TOPIC: FOOD SAFETY

Introduction to Food Safety

- Each year ___ million Americans suffer from foodborne illness; 128,000 hospitalizations & 3,000 deaths.
  - Elderly, _____, & immunocompromised individuals are most at risk.
- **Foodborne illness:** sickness caused by the _____ of harmful substances in food or water.

- **Pathogens:** _____ causing microorganisms.
  - Viruses: e.g., norovirus.
  - _____: e.g., *Salmonella*.
  - Parasites: e.g., tapeworms.
- Often cause diarrhea and/or _____.
  - May lead to _____-oral contamination.

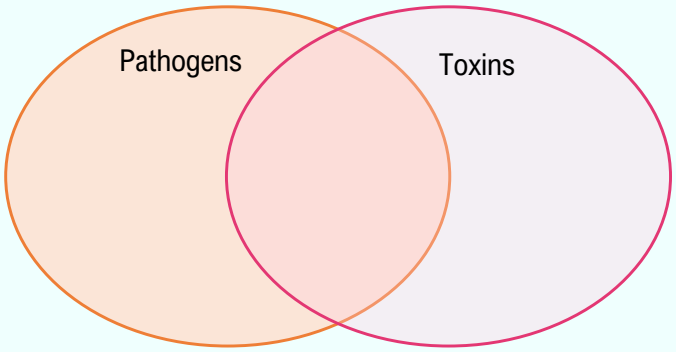
- **Toxins:** hazardous _____.
  - Naturally occurring: from plants, _____, etc.
    E.g., solanine in green potatoes.
  - Contaminants: environmental _____, e.g., mercury.
  - Residues: small amounts of _____.

Long term exposure is _____ concern.

- Proper food _____ can limit foodborne illness.

EXAMPLE

Fill in the Venn diagram below about pathogens and toxins.



Statements

a. May cause foodborne illness.
b. May be spread by sick people.
c. Include heavy metals.
d. Long-term exposure to small amounts is a concern.
e. May be produced by some plants.
f. Includes norovirus, the most common cause of foodborne illness.
g. Includes bacteria or products made by bacteria.

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PRACTICE

Which populations are at increased risk for hospitalization or death from foodborne illness?

I) College-age students.

II) Elderly individuals.

III) Infants.

a) I & II. b) I & III. c) II & III. d) I, II, & III.

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Safe Food Handling

◆ To prevent foodborne illness from _____, USDA recommends the core 4 food safety practices:

1. Clean

◆ Wash hands & _____ often.

◆ Use appropriate cleaning materials.

◆ Don't eat food that has fallen on the floor.

2. Separate

◆ Block **cross-contamination:** spreading microorganisms between foods.

◆ Different cutting boards for _____ & veggies.

3. Cook

◆ Check cooking temperature with thermometer:

145°F _____ & fish. 165°F Pork.

_____°F Ground meat. 165°F Poultry.

◆ Avoid _____ meat & fish.

4. Chill

◆ **Danger zone:** temperatures favorable for microorganisms → ___ °F - ____ °F

◆ Refrigerate _____.

◆ Thaw foods in the _____.

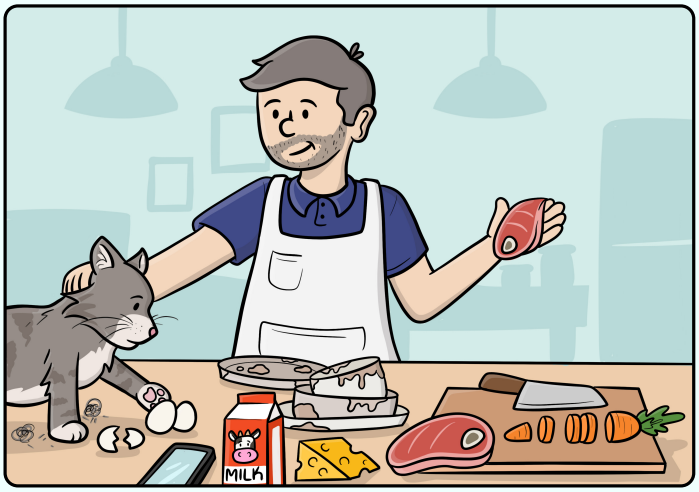
◆ High-risk foods & situations:

- Raw _____.
- _____ milk.
- Picnic/party foods.
- _____ in certain regions.

EXAMPLE

In the image below, identify three ways Bruce is not following the core 4 food safety measures.

1	_____
2	_____
3	_____



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PRACTICE

The CDC estimates that 1 in every 25 packages of chicken at the grocery store is contaminated with *Salmonella*, a bacterium that causes foodborne illness. Which of the following pieces of advice would be most relevant to preventing infection from *Salmonella* in chicken?

a) Wash your hands before handling any chicken.
b) Use different cutting boards for your chicken and vegetables when preparing food.
c) Buy organic or naturally processed chicken.
d) Make sure chicken is cooked to at least 140° F.

PRACTICE

Which of the following would be an example of potential cross-contamination?

a) Reusing steak marinade on uncooked vegetables.
b) Placing dairy products in a cooler with fruits while coming home from the store.
c) Using the same cutting board for raw chicken and vegetables, but washing with warm soapy water between items.
d) Cooking vegetables and pork chops in the same pan.

PRACTICE

Which temperature below is in the "danger zone" for the growth of bacteria in foods?

a) 32°F. b) 0°F. c) 145 °F. d) 100 °F.

PRACTICE

Which of the following would be considered a high-risk food situation?

a) Eating cooked salmon at a restaurant.
b) Drinking raw/unpasteurized milk.
c) Drinking municipal water in the state of New York.
d) Eating at a buffet where food is kept at 140°F.