







Big 6 Foodborne Pathogens

- Shiga toxin-producing Escherichia coli
- Hepatitis A
- Nontyphoidal Salmonella
- Norovirus
- Shigella
- Salmonella Typhi



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Pathogen	Symptoms	How Contracted	
E. Coli	Bloody diarrhea, abdominal pain, and vomiting	Eating contaminated foods like raw fruits and vegetables, unpasteurized dairy, undercooked meats, or fecal matter of an infected person	
Hepatitis A	Fever, malaise, diarrhea, and jaundice	Fecal-oral route either from person to person or through ingesting contaminated food or water	
Nontyphoidal Salmonella	Onset fever, diarrhea, nausea, and occasional vomiting	Eating contaminated food of animal origin, such as eggs, meat, poultry, or milk. Raw vegetables if contact with animal feces	
Norovirus	Stomach pain, nausea, vomiting. Occasionally fever, muscle pain, or malaise.	Spread from contact with an infected person, touching an infected surface, or ingesting contaminated food or water	
Shigella	Fever, stomach cramps, and diarrhea, which is often bloody	Spread from person-to-person through the fecal-oral route. Most common in young children	
Salmonella Typhi	Sudden fever, headache, nausea. May also experience splenic enlargement, constipation, or diarrhea	Spread from person-to-person through the fecal oral route, as well as drinking infected water	

Cooling Process

- Hot foods need to cool from 135°-70°
 Within 2 hours
- And from 70°-41°
 - Within 4 hours
- To Cover or Not to Cover
 - Do not cover completely until food has been cooled to the proper temperature (vent)
 - This was found on many health inspections across the state
 - By covering we are not allowing food to cool properly and can result in bacteria growing rapidly



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Contamination Events

- Vomiting and Diarrheal Events
 - Potential for the spread of harmful pathogens
 - Proper response in a timely manner
- Required to have written procedures
- Written Plan Considerations
 - Who, What, Where, Why, When, and How (Teenager Treatment)
- Why Written Procedures Necessary
 - Norovirus is leading cause of foodborne illness
 - Highly Contagious (10-18 viral particles to infect)
 - Transmission occurs: foodborne, peer2peer, airborne, and contact
 - Vomiting and Diarrhea often explosive (contaminate surfaces and become airborn

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-	PUBLIC INSTRUCTION



Designated Hand Sinks • FDA Food Code • Must be at least 1 hand sink inside or at the entrance to the food prep area • Helps to prevent the spread of bacteria • Allows food employees easy access and no excuses (DO NOT BLOCK) • Must have hand soap available • Paper towels and garbage can must be close by OR approved hand drying device

Date Marking

REFRIGERATOR

Exposure to Foodborne Illness

- Types of exposure food employees must report to management:
 - Ingesting or handling food that was implicated in a foodborne outbreak
 - Consuming food that was prepared by someone with an illness that resulted from one of the Big 6 pathogens
 - Attending or working in a location that had a confirmed foodborne illness outbreak
 - Living with someone who works or was in a location that was known to had a foodborne illness outbreak
 - Living with someone who was diagnosed with an illness that resulted from one of the Big 6 pathogens



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Exclusion vs. Restriction

Exclusion

- Not permitted to work
- Can not enter food establishment as a food employee
- PIC has authority
- Job duties
- None

NORTH DAVIDS DEPARTMENT OF PUBLIC INSTRUCTION

Restriction

- Food employee's activities are limited
- Can not work with exposed food, equipment, utensils, linens, etc.
- PIC has authority
- Job duties
 - Cashier
 - Seating
 - Bussing
 - Non-food Cleaning
 - Maintenance

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Food Storage

- Floor
 - How high must foods be stored off the floor?
- In Coolers
 - Do you know the proper way to store raw and RTE foods?
- Proper Coolers
 - Hidden concerns of pop coolers.
- Upcycling plastic containers
 - What's wrong with the margarine container?





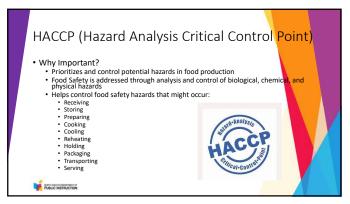


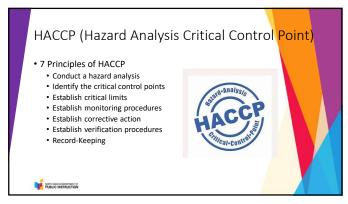


















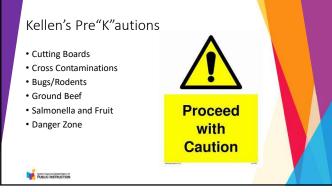


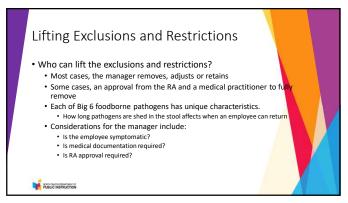




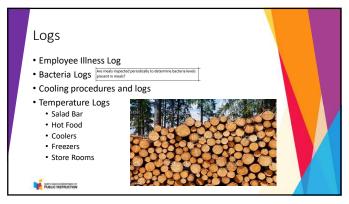






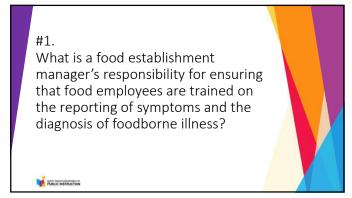


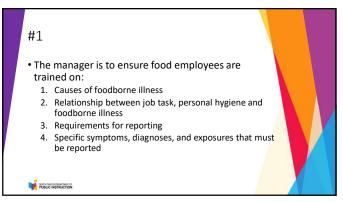




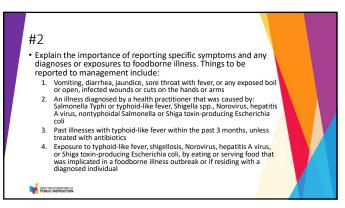


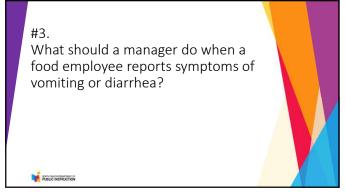




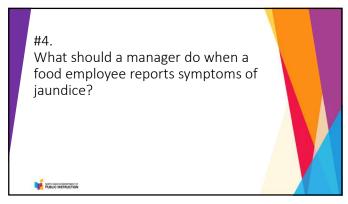


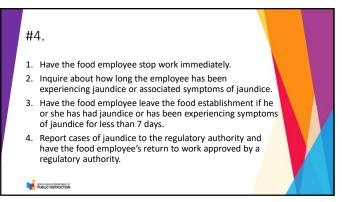


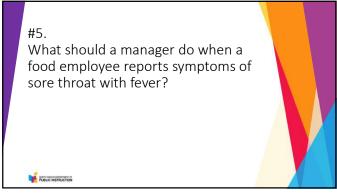


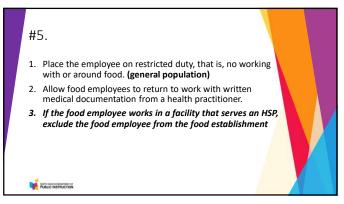


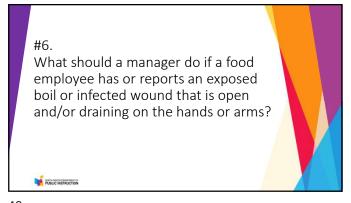


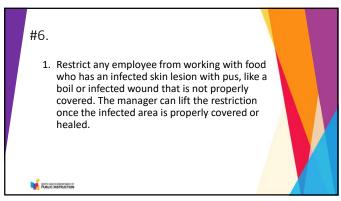


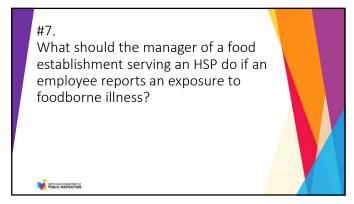














A Manager must restrict food employees exposed to:

- Norovirus, for at least 48 hours from the time of exposure;
- Shigella spp. or Shiga toxin-producing Escherichia coli, for at least 3 days from exposure;
- Typhoid fever (caused by Salmonella Typhi) for at least 14 days from exposure; or
- Hepatitis A virus, until after training has been given about symptoms, the prohibition of bare hand contact with RTE food to avoid contamination, proper handwashing, or until at least 30 days from the initial exposure.



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