

Slide 1

Food and Health Safety Part II

Lorene Sauro, RHN

The Digester's
Dilemma

Slide 2

Chemical Hazards

- Examples of chemical hazards:
 - “Traditional” chemicals (i.e.: antibiotics, sanitizers, cleaning agents, pesticides, fertilizers, natural toxins)
 - Food additives over allowable limits
 - Heavy metals (i.e.: lead, mercury)



Slide 3

Physical Hazards

- May cause illness or injury (including trauma)
- Account for about 20% of complaints
- Examples of physical hazards:
 - Extraneous matter or foreign objects (physical items not normally found in food)
 - Unwanted portions of food (bones, pits, shells)



Slide 4

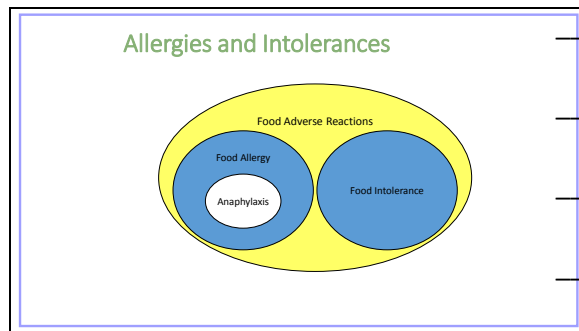
Physical Hazards Continued

- Glass
- Stones
- Pits, bone, shells
- Metal
- Hair
- Toothpicks

- Wood
- Bandages
- Jewelry
- Chips from plates and cups
- Plastic Bread Tags



Slide 5



Slide 6

Anaphylaxis

- Immune system response
- Life-threatening
- Can involve many organs and parts of the body, including:
 - Respiratory system
 - Cardiovascular system
 - Central nervous system
- 1/1000th of a peanut can cause death in an individual with a sensitivity to peanuts



Slide 7

Allergens

- Allergic reactions:
 - Affect 1-2% of adults and 4-6% of children
 - May occur within minutes or take 1-2 hours
 - Can range from mild to severe and may be life-threatening
 - Can become more severe with repeated exposure
- Nearly 50% of recalls are allergen-related



Slide 8

Sources of Food Allergens

- Food ingredients
- Mixing leftovers from different recipes
- Improper clean-up
- Cross-contamination by dust or pieces of the allergen (equipment or utensils)
- Incorrect information given to consumer



Slide 9

Health Canada / CFIA Allergen List

- Peanuts
- Tree nuts
- Sesame seeds
- Milk
- Eggs
- Fish
- Crustaceans and shellfish
- Soy
- Wheat
- Sulphites



Slide 10

CFIA's Allergy Aware Program

- Provide ingredient information:
 - Food Allergy Chart for at least three main menu items, or
 - Complete ingredient information on at least three main menu items, or
 - Complete ingredient information on at least three special meals



The image shows three small charts side-by-side, each with a list of food items and their corresponding allergen information. The first chart is titled 'Allergen Allergy', the second 'Allergen Allergy', and the third 'Allergen Allergy'. Each chart lists 15 items and their allergen status.

Slide 11

CRFA's Allergy Aware Program

- Menu or printed list
- Allergy Chart (displayed, not distributed)
- Recipe binder
 - Ingredient information from suppliers
 - Controlled by senior kitchen manager
- Designated employee
- Banquet concerns
 - Inquire about allergies
 - Add a clause to the contract



The image shows six icons representing different food items: a bowl of soup, a glass of milk, a piece of bread, a piece of meat, a piece of fruit, and a piece of vegetable. Each icon has a red prohibition sign (a circle with a diagonal line) over it, indicating that these items are not to be served to someone with an allergy.

Slide 12

CFIA's Allergy Aware Program

- Review recipes and identify problem foods
- Establish a policy emphasizing accuracy of information
- Train employees
- Inform customers
- If in doubt, **find out, or don't serve**
- Establish emergency procedures



The image shows a blue and white ribbon logo with the text 'Food Allergy Awareness' written on it.

Slide 13

What is “Allergen Clean?”

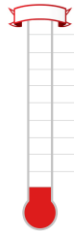
- All food contact surfaces are visibly clean – **NO** visible build-up or residue remains or is allowed to re-contaminate
- Areas around or above the product zones must be free of allergen-containing product or dust (i.e.: ledges, overhead pipes, etc.)



Slide 14

Frozen Storage

- Food must be stored at -18°C (0°F) or lower
- Check unit operation daily
- Measure air temperature daily
- Use FIFO
- Check for ‘freezer burn’
- Use stock within 3 months
- Keep doors closed
- Defrost regularly



Slide 15

Freezing Foods

- -18°C (0°F)
- Pathogens are dormant, not dead
- Do not refreeze raw potentially hazardous food
- Freeze fish to kill parasites
- Freeze pork to prevent trichinosis



Slide 16

Dry Storage

- 10°C to 21°C (50 °F to 70°F)
- Humidity 50 to 55%
- Foods 15 cm (6 inches) off the floor
- Away from direct sunlight or heat
- Store in original packages until open
- Transfer to labelled airtight containers
- Label with delivery date – use FIFO
- Discard if past ‘best before’ date

First In, First Out



Slide 17

Chemical Storage

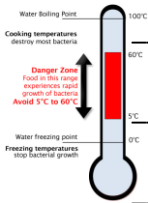
- Chemical storage areas should be:
 - Located in dry, well-lit, monitored areas
 - Separate from food and food contact surfaces
- Chemicals should be:
 - Kept in original packaging with instructions
 - Kept well-covered after initial use to prevent contamination



Slide 18

Food Preparation

- Dangers:
 - Temperature danger zone
 - Contamination from food handlers
 - Contamination from equipment and environment
 - Contamination from other foods (allergens, potentially hazardous raw foods)
- How do you control or prevent these dangers?



Slide 19

Thawing

- Under refrigeration
- Under cold, running water
- As part of cooking process
- Using a microwave



Slide 20

Cooking

- Must reach a minimum temperature for a specified period of time
 - Dependent on type of food, fat content and moisture content
- All parts of the food must reach the required temperature

USDA Recommended Safe Minimum Internal Temperatures

					
Beef, Veal, Lamb, Pork & Ham	Fish	Pork	Beef, Veal, Lamb Ground	Egg Dishes	Poultry: Chicken & Duck, Turkey, Pheasant & Cornish
145 °F	145 °F	160 °F	160 °F	160 °F	165 °F

145 F = 62 C
160 F = 71 C
165 F = 74 C

Slide 21

Ensuring Thorough Cooking

- Thorough cooking is aided by:
 - Cooking in small batches
 - Stirring frequently
 - Cooking in a continuous process
 - Handling dressing separately



Slide 22

Microwave Cooking

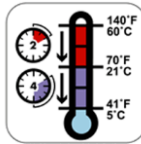


- Microwaved food can have "cold spots"
- Rapid heating may not allow enough time to kill microbacteria
- Ovens lose power over time

Slide 23

Cooling

- After cooking:
 - From 60°C (140°F) to 20°C (68°F) within two hours, then
 - To 4°C (40°F) within four hours
- From room temperature:
 - To 4°C (40°F) within four hours
- Always cover, label & date foods:
 - Do not use cloths



Slide 24

Reheating

- For hot holding:
 - Reheat to an internal temperature of 74°C (165°F); and
 - Reheat quickly



Slide 25

Thermometer Use

- Used to check temperatures of food throughout the process of cooking and using
- Clean & sanitize after each use
- Insert into the thickest/centre of food
- Calibrate



Slide 26

Self-Serve and Display

- Provide serving utensils for each item for a meal or on a food bar
- Label each item on the food bar
- Maintain proper holding temperatures
- There should be sneeze guards to protect food
- Never mix new food with old food
- Provide people with clean plates and silverware



Slide 27

Re-Serving Foods

- Never re-use ice
- Never re-serve bulk condiments (i.e. cream/sugar)
- Bread leftover from a customer must not be served to another customer
- Liners for bread baskets must be changed between guests
- Discard single service items such as plastic cutlery after its use
- Sealed condiments (i.e. creamers and sugar packets) can be re-served



Slide 28

Injury

- Cuts can be a source of *Staphylococcus aureus* which produces a heat-stable toxin
- How to handle an injury in the workplace:
 - Clean and sanitize contaminated area
 - Destroy any food contacted
 - Bandage wound and cover with a disposable, waterproof plastic glove



Slide 29

Good Employee Hygiene

- Proper Attire
- Hair Restraint
- Avoid behaviours that contaminate food
- Practice proper handwashing
- Use gloves properly



Slide 30

Proper Attire

- Clean outer clothing, aprons and cleaning cloths
- Uniform cleaned daily
- Uniforms, aprons and cloth changed when contaminated
- Uniform put on and worn only at work
- Clean, non-slip shoes worn only at work



Slide 31

Good Employee Hygiene

- Hair and face have millions of bacteria
- Hair and beard restraints prevent hair from contaminating food or food contact surfaces
- Help prevent touching hair and beards
- All hair should be covered with restraint



Slide 32

Behaviour

- Prohibited behaviour during food preparation, service and cleaning:

- | | |
|------------------|---------------------------------|
| • No eating | • No spitting |
| • No drinking | • No coughing or sneezing |
| • No smoking | • No nail polish or false nails |
| • No chewing gum | • Bath daily |



Slide 33

Good Employee Hygiene

- No Jewelry Policy
 - Jewelry harbours bacteria
 - Jewelry can be a physical hazard
 - Jewelry can be caught on equipment
 - Medic Alert bracelets and necklaces are accepted
 - Also, no nail polish



Slide 34

Handwashing



- Why?
- When?
- How?

Slide 35

Professional Handwashing Practice

- Use a small amount of fluorescent lotion
- Rub thoroughly on hands and wrists
- Look under a black light (UV lamp) to see any contamination
- Wash hands and check under UV light again



Slide 36

Handwashing Reality

- Never use anti-bacterial soap
- The action of the water alone forces the bacteria off the hand
- Use plain clean soap
- Wash thoroughly and dry with a clean cloth including under fingernails
- Do not touch anything other than the food
- Wash frequently during food prep.



Slide 37

Use of Gloves

- Wash hands before putting on gloves
- Disposable gloves should be changed or washed when hands would be washed:
 - Consider nitrile gloves to avoid latex allergies
 - Discard after four hours of use
 - Discard if torn or damaged
- Reusable gloves should be washed as if they were hands



Slide 38

Visitors

- Wear clean protective clothing provided by foodservice operator
- No contact with food or food contact surfaces



Slide 39

Vinegar

- The great non-toxic cleaner and preservative
- White vinegar - acetic acid PH 2.4
- Apple cider vinegar PH 2.4 - 3.4
- Lemon Juice PH 2.5



Slide 40

Wooden Cutting Boards

- Stainless Steel surfaces are generally recommended – home counter tops must be solid and not prone to cracks and crevices
- Plastic must be thoroughly cleaned (in dishwasher is best)
- Glass cutting boards are easiest to clean (but noisy)
- Wooden cutting boards – nature's miracle
- Bacteria inoculated into wood was absorbed by the wood and reduced by 98%
- More importantly, overtime bacteria did not grow on wood – it did on plastic
- Be careful of cross contamination



Slide 41

The Next Time You Buy A Product

- Think about how they are preserving it:
- Are they using chemical preservatives
- Are they using an acid??
- No Air?
- It is dry?
- It is held stable by a vacuum?
- Think about this for cosmetics as well



Slide 42

Health and Food Safety Certificate

- NFSTP – National Food Safety Training Program
- Do it online – need to find a proctor for exam – there is a way to do this online as well
- Online Program Cost - \$43.95 plus tax
- Certificate Exam – 27.75 plus tax



<http://learn.nfstp.ca/>