

Food Hygiene: A Primer

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ABSTRACT

Food hygiene is fundamentally important. It plays a major role in ensuring food safety.

Poor food hygiene practice can lead to food poisoning. Food premises posting poor hygiene scores (as practiced in UK) will suffer negative economic effects as consumers choose to eat somewhere else. Food hygiene plays a key factor in at the production, preparation, handling, storage, and distribution of food. Hygiene practices are important, particularly in lower socio-economic households. This paper provides a primer on food hygiene.

KEYWORDS: *food hygiene, food safety, food contamination*

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INTRODUCTION

Food is a basic necessity for human existence. It consists of edible products such as meat, bread, eggs, and vegetables. Health and hygiene play a crucial role in our daily life. Poor hygiene procedures, such as inadequate food temperature, inadequate cooking, poor personal hygiene, and contaminated food and drinking water, have resulted in foodborne illness [1].

Food hygiene refers to the conditions and measures necessary to ensure the safety of food at all stages of the food chain. It is the set of practices associated with the preservation of health. It usually refers to contamination with microorganisms.

Hygiene has a long history in the literature. It has played a major role in human civilization. Religious laws, such as Moses' Law, and laws in the Koran, mainly concentrated on the provision of personal hygiene and played major roles in the lives of ancient peoples. The term "food hygiene" is not synonymous with the term "food safety", which the World Health Organization uses for all of the conditions and measures that are necessary mainly after and during storage, processing, distribution, and preparation of food to ensure that it is safe, and fit for human consumption.

FOOD HYGIENE PRACTICES

All personnel dealing with food are responsible for protecting food from contamination and handling food

hygienically. All managers and supervisors of food processes should have the working knowledge of food hygiene principles and practices. This applies to government officials, catering companies, restaurants, food handlers, farmers' markets, and consumers.

➤ Government:

Governments in various counties play an important role in developing food hygiene standards and enforcing them. Most governments are serious about protecting the health and safety of their people. They make a great effort to regularly inspect food establishments. For example, the UK Food Standards Agency (FSA) encourages food business to make the most of their food hygiene rating to help attract customers. The rating is shown in Figure 1 [2]. The Food Hygiene Rating Scheme (FHRS) was launched in November 2010 and is established in all local authorities across England, Wales and Northern Ireland. The Codex Alimentarius Commission (CAC) was established by FAO in 1961. Codex has more than 300 Codex standards, guidelines and other recommendations concerning food quality and safety. Codex standards and guidelines ensure that food products are of good quality and not harmful to the consumer. The Codex Committee on Food Hygiene was founded in 1963 and hosted by the US government. The Codex General Principles of Food Hygiene lay a firm foundation for ensuring food hygiene.



Figure1. Food hygiene rating in UK [2]



Figure3. Food hygiene for food handlers [4]

➤ **Food Industry:**

Good hygiene practises are essential in every industry, especially in the food industry. Standards of hygiene should be laid down and regulations drawn up to enforce them. Routine inspections on to the food businesses by trained inspectors or health practitioners (such as FDA inspectors) will encourage the maintenance of the highest general and personal hygienic standards and detect any deviation from the standards. Community-based training programs on food hygiene are one of the effective health intervention programs.

➤ **Food Handlers:**

A food handler is anyone whose work involves dealing with food. Food handlers may contaminate food. They should know how their actions can affect the safety of the food they handle. Food handlers are morally responsible for ensuring food safety throughout the chain of producing, processing, storage, and distribution. Food handlers should maintain a high degree of personal cleanliness. For example, they should wash their hands after using toilet facilities. Good personal hygiene can prevent food poisoning. Always make sure that you clean and sanitize a work area before preparing food. All kitchen equipment must be routinely cleaned. If you wear disposable gloves, change them regularly. Direct handling of food should be kept to a minimum. The cycle of bacterial transmission is shown in Figure 2 [3]. Food hygiene for food handlers is shown in Figure 3 [4].

➤ **Personal Hygiene:**

This refers to how you care for your body. This practice includes regular bathing, washing hands, brushing teeth, and proper grooming. Personal hygiene keeps your body healthy and can prevent illnesses. Building good personal hygiene habits takes commitment and a lifetime of learning. Eat slow food and avoid fast food if possible. Eat plenty of fruits and vegetables. Sleep for seven to eight hours each night and exercise regularly. Keeping good hygiene routines can protect the community from foodborne illness. Food businesses should establish policies and practices for personal hygiene. Refrigeration is important in reducing the risk of contamination of stored food. Access to clean water, sanitation, and hygiene can transform lives.

➤ **Environmental Hygiene:**

This deals potential sources of contamination from the environment. The environment is everything that surrounds us. It includes all the external conditions that can affect our health, life, and growth. Food production should not be done in areas with potentially harmful substances or using land with high heavy metal contaminants.

BENEFITS

Good personal hygiene is a prerequisite for good health. It is difficult for germs and parasites to enter the body if one has good hygiene habits. Hygienic food creates opportunities for international trade. A country that follows strict hygienic practices becomes known as a producer of safe food. Food hygiene is a growing priority within the food and catering industries, hotels, hospitals, the media and governing bodies.

The food business should be able to achieve the following benefits [5]:

1. Satisfied customers
2. Good reputation and therefore increased business
3. Increased shelf life of products
4. Compliance with the law
5. Good working conditions, higher staff morale, and lower staff turnover
6. Higher profits
7. Quality awards
8. Staff have increased pride in their work place and therefore increased staff morale
9. Less wastage

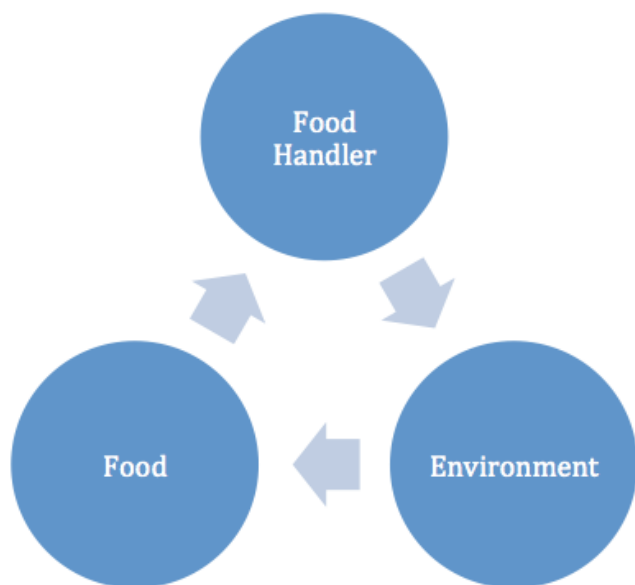


Figure 2 The cycle of bacterial transmission [3]

CHALLENGES

While it is widely recognized that food hygiene is determined by multiple behaviors, changing people's behavior can be very difficult. Behavior will not change unless motivation is extremely high. Any business operates to make money and may not put food hygiene on the same footing as profit. The mindset among some businesses is "food hygiene is something we do because the law demands it, not because the customer demands it"[6]. A major challenge is overcoming the apathy, ignorance, and confusion of those who may see little or no benefits in food hygiene.

Accurate assessment of restaurant hygiene can be challenging for consumers. Traditional approaches to food hygiene control such as legislation and inspections have been found inadequate. Regular training/retraining of all managers and food handlers, based upon the principles of the HACCP (hazard analysis and critical control point) system, offers a long-term solution [7].

CONCLUSION

Food hygiene is taking some measures to keep food safe and wholesome through all the stages of production to point of consumption. Government agencies, health authorities, and food businesses spend time and resources to ensure food is safe. Since poor food hygiene practices among food workers are a leading cause of food safety incidents education of managers and supervisors of food businesses is highly recommended [8]. Educating, training and promoting positive attitude of food handlers would improve the status of food hygiene knowledge and practices. More information on food hygiene can be found in books [9-14] and journals on food hygiene such as *British Food Journal*.

REFERENCES

- [1] H. C. Choi et al., "Food hygiene standard satisfaction of Singaporean diners," *Journal of Foodservice Business Research*, vol. 13, no. 3, 2010, pp. 156-177.
- [2] Food hygiene Certificate, <https://www.foodsafetyatwork.co.uk/about-us/food-hygiene-certificate/>
- [3] "Workplace sanitation," <https://opentextbc.ca/foodsafety/chapter/workplace-sanitation/>
- [4] "Food handler's hygiene food hygiene," <https://www.slideshare.net/mex1877/food-handlers-hygiene-food-hygiene>
- [5] "Introduction to food hygiene," https://www.safefood.eu/SafeFood/media/SafeFoodLibrary/Documents/Education/safefood%20for%20life/N1/section1_1.pdf
- [6] J. Leach, "Customer involvement in food hygiene," *Perspectives in Public Health*, vol. 130, no. 4, July 2010, pp. 163-164.
- [7] M. P. Mortlock, A. C. Peters, and C. J. Griffith, "A national survey of food hygiene training and qualification levels in the UK food industry," *International Journal of Environmental Health Research*, vol. 10, no. 2, 2000, pp. 111-123.
- [8] S. C. Powell, R. W. Attwell, and S. J. Massey, "The impact of training on knowledge and standards of food hygiene Eth a pilot study," *International Journal of Environmental Health Research*, vol.7, no. 4, 1997, pp. 329-334.
- [9] H. L. M. Lelieveld, J. T. Holah, and D. Napper, *Hygiene in Food Processing: Principles and Practice*. Woodhead Publishing, 2nd edition, 2014.
- [10] S. J. Forsythe and P. R. Hayes, *Food Hygiene, Microbiology and HACCP*. Springer Science Business Media, 1998.
- [11] H. L. M. Lelieveld et al. (eds.), *Hygiene in Food Processing*. Boca Raton, FL: CRC Press, 2004.
- [12] *Food Safety, Sanitation, and Personal Hygiene*. The BC Cook Articulation Committee, 2015.
- [13] G. Aston and J. Tiffney, *Food hygiene: A Guide to Improving Food Hygiene*. North-wood Publications Ltd., 1978.
- [14] C. Meggitt, *Food Hygiene and Safety: A Handbook for Care Practitioners*. Heinemann, 2003.