of contamination, particularly if they are not washed properly. Be sure to thoroughly wash all fruits and vegetables before consuming them.

In addition to practicing good food hygiene and being aware of the risks associated with certain types of food, it is important to pay attention to food recalls and alerts. If a food product has been recalled due to contamination, it is important to stop using it immediately and follow the instructions provided by the manufacturer or regulatory agency [10].

It is also important to seek medical attention if you experience symptoms of food poisoning, such as vomiting, diarrhoea, fever, or dehydration. In some cases, food poisoning can be serious and require hospitalization.

## CONCLUSION

In conclusion, food contamination is a serious issue that can have serious consequences for our health. However, by following basic food safety guidelines and being aware of the risks associated with certain types of food, we can protect ourselves and our loved ones from the risks of food contamination. If you suspect that you have been affected by food poisoning, seek medical attention immediately.

## REFERENCES

1. Suzana S, Wong F. Malnutrition among hospitalised geriatric patients. *Research Highlights UKM*. 2001.
2. Chau P, Lee HS, Tseng R, Downes J. Dietary habits, health beliefs, and food practices of elderly Chinese women. *J Am Diet Assoc*. 1990;9(4):579-581.
3. Fujita Y. Nutritional requirements of the elderly: A Japanese view. *Nutr Rev*. 1992;50:449-453.
4. Fukuda A, Usui M, Okamura M, Dong-Liang H, Tamura Y. The role of flies in the maintenance of antimicrobial resistance in farm environments. *Microb Drug Resist*. 2019;25(1):127-132.
5. Pava-Ripoll M, Pearson RE, Miller AK, Tall BD, Keys CE, Ziobro GC. Ingested *Salmonella enterica*, *Cronobacter sakazakii*, *Escherichia coli* O157: H7, and *Listeria monocytogenes*: Transmission dynamics from adult house flies to their eggs and first filial (F1) generation adults. *BMC Microbiol*. 2015;(15)1:1-2.
6. Macovei L, Miles B, Zurek L. Potential of houseflies to contaminate ready-to-eat food with antibiotic-resistant enterococci. *J Food Prot*. 2008;(71)2:435-439.
7. Pruijboom-Brees IM, Morgan TW, Ackermann MR, Nystrom ED, Samuel JE, Cornick NA, et al. Cattle lack vascular receptors for *Escherichia coli* O157: H7 Shiga toxins. *Proc Natl Acad Sci*. 2000;97(19): 10325-10329.
8. Bryan FL, Doyle MP. Health risks and consequences of *Salmonella* and *Campylobacter jejuni* in raw poultry. *J Food Prot*. 1995;58(3): 326-353.
9. Weijtens MJ, Bijker PG, van der Plas J, Urlings HA, Biesheuvel MH. Prevalence of campylobacter in pigs during fattening: An epidemiological study. *Vet Q*. 1993;15(4):138-143.
10. Dutta S, Rahman S, Azmi S, Prawez S, Kour N, Wani H. Pathomorphological changes in kidneys of slaughtered sheep and goats in Jammu region. *J Anim Res*. 2016;6(4):705-709.