Welcome!

- Please enter your name, organization and town in chat

- **Enter questions in the Q&A** and we will answer at the end of each presenter’s section

- Recording and slides will be sent out after the webinar
Food Safety
March 15, 2023
Raina Brouillet, CDM, CFPP
Food Safety and Compliance Manager
Agency Food Safety Training

Training Objectives:

• Understand how food can become unsafe
• Understand what we can do to prevent foodborne illness
• Understand the resources available
Introduction:

Thank you for taking the time to learn more about food safety.

Trainer: Raina Brouillet, CDM, CFPP
Food Safety and Compliance Manager at Connecticut Foodshare
You might be overdoing food safety just a bit.
Prevalence of Foodborne Illness in the US:

• The CDC estimates that annually:
  • 48,000,000 people get sick (1 in 6 people)
  • 128,000 people are hospitalized
  • 3,000 people die

• Symptoms of Foodborne illness may include:
  • Nausea, vomiting, diarrhea, cramps, headache, bloody stool, fever, fatigue, achy joints. Symptoms may occur between 1 hour and 5 days of eating contaminated food.
Prevalence of Foodborne Illness in the US:

What is unique about the people that we serve, and why do we need to be mindful of food safety?

• The clients we serve are highly susceptible to serious illness from a foodborne pathogen.
• Many individuals have compromised immune systems.
• Many individuals have lack of quality healthcare.
• Many do not have ideal conditions for storing, cooking or reheating the foods they get from us.
• Much of the food we distribute is near the end of its useful life.
How do people get sick from food?

✓ Biological Contaminants
✓ Physical Contamination
✓ Chemical Contamination
✓ Exposure to Allergens
✓ Food Tampering – Food Defense
Biological Hazards

• Germs: Bacteria and Viruses
  Parasites and Fungi

Norovirus
Contaminants in Food...

Bacteria:

*Common Bacterial Foodborne illnesses are:*

- E Coli
- Salmonella
- Listeria
- Shigella

*How Bacteria become present and multiply in food:*

- Some bacteria are naturally present in food
- Cross Contamination
- Pests
- Unsanitary environment
- Time and temperature abuse helps them grow exponentially

Pathogens may be present in dangerous amounts in a food item without being seen, smelled or tasted!
Contaminants in Food...

Viruses:

Viruses are carried by humans and animals. Unlike bacteria, they need a living host to grow. They can be transferred through food or water and still be infections in the food.

Major viruses that cause Foodborne illness are:

• Hepatitis A
• Norovirus
Contaminants in Food...
Physical Hazards:

• Physical hazards include:

✓ Staples from packing material
✓ Bandages
✓ Hair
✓ Jewelry, false fingernails, nail polish
✓ Fruit pits and stems
✓ Dirt, pebbles
✓ Broken Glass

*** Please closely inspect all items received
Contaminants in Food...

Chemical Hazards:

• Chemical contaminants include:
  • Polishes, cleaners, cleansers, pesticides, hand soaps and sanitizers, deodorizers, lotions and sprays, machine lubricants.
  • Some kitchenware and equipment also pose a risk.
    • Pewter, copper, zinc, some pottery.
• How to reduce this risk:
  • Store chemicals away from food.
  • Make sure all chemicals remain in original containers or have approved labels.
  • Sanitizers should be tested for proper food-safe concentration.
Allergen Control – Someone’s life depends on it!, continued....

There are over 170 different foods that cause allergic reactions. Of these, only **NINE** are reported as causing over 90% of all food allergy reactions.

- Milk
- Shellfish
- Soy
- Eggs
- Peanuts
- Wheat
- Fish
- Sesame (New!)
- Tree Nuts
Allergen Control – Someone’s life depends on it!

A food allergen is any product or ingredient containing proteins that can cause an immune system reaction in a person who has food allergies.

Approximately 20 million people have food allergies in the United States.

When a person eats a food item they are allergic to, their body treats the allergen as an invader and reacts against it. The amount of food allergen that people can tolerate varies. Because of this, reactions are not the same for all people.
Allergen Control – Someone’s life depends on it, continued....

- People with mild food allergies may be able to eat small amounts of the product and experience only slight discomfort.

  - Some examples of mild allergic reactions are: *Itchy skin and rashes, hives, abdominal pain, dizziness, diarrhea, vomiting, wheezing, swelling.*

- On the other hand, people with severe food allergies can be affected by simply touching or smelling the food. A severe, whole-body reaction is called anaphylaxis or anaphylactic shock. These reactions can be life-threatening.

  - Severe reaction may also include: *difficulty breathing, seizures, drop in blood pressure, unconsciousness, decrease in blood flow throughout the body, death.*
Allergen Control – Someone’s life depends on it!, continued....

Ideally, we should take these steps....

• Foods containing allergens are labeled and segregated.
• Keep foods containing allergens below other foods.
• If a food is suspect to have been contaminated, it should be discarded.
• Wash hands and surfaces to avoid cross contact.
Food Defense:

Food Defense refers to protecting food from *intentional contamination* or fraud for malicious or economic reasons.

The best way to protect food is to make sure we keep our facilities secure and that we are alert to things that don’t look right.
THE FOOD BANK MANTRA

Don't Distribute Disease
Preventing Foodborne Illness

• Hazard Analysis of Critical Control Points – HACCP

• A HACCP plan analyzes the flow of food from production to consumer.
• Where could things possibly go wrong and what needs to be done to correct it when it happens.
• For us, the biggest challenge we have in protecting food is to controlling temperature.
• For us it is the challenge of keeping cold food cold.
• This is the CCP we focus on at Connecticut Foodshare.
Preventing Foodborne Illness

TCS Foods – Temperature Controlled for Safety

Temperature Danger Zone:

41°F - 135°F

Time:

FDA recommends that food not be held in the temperature danger zone for greater than 2 hours and 4 hours cumulatively, from the beginning of production.

Growth Rate:

If you have just four cells of bacteria in your food and leave it for 30 minutes or longer in the "danger zone," then by the two-hour mark you will already have 256 germs. If you leave it sitting out for just one more hour, the number of bacteria will reach 4,096. This number of bacteria would cause illness.
Preventing Foodborne Illness
TCS Foods – Temperature Controlled for Safety

- Milk & Dairy
- Eggs
- Meat, Beef, Pork and Lamb
- Poultry
- Fish
- Shellfish
- Baked Potatoes
- Heat treated plant-based foods
- Tofu or other soy protein
- Sprouts
- Sliced melons, cut tomatoes and cut lettuces
- Untreated Garlic in oil
Preventing Foodborne Illness
TCS Foods – Temperature Controlled for Safety
Preventing Foodborne Illness

Let me introduce you to FAT TOM!
Preventing Foodborne Illness

FAT TOM
FACTORS THAT CONTRIBUTE TO MICROBIAL PATHOGEN GROWTH

FAT TOM is a mnemonic device used in the food service industry to describe the six aspects that contribute to the growth of foodborne pathogens. With the proper control of these aspects, the chance of food illness is reduced.

- **T** Time
- **T** Temp
- **A** Acidity
- **O** Oxygen
- **F** Food
- **M** Moisture

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Connecticut Foodshare
Preventing Foodborne Illness
TCS Foods – Temperature Controlled for Safety

Best Practices:

✓ Carefully Inspect food upon receipt.
✓ Take the temp of foods being received to insure they are cold.
✓ Refrigerate Immediately.
✓ Keep TCS foods under temperature control for display.
✓ Keep track of items that have been in and out of the refrigerator more than 1 time.
✓ When in doubt, please discard TCS foods that are suspect for extreme temperature abuse.
✓ Monitor refrigerator temperatures daily.
✓ Keep frozen foods frozen solid.
Preventing Foodborne Illness

Receiving, Storage and Sanitary Facilities

“Do not consume if seal is broken.”
Preventing Foodborne Illness

Receiving, Storage and Sanitary Facilities
Preventing Foodborne Illness
Receiving, Storage and Sanitary Facilities
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Receiving, Storage and Sanitary Facilities

Refrigerator Storage Chart
Always store ready-to-eat foods on the top shelf! Arrange other shelves by cooking temperature (highest cooking temperature on the bottom).

Ready-to-Eat Foods (Top Shelf)

Lowest Cooking Temperature

135°F (57°C)
Any food that will be hot held that is not in other categories.

145°F (63°C)
Whole seafood, beef, pork, veal, lamb (ribs and chops) meats; eggs that will be served immediately.

155°F (68°C)
Ground, injected, marinated, or tenderized meats; eggs that will be hot held.

160°F (71°C)
All poultry (chicken, turkey, duck, fowl); stuffing made with foods that require temperature control; dishes with previously cooked foods (casseroles).

Highest Cooking Temperature
Preventing Foodborne Illness
Receiving, Storage and Sanitary Facilities

Repacking of bulk foods should not be done unless you have a dedicated “Clean Room” for that purpose. Workers must go through specific training.
Preventing Foodborne Illness
Receiving, Storage and Sanitary Facilities

- Keep good air flow around products, especially in refrigeration and freezer.
- Keeps foods in designated food storage areas only.
- Keep items off floor, 6” with ability to clean under shelf.
- Buy shatter resistant light bulbs.
- Store chemicals away from food and keep them in secure areas.
- Sanitize food contact surfaces after any potential contamination.
- Keep floors, walls, shelving and sinks clean.
- Don’t block hand washing sink. Have a dedicated waste receptacle nearby.
- Cover trash receptacles.
Preventing Foodborne Illness
Receiving, Storage and *Sanitary Facilities*
Preventing Foodborne Illness
Receiving, Storage and Sanitary Facilities

Controlling Pests:

Pests carry pathogens that can harm food. Pests can enter our building and food supply in many ways. Inspect deliveries. Observe product as orders are being stored. Inspect floors and shelving for evidence of pests. Control access.

The best defense against pests is a good offense: Keep thir
Preventing Foodborne Illness
Hygiene and handwashing

Poor Personal Hygiene

Dirty Hands
Dirty Finger Nails
Dirty Uniforms
Smoking in Food Areas
Being Sick at Work
Open Cuts
Preventing Foodborne Illness
Hygiene and handwashing

• **Good Personal Hygiene:**

> This is the number one preventative measure against VIRAL foodborne illness. Viruses live on or in humans and animals and can be transferred to food. It is also an important measure to stop cross contamination of bacterial pathogens and cross contact of allergens.

- Wash hands frequently, especially after using the restroom, eating, drinking, smoking, handling trash touching hair and face handling refuse, touching raw meat fish products.

- It is good practice to wear a mask if you are not feeling well. Stay home if you are sick especially with fever and diarrhea.
Preventing Foodborne Illness
Hygiene and handwashing

Wash your hands after using a cell phone!

- Toilet seat: 1,201 bacteria per square inch
- Kitchen counter: 1,736 bacteria per square inch
- Pet food dish: 2,110 bacteria per square inch
- Checkout screen: 4,500 bacteria per square inch
- Doorknob: 8,643 bacteria per square inch
- **Cell Phone 25,127 per square inch**
Conclusion... Let’s tie it all together!
Thank you for all you do to serve our communities!

We appreciate your focus on food safety!

Raina Brouillet CDM CFPP
Food Safety and Compliance Manager
rbrouillet@ctfoodshare.org
860-202-6417 cell
Thank you for joining us!

Find recordings of this and other past webinars, along with registration links for upcoming webinars, at www.ctfoodshare.org/webinars

Resources from the chat:

- Food Date Code information on our website: https://ctfoodshare.org/understanding-food-date-codes/
- Food safety after a power outage: https://www.cdc.gov/foodsafety/food-safety-during-a-power-outage.html#:~:text=When%20in%20doubt%2C%20throw%20it,odor%2C%20color%2C%20or%20texture