Food Safety 100
Food Safety 100 Agenda

- Basics
- Personal Hygiene
  - Review
- Preventing Bacteria
- Preventing Contamination
- Allergies
  - Review
- Food Safety 100 Test

“Sanitation and Safety are Paramount”
Why is food safety important?

- It protects you, your guests, and your co-workers
- It is required by law
- It is good for business
- Students and other guests are expecting to eat food that has been safely prepared – we need to make sure this happens
In the US each year, there are...

- 48 million cases of foodborne illness (or 1 in 6)
- 128,000 hospitalizations related to foodborne disease
- 3,000 deaths related to foodborne disease

Source: CDC 2011

“Sanitation and Safety are Paramount”
Examples

- **Norovirus: Local B’burg restaurant – February 2011**
  - Over 100 people sick
  - Employee came to work and got sick

- **Norovirus: Small college in VA – January 2015**
  - 30% of students infected
  - School closed for a week

- **Salmonella: Rhode Island – March 2011**
  - 83 confirmed cases (30 went to hospital and 3 died)
  - Pastry cream held at unsafe temps
  - Finished product kept in used egg crates

“Sanitation and Safety are Paramount”
Personal Hygiene

☑ Basics
☐ Personal Hygiene
  ☐ Review
☐ Preventing Bacteria
☐ Preventing Contamination
☐ Allergies
  ☐ Review

☐ Food Safety 100 Test

“Sanitation and Safety are Paramount”
Handwashing

- Handwashing is the most important step in food safety
- Dining Services allows cashiers to use hand sanitizer instead of washing their hands because they are not handling food
When To Wash Your Hands

• Before you start work
• After the following activities:
  • Using the restroom*
  • Handling:
    • Raw food
    • Boxes
    • Chemicals
  • Sneezing or coughing
  • Smoking, eating, or drinking
  • Changing gloves
• Touching anything that may be contaminated such as:
  • Hair
  • Face
  • Clothing
  • Trash
  • Anything not sanitized

“Sanitation and Safety are Paramount”
Proper Handwashing Technique

1. Make sure you are at a handwashing sink, not a sink used for food production

2. Check to make sure paper towels are available

3. Wet your hands with running water (preferably warm water)

4. Apply soap
Proper Handwashing Technique cont.

5. Vigorously scrub hands and forearms for at least 20 seconds
   - Not while under running water
   - Make sure to get spots frequently missed

“Sanitation and Safety are Paramount”
Proper Handwashing Technique cont.

6. Rinse thoroughly under running water

7. Dry your hands with a single use paper towel

8. Use paper towel to turn off faucet and open any doors

Friction and soap are the two most effective steps that help get germs off your hands.
Gloves

- Although gloves provide another barrier between hands and food, gloves are not a substitute for handwashing.
- You can still spread germs even while wearing gloves.
- Hands must be washed before putting on your gloves.
- Don’t worry about how many gloves you go through.
When to Change Your Gloves

- As soon as they become torn
- As soon as they become contaminated
- Before changing to another task
- Every 4 hours after continuous use
- After the following:
  - Handling raw meat or stock
  - Touching:
    - Hair
    - Clothing
    - Apron
    - Anything contaminated
  - Sneezing or coughing
  - Cleaning
Clear Gloves Should Not Be Worn When...

- Taking out the trash
- Walking in hallway
- Going on break
- Smoking
- Handling stock
- Sweeping the floor

- Gloves should not be worn outside your shop area. They are only for handling food items.

- You can wear colored gloves.

- Why?
Personal Hygiene Practices

- Never wipe your hands on your apron
- Take your apron off before going into the restroom
- Chewing gum, cough drops, and mints are prohibited
- Use a Dining Services band-aid since they are brightly colored (and a finger cot if cut is on finger).
- Fingernails are to be short, clean, and free of nail polish and false nails

“Sanitation and Safety are Paramount”

Personal Hygiene Practices cont.

- Hair must be clean, well groomed, and under restraint - long hair must be secured behind the shoulders
- Mustaches must be well groomed and not extend beyond the corners of the mouth
- Beards are not allowed, you must be clean shaven
- Sideburns can’t go beyond the bottom of the earlobe or be wider than one inch
Jewelry

**Allowed**
- One stud or hoop earring per ear that does not extend a ¼” past the bottom of the earlobe
- **Solid** band/ring
- Necklaces – as long as they are concealed

**Not Allowed**
- Ring with *grooves* or stones
- **Facial** piercing
- Tongue ring/stud
- Gauge/plug earring
- Bracelets
- Watches

“Sanitation and Safety are Paramount”
Notify your manager and do not come to work if you or someone you live with has...

Any of the following symptoms:

• Vomiting*
• Diarrhea*
• Sore throat with fever (doctor’s note required)
• Jaundice (yellowing of skin and whites of the eyes)

Any of the following:

• Salmonella (both Typhi and nontyphoidal)
• Shigella
• E. Coli
• Hepatitis A
• Norovirus

*Symptoms of Norovirus – can not work for 72 hours until after the symptoms stop or bring in doctor’s note stating it isn’t Norovirus or any other foodborne illness

“Sanitation and Safety are Paramount”
Illness at work

- If you become ill at work, notify a manager immediately.
- If you feel the need to vomit while at work...
  - Remove yourself from any food-prep area.
    - Find a bathroom if possible.
  - Notify a manager and leave work.
  - Vomit must be cleaned up by a trained staff member with a bio-hazard kit.
    - 25ft radius must be cordoned off, any food production or service in the area must cease until cleaned and sanitized.
Review

- Basics
- Personal Hygiene
  - Review
- Preventing Bacteria
- Preventing Contamination
- Allergies
  - Review
- Food Safety 100 Test

“Sanitation and Safety are Paramount”
SECTION 1 REVIEW
Why do you need to wear gloves?

A. To prevent your hands from getting dirty
B. To provide another barrier between hands and food
C. To make the guest feel better
Why do you need to wear gloves?

A. To prevent your hands from getting dirty
B. To provide another barrier between hands and food
C. To make the guest feel better
What are the two most effective steps in handwashing?

A. Friction and soap
B. Friction and drying
C. Drying and rinsing
D. Soap and rinsing
What are the two most effective steps in handwashing?

A. Friction and soap
B. Friction and drying
C. Drying and rinsing
D. Soap and rinsing
Are all the germs on your hands killed once you wash your hands properly?

A. Yes, our soap will kill 99.9% of bacteria

B. No, our soap is not anti-bacterial, but will help wash germs off your hand
Are all the germs on your hands killed once you wash your hands properly?

A. Yes, our soap will kill 99.9% of bacteria

B. No, our soap is not anti-bacterial, but will help wash germs off your hand
Which ring is allowed?

A.  
B.  
C.  
D.  

"Sanitation and Safety are Paramount"
Which ring is allowed?

A.  

B. 

C.  

D.  

“Sanitation and Safety are Paramount”
You cannot come to work if someone you live with has which of the following?

A. Vomiting
B. Diarrhea
C. Sore throat
D. All of the above
E. A and B
You cannot come to work if someone you live with has which of the following?

A. Vomiting  
B. Diarrhea  
C. Sore throat  
D. All of the above  
E. A and B
Preventing Bacteria and its Growth

☑ Basics
☑ Personal Hygiene
  ☑ Review
☐ Preventing Bacteria
☐ Preventing Contamination
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  ☐ Review

☐ Food Safety 100 Test

“Sanitation and Safety are Paramount”
Microorganisms

• Small, living organisms that can only be seen through a microscope

• Four main types
  • Bacteria
  • Viruses
  • Parasites
  • Fungi
### Bacteria - Greatest Threat to Food Safety

#### Carried by:
- Water
- Wind
- Insects
- Plants
- Animals
- People

#### Will survive on:
- Skin
- Clothes
- Human hair
- Scabs
- Nose
- Mouth
- Throat
- Intestines

Cannot be detected by sight or smell.
Potentially Hazardous Foods

• Have a history of being involved in foodborne illness outbreaks

• Support the rapid growth of microorganisms

• Usually have a high moisture and protein content and a slightly acidic or neutral pH level

• Meat, dairy, leafy and sliced vegetables, sliced fruits, baked potatoes are all examples of potentially hazardous foods.

“Sanitation and Safety are Paramount”
Controlling Bacterial Growth

• Need to control **temperature** of food

• Temperature Danger Zone – **between 40° F and 140° F** (temperature range where foodborne microorganisms grow and reproduce) – *means 40° F and 140° F are ok, but not in between the two*

• Extreme danger zone is between **70° F and 125° F**
Controlling Bacterial Growth

• Need to control time food is in danger zone

• Time consideration – food cannot be exposed to the temperature danger zone for more than four hours during the entire food handling process

• Four hours is the max! Prep food as quickly as you can.
HACCP

• Stands for **Hazard Analysis Critical Control Points**

• A HACCP program is established to identify points that will help prevent, eliminate, or reduce biological, chemical, and physical hazards to safe levels during the **flow** of food through the dining center

“Sanitation and Safety are Paramount”
HACCP Temperature Logs

- Temperatures and times taken should be recorded on log sheets immediately (different for each dining center and shop).

- Temperatures of food in holding areas are checked every hour.
  - To leave time for a corrective action.

- Do NOT falsify temperature log sheet.

- You can be held liable for these log sheets and even called in to court if necessary.
## HACCP Temperature Logs

**Serving Temperature Log**

**Breakfast - Salsa's Line**

**D2 Dining Center**

### Nov-08

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>7:00 AM</th>
<th>8:00 AM</th>
<th>9:00 AM</th>
<th>7:00 AM</th>
<th>8:00 AM</th>
<th>9:00 AM</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrambled Eggs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakfast Meat:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circle One:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>French Toast OR Pancakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sausage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egg Whites</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sausage Gravy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooked Apples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potato:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cooler</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Freezer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utensil Container</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utensil Container Clean:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All utensils facing same direction:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Thermometers Calibrated at:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand Sink Fully Stocked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanitation Bucket (200 ppm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Initials

Veriﬁer's Initials

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“Sanitation and Safety are Paramount”
Controlling Bacterial Growth

• Don’t allow frozen food to thaw and then refreeze

• How do you tell if has been refrozen?
  • Fluid or frozen liquid inside the carton
  • Large ice crystals on the product
  • Misshapen or distorted products

• Limit the risk of time-temperature abuse
  • Cut down on handling time, includes batch cooking
  • Keep food at proper temperatures and out of the danger zone

“Sanitation and Safety are Paramount”
Thawing Food Safely

✓ In a **cooler** at 40° F or lower

✓ Submerged under running water at a temperature of 70° F or lower (*be mindful of time*)

✓ In a microwave – only if cooking immediately after thawing

✓ As part of the **cooking** process

✗ **NEVER** thaw something at room temperature

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Cooling Food Safely

• Divide food into small quantity or size

• Use ice-water baths or blast chillers to help

• Stir regularly

• Cool cooked food from 140° F to 70° F within two hours and from 70° F to 40° F or lower in an additional four hours, for a total cooling time of six hours
  • Time starts at 140°

• Do not put very hot foods into cooler to chill
Reheating Food Safely

• Reheat to at least a minimum internal temperature of 165°F for 15 seconds within two hours

• Reheat only one time
  • Sometimes not at all if it will effect quality
Holding Food Safely

• Stir food regularly

• Hot holding – maintain an internal temperature of 140°F or higher

• Cold holding - maintain an internal temperature of 40°F or lower; do not store food directly on ice; no direct heat from lighting

• What if something is in the DANGER ZONE?
  • The first thing you should do is remove the item and tell your supervisor.
Cooking Food Safely

• Minimum Internal Cooking Temperature
  • Required temperature a raw product must reach to reduce the risk of contamination from microorganisms
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Beef - steak or roast
Pork - chop or roast
Seafood
Eggs

145° F
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155° F

Ground beef/pork Sausage

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Poultry – chicken, turkey, etc.

165° F

(Even though eggs come from chickens, they don’t contain a large amount of salmonella – so eggs are only cooked to 145° F.)
Taking Temperatures

• Thermometer should stay in the food for 15 seconds
  • 4 minutes if it is a roast
• Make sure you use the thickest part of the food
Preventing Contamination

☑ Basics
☑ Personal Hygiene
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☐ Preventing Contamination
☐ Allergies
☐ Review

☐ Food Safety 100 Test

“Sanitation and Safety are Paramount”
Avoiding Contamination

• Defined as presence of harmful substances in food

• Some contamination occurs naturally, while humans or the environment introduce others

• Cross-contamination occurs when microorganisms are transferred from one surface or food to another
  • Example: wiping hands on apron
Limit Risk of Cross-Contamination

- **Wash** hands often

- Do not touch *ready-to-eat* foods with bare hands

- Clean and sanitize all work surfaces, equipment, and utensils after each task or if they become contaminated

- Use specific equipment for each type of food - example: cutting boards

“Sanitation and Safety are Paramount”
Avoiding Contamination

• Look for **signs** of damage, spoilage, and **contamination**
  • Dented, rusty, or swollen cans
  • Rotten or moldy produce
  • Wetness
  • Pest infestation

• Check with a manager whenever in **doubt**
Storing Food Properly

- Practice **FIFO** (First In, First Out) – practice of rotating stock to ensure oldest inventory is used first

- **Label** food – include type of food, prep date, and discard date

- Dining Services discards products
  - 3 days after the date prepared

- Discard food that passed manufacturing expiration date (notify manager – possible refund?)
Storing Food Properly cont.

- Store food at least 6” off the floor and away from the walls.

- Store all raw products separately or below ready-to-eat foods.
  - Raw foods should be stored in the order of their minimum cooking temperature. This way there is no way an item like Chicken can contaminate fish with a lower cooking temp.

- Do not overload shelves.

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“Sanitation and Safety are Paramount”
Where does the food go?

- Raw Chicken
- Potato Salad
- Raw Ground Beef
- Raw Fish
**Answer**

Raw foods should be sorted by their minimum internal cooking temperature. The higher the temperature items should be stored lower in the cooler.

<table>
<thead>
<tr>
<th>Raw Foods</th>
<th>Internal Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato Salad</td>
<td></td>
</tr>
<tr>
<td>Raw Fish</td>
<td>145° F</td>
</tr>
<tr>
<td>Raw Ground Beef</td>
<td>155° F</td>
</tr>
<tr>
<td>Raw Chicken</td>
<td>165° F</td>
</tr>
</tbody>
</table>
Serving Food

• Serving utensils need to be stored properly, have long handles, and be **cleaned** and sanitized

• Dishes and utensils need to be handled properly

• Use ice scoop or tong to get ice

• Do not take plates from **guests** across serving line

• Guests must use a clean plate when returning to self-service area

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Cleaning & Sanitizing

- **Cleaning** – process of removing food and other types of soil from a surface such as a countertop or plate

- **Sanitizing** – process of reducing the number of microorganisms on a clean surface to safe levels

- Wash, rinse, sanitize, and then air dry.

- Let sanitizer dry on table. Do not use towel to dry.
When to Clean and Sanitize

• After each use

• Anytime you begin working with another type of food

• Anytime you are interrupted during a task

• Anytime the tools or items you are working with have become contaminated

• At least every four hours for items in constant use
Avoiding Chemical Contamination

- Store chemicals in original or other sturdy, clearly labeled containers
- Store away from food and food preparation areas
- Never allow chemicals to get into food
- Clean up spills promptly
- Wash your hands after handling any chemicals before returning to work
Pests

• Signs
  • Odor
  • Feces/droppings
  • Actual sightings
  • A cockroach seen during the day is usually a sign of a major infestation

• What to do if you see a pest?
  • Tell manager immediately and quietly
  • Describe pest, where you saw it, and any other details you can remember
  • Stay calm
Pests

• Dispose of garbage quickly and correctly

• Properly store all food and supplies
  • At least 6” above the floor
  • Practice FIFO

• Clean and sanitize your area thoroughly

• Clean up spills and crumbs immediately
Avoiding Physical Contamination

• Hair, band-aids, metal shavings, fish bones, etc.

• Follow personal hygiene and grooming policies

• Check your food before serving it

• If food has been contaminated, do not serve it
Sanitation and Safety are Paramount

Allergies

- Basics
- Personal Hygiene
- Review
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- Preventing Contamination
- Food Safety 100 Test
Food Allergies and Food Intolerances

• What is a food allergy?
  • Immune system reacts to certain foods
    • Asthma
    • Swelling
      • Lips
      • Mouth
      • Throat
    • Death

• What is a food intolerance?
  • Does not affect immune system
  • Not life-threatening, but can cause permanent damage
Celiac Disease (Gluten Intolerance)

- Individuals with Celiac Disease cannot eat any of the following: wheat, rye, barley, triticale, and many other items
- Contamination - gluten free pasta example
- If you are not careful and someone with Celiac Disease eats gluten, you can cause permanent damage to their body.
Allergies

• 8 most common food allergens:
  • Milk and dairy products
  • Eggs and egg products
  • Fish
  • Shellfish
  • Wheat
  • Soy and soy products
  • Peanuts
  • Tree nuts
Only careful with these 8?

• Of course not – can be just as serious
• Examples from VT
  • Rice
  • Corn
  • Garlic
  • Melon
  • Strawberries
  • Potatoes
How to help a guest with an allergy or intolerance?

- Avoid Cross-Contact
  - Gloves
  - Equipment
- Follow the recipe
- Ask the chef
- Show the ingredient label
- Allergen worksheet
  - Take them online
  - Allergen filter
- Allergen app

“Sanitation and Safety are Paramount”
Allergies

- Get a manager if you need help
- Always take extra precaution
- Remember customer service

“Sanitation and Safety are Paramount”
Review

☑ Basics
☑ Personal Hygiene
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☑ Review

☑ Food Safety 100 Test

“Sanitation and Safety are Paramount”
SECTION 2 REVIEW
What should you do if you need to help a guest with an allergy and there is no manager in sight?

1. Excuse yourself and find a manager
2. Tell the customer they will have to come back
3. Try your best and hope it is okay
4. Wait until you see a manager walk by

Remember to practice great customer service

“Sanitation and Safety are Paramount”
What should you do if you need to help a guest with an allergy and there is no manager in sight?

1. Excuse yourself and find a manager
2. Tell the customer they will have to come back
3. Try your best and hope it is okay
4. Wait until you see a manager walk by

Remember to practice great customer service

“Sanitation and Safety are Paramount”
Food should not remain in the temperature danger zone for more than ____ hours (except for cooling process).

A. 2
B. 4
C. 6
D. 8
Food should not remain in the temperature danger zone for more than ____ hours (except for cooling process).

A. 2  
B. 4  
C. 6  
D. 8
Can you just rinse your equipment before helping a guest with an allergy?

1. Yes
2. No
Can you just rinse your equipment before helping a guest with an allergy?

1. Yes
2. No

Rinsing will not make sure that your equipment does not have an allergen on it. You must clean and sanitize all equipment before helping a customer with an allergy.
Why can you only reheat something one time?

A. The quality is not as good.
B. Actually, you can reheat as many times as you want.
C. The food will be in the danger zone for too long.
Why can you only reheat something one time?

A. The quality is not as good.
B. Actually, you can reheat as many times as you want.
C. The food will be in the danger zone for too long.
Why do you have to sanitize thermometers after temping each food?

1. You only have to do this for certain foods
2. To make sure the thermometer is shiny
3. To avoid cross-contact issues
4. To make sure we get an accurate temperature reading
Why do you have to sanitize thermometers after temping each food?

1. You only have to do this for certain foods
2. To make sure the thermometer is shiny
3. To avoid cross-contact issues
4. To make sure we get an accurate temperature reading
Which food has the highest minimum internal cooking temperature?

A. Fish  
B. Beef  
C. Chicken  
D. Sausage
Which food has the highest minimum internal cooking temperature?

A. Fish
B. Beef
C. Chicken
D. Sausage
Exceptions to the rule

• Number of days to keep food, temperatures, etc.
• Must get permission from Health Department
• Your manager will let you know about these exceptions
5 Main Ways Foodhandlers Make Food Unsafe

- Purchasing food from unsafe sources
- Failing to **cook** food to required temperatures
- Holding foods in the **danger** zone
- Using contaminated equipment and utensils
- Practicing **poor personal hygiene**

Source: CDC 2008
What’s wrong with this picture?

“Sanitation and Safety are Paramount”
“Sanitation and Safety are Paramount”

What’s wrong with this picture?

- He’s smoking!
- Going to put hot food into cooler and it isn’t covered
- No gloves on and using a dirty rag
- Cooler door open, packed full, and not all items labeled
- Spiderwebs
- Food isn’t 6" off the floor
- Rat droppings or food on floor
- Cleaning supplies next to food