



FOOD PROTECTION CONNECTION

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# PRIORITIZING FOOD SAFETY IN SCHOOLS: AN ESSENTIAL APPROACH

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**FOOD SAFETY DIRECTLY IMPACTS** the health and well-being of people, so it is a topic of utmost importance. According to the U.S. Department of Agriculture (USDA), in the school year 2019, around 100,000 schools and institutions served a total of 4.9 billion lunches annually to around 29.6 million students each day. With millions of students consuming meals daily, schools have a responsibility to maintain high standards of food safety.

In the next few sections, we will explore the various aspects of food safety in schools—from the importance of proper handling to the role of regulations and the responsibility of stakeholders. Children are particularly vulnerable to foodborne pathogens, and an outbreak can have severe consequences. Ensuring food safety in schools is not merely a matter of providing healthy meals; it is about safeguarding the health of students and preventing foodborne illnesses.

## UNDERSTANDING FOODBORNE ILLNESSES

The U.S. Food and Drug Administration (FDA) reports that foodborne illness impacts about one out of six Americans each year. The FDA defines a **foodborne outbreak** as “an event when two or more people get the *same* illness from the *same* contaminated food or drink.” Whereas, a **foodborne illness** is often caused by “consuming food contaminated by bacteria, parasites, or viruses.”

The FDA has identified the top six most common and highly infectious foodborne pathogens, also known as the “Big 6,” to include Norovirus, Hepatitis A, Salmonella Typhi, Shigella spp., Shiga toxin-producing E. coli, and nontyphoidal Salmonella. When some people may think it’s the “stomach flu,” it may actually be a foodborne illness due to diarrhea and/or vomiting being its common symptoms typically lasting one to seven days. Other symptoms might include abdominal cramps, nausea, fever, and fatigue.

Making sure that the food served in school cafeterias is safe to eat involves a combination of rigorous practices, education, and complying with set regulations. The following are some key aspects of food safety in a school setting.

## SAFE FOOD HANDLING AND PREPARATION

Key principles of proper food handling and preparation of food for consumption are fundamental to preventing foodborne illnesses. School kitchens must follow strict protocols for preparing, cooking, holding, and serving food. Staff should be well-trained in food safety practices to minimize the risk of cross-contamination.



The CDC, Centers for Disease Control and Prevention, identified four basic food handling key steps that, when followed, can significantly decrease the risk of foodborne illness to ensure that the food is safe for consumption:

- 1. Clean:** This step emphasizes the importance of cleanliness. This includes proper hygiene, thorough hand washing techniques with soap and water, the correct use of gloves and aprons, and the upkeep of clean cooking surfaces.
- 2. Separate:** Separating foods is important in order to prevent cross-contamination, which occurs when harmful bacteria from one food item are transferred to another. This also entails the use of separate cutting boards for raw and cooked foods, and properly storing raw meats separately from ready-to-eat items.



### TOP 9 FOOD ALLERGENS

Milk

Eggs

Fish

Crustacean Shellfish

Tree Nuts

Peanuts

Wheat

Soybeans

Sesame



**3. Cook:** Cooking to the proper temperature is crucial to destroying harmful bacteria that may be present in food. The correct use of a food thermometer and knowing the safe minimum internal temperatures help ensure that harmful pathogens are destroyed.

**4. Chill:** This step focuses on the safe storage of perishable foods to prevent the growth of bacteria such as maintaining refrigeration temperatures between 32°F and 41°F (0°C to 5°C), freezer temperature 0°F (-18°C) or below, following storage best practices, proper labeling, and date marking.

### THE ROLE OF REGULATIONS AND STANDARDS

Did you know that schools follow similar food safety protocols to the protocols of NASA? Food safety regulations in school kitchens are governed by a combination of federal, state, and local regulations. While local and state regulations depend

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on location and jurisdiction, some general guidelines and regulations set are often applicable to school kitchens for food preparation, storage, and handling, as well as sanitation and hygiene practices. Schools must comply with these standards to minimize the risk of foodborne illnesses.

### Federal Regulations

The U.S. Department of Agriculture oversees the National School Lunch Program (NSLP) and the School Breakfast Program (SBP). These federal programs have specific regulations and guidelines for schools to follow related to food safety, menu planning, meal patterns, and procurement practices. Compliance with these regulations is a requirement for schools participating in these federal meal programs.

### State Regulations

States often have their own regulations related to food safety in school kitchens. State health departments provide a standardized framework for food safety across an entire state, which includes regulations for requirements for food

handler certifications, sanitation standards, and inspection procedures.

### Local Health Departments

Local health departments also play a crucial role in enforcing food safety regulations by addressing local concerns. Along with the state department, they conduct regular

45305 E9-21133, that was effective October 2, 2009 as a result of the Child Nutrition and WIC Reauthorization Act of 2004, states that schools participating in the federal lunch and breakfast programs “*must* obtain two health inspections per year, post the most recent inspection report in a visible location, and release a copy of the report to members of the public upon request.”

### Food Safety Plan

The Child Nutrition and WIC Reauthorization Act of 2004 requires school food authorities, also known as SFAs, participating in the National School Lunch Program and/or the School Breakfast Program to implement a food safety program for the preparation and service of school meals served to children. The school food safety program must comply with the Hazard Analysis and Critical Control Point (HACCP) system to take a “systematic approach to food safety that identifies and addresses potential hazards in the food production process.” Collaborating together in 1960, the National Aeronautics and Space Administration (NASA), the

**PROFESSIONAL  
STANDARDS**  
for school nutrition  
professionals is a key  
provision of the Healthy,  
Hunger-Free Kids Act of 2010  
(HHFKA).

inspections of school kitchens in their own jurisdiction to ensure compliance with both state and local health codes. Inspections cover areas such as food handling, storage, equipment maintenance, and sanitation. The Federal Registry’s final rule 74 FR

### ARTICLE REFERENCES

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- “The Federal Register.” School Food Safety Inspections, 2 Oct. 2009, [www.federalregister.gov/documents/2009/09/02/E9-21133/school-food-safety-inspections](http://www.federalregister.gov/documents/2009/09/02/E9-21133/school-food-safety-inspections)
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- Professional Standards for State and Local School Nutrition Programs Personnel as Required by the Healthy, Hunger-Free Kids Act of 2010, Federal Register, 2 Mar. 2015, [www.federalregister.gov/d/2015-04234](http://www.federalregister.gov/d/2015-04234)

Pillsbury Company, and the U.S. Army Laboratories introduced the HACCP system as an approach to provide safe food for the upcoming space expeditions, which is now used as a guideline for food safety initiatives.

### Food Safety Training

Professional Standards for school nutrition professionals is a key provision of the Healthy, Hunger-Free Kids Act of 2010 (HHFKA). The final rule, 80 FR 11077, published on March 2, 2015, requires a minimum amount of annual training hours for state directors of school nutrition programs, state directors of distributing agencies, school nutrition program directors, managers, and full- and part-time staff. Required training topic areas can vary depending on the position and job requirements, but overall training categories include: menu planning, operation, administration, communication, and marketing. Food safety training topics, which fall under operation, would include basic food handling practices, personnel hygiene, and HACCP.

### MANAGEMENT OF ALLERGIES

According to the CDC, allergies affect an estimated 1 in 13 children or 5.6 million under the age of 18 in the United States. A food allergy is defined by Boyce et al. (2010) as “a potentially life-threatening immunological

response that occurs reproducibly upon ingestion of the allergen” and has the potential to result in severe or even life-threatening allergic reactions. Managing allergies is a critical component of food safety in schools, and schools are starting to have written policies and procedures in place as food allergies continue to be a growing health concern. This includes proper labeling of the top 9 allergens (see sidebar) on menus, establishing procedures and protocols to prevent cross-contamination such as designating a separate preparation area, equipment and small-wares, educating staff on allergen awareness, and establishing equitable protocols to accommodate students with dietary restrictions.

### THE ROLE OF PARENTS AND GUARDIANS

Parents and guardians have a significant role in ensuring food safety at school. Effective two-way communication between families and the school is key to creating a collaborative, safe, and supportive environment for all students. It's important for families to inform the school about any dietary restrictions or allergies their children may have. Likewise, the school should regularly assess allergens in the school menu and make updates when substitutions need to be made.

### THE FUTURE OF FOOD SAFETY IN SCHOOLS

Technology and food safety practices continue to evolve in school settings to include improving temperature monitoring systems, implementing advanced kitchen equipment, adopting digital record-keeping systems, and enhancing staff training.

### WRAPPING IT UP

In summary, food safety in schools is not just a matter of compliance; it's a critical component of student health, learning outcomes, and community well-being. By implementing rigorous food safety standards and fostering a culture of awareness, schools demonstrate their commitment to the safety, health, and success of their students. This journey toward ensuring food safety is a shared one, requiring the collaborative efforts of educators, administrators, kitchen staff, and students themselves by building a fundamental foundation through developing policies and procedures, and providing continuous training to staff focusing on food safety. **E**



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## CE QUESTIONS | FOOD PROTECTION CONNECTION



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This **Level I SANITATION AND SAFETY** article assumes that the reader has introductory knowledge of the topic. The desired outcome is to ensure a basic understanding and explanation of the concepts of the subject matter and recalling of related facts.

Reading *Prioritizing Food Safety in Schools: An Essential Approach* and successfully completing these questions online in the ANFP Marketplace has been approved for 1 hour of sanitation continuing education for CDM, CFPPs. To earn 1 SAN CE hour, visit [www.ANFPonline.org/market](http://www.ANFPonline.org/market) and select **Edge CE Articles** within the Publications section. Purchase the article and complete the quiz.

1. What is the purpose of the Hazard Analysis and Critical Control Point (HACCP) system?
  - A. To create a space for food storage
  - B. To identify potential hazards in the food production process
  - C. To control the school's budget
2. In relation to training, the provision of the Healthy, Hunger-Free Kids Act of 2010 (HHFKA):
  - A. Requires schools to implement HACCP systems
  - B. Requires schools to have a certified chef on staff
  - C. Requires a minimum amount of annual training hours for school nutrition professionals
3. What role do parents and guardians play in ensuring food safety at school?
  - A. They have no role in food safety
  - B. They monitor food safety from home
  - C. They inform the school about dietary restrictions and allergies
4. To ensure the future of food safety in schools, it is best to:
  - A. Implement advanced kitchen equipment and adopt digital record-keeping systems
  - B. Reduce the number of meals served
  - C. Ignore random technology and continue with traditional practices
5. Which federal agency provides guidelines to minimize the risk of foodborne pathogens?
  - A. CDC
  - B. FDA
  - C. USDA
6. What are the common symptoms of a foodborne illness?
  - A. Sneezing and coughing
  - B. Headache and fever
  - C. Diarrhea and vomiting
7. What is the role of local health departments in enforcing food safety regulations in schools?
  - A. They create federal regulations
  - B. They have no role in food safety
  - C. They conduct regular inspections and address concerns on the local level

