# **Providing Safe Food**



Name\_ True or False? ① \_\_\_\_\_ A food handler's hands can transfer pathogens from one food to another. 2 \_\_\_\_\_\_ Food handlers who don't wash their hands correctly can cause a foodborne illness. 3 \_\_\_\_\_ A foodborne-illness outbreak is when two or more people get sick after eating at the same place. 4 \_\_\_\_\_ Adults are more likely than preschool-age children to get sick from contaminated food. **How Food Becomes Unsafe** For each situation, circle the letter next to the way in which food became unsafe. 1 Leftover chili is cooled on the counter. A Cross-contamination B Poor personal hygiene C Time-temperature abuse D Poor cleaning and sanitizing ② A food handler wearing gloves places a chicken breast on the grill and then places lettuce and tomato on a bun. A Cross-contamination B Poor personal hygiene C Time-temperature abuse D Poor cleaning and sanitizing

- ③ A food handler prepping a salad stops to scratch an itch on her arm and then returns to making the salad.
  - A Cross-contamination
  - B Poor personal hygiene
  - C Time-temperature abuse
  - D Poor cleaning and sanitizing
- 4 After prepping raw chicken on a cutting board, a food handler wipes the cutting board with a towel and then uses the same cutting board to slice tomatoes for a salad.
  - A Cross-contamination
  - B Poor personal hygiene
  - C Time-temperature abuse
  - D Poor cleaning and sanitizing

#### **Activity** Quiz 1: Providing Safe Food

#### **TCS Food**

Place an X	next to each food that is or contains a TCS food.
1	Baked potatoes
2	_ Orange juice
3	Pizza with diced tomatoes and green pepper
4	Poached salmon
(5)	_ Refried beans
6	Scrambled shell eggs
7	Shrimp fried rice
8	_ Tofu ice cream
9	_ Vanilla milk shake
10	_ Whole-wheat bread

#### Activity Quiz 1: Providing Safe Food

#### **Answer Key**

Irue	or	Fa	se	
① T				

② **T** 

③ F

4 F

#### **How Food Becomes Unsafe**

① C

2 A

③ B

4 D

#### **TCS Food**

1, 3, 4, 5, 6, 7, 8, and 9 should be marked.

# **Forms of Contamination**



Nam	e	Date
True or	False?	
1	All pathogens need oxygen to grow.	
2	The most important way to prevent foodborn	ne illnesses caused by viruses is to control time and temperature.
3	Salmonella Typhi is commonly linked with gro	ound beef.
4	Parasites are commonly associated with seaf	food.
Pathoge	en Growth	
List the	six conditions that pathogens need to grow.	
•		
•		
used at	all. Some pathogens are linked with more than on	
	Hepatitis A	A Beverages
	Norovirus	B Eggs and poultry C Meat
3	Salmonella Typhi	D Fish
4	Shigella spp.	E Shellfish
5	Shiga toxin-producing <i>Escherichia coli</i>	F Ready-to-eat food
6	Nontyphoidal Salmonella	G Produce
		H Rice∕grains
		Milk/dairy products
		J Contaminated water
Contam	inants	
What ar	re the three types of contaminants that are a risk	to food? Give an example of each.
•		
•		

#### True or False?

- ① F
- (2) **F**
- (3) F
- (4) T

#### **Pathogen Growth**

- Food
- Acidity
- Temperature
- Time
- Oxygen
- Moisture

#### **Pathogens and Linked Food**

- ① E, F, J
- ② E, F, J
- 3 A, F
- 4 F, G, J
- ⑤ C, G
- 6 B, C, G, I

#### **Contaminants**

- Biological: Examples include bacteria, viruses, parasites, fungi, and toxins from plants, mushrooms, and seafood.
- Physical: Examples include foreign objects such as dirt, broken glass, metal staples, and bones.
- Chemical: Examples include cleaners, sanitizers, and polishes.

# **The Safe Food Handler**



Name	e Date
True or I	False?
1	You should wash your hands after taking a break to smoke.
2	You should not have painted fingernails when prepping food.
3	Wearing a dirty uniform or apron can contaminate food.
4	Use hand antiseptic before washing hands.
Handwa	shing Steps
Put the h	nandwashing steps in the correct order.
1)	A Vigorously scrub hands and arms for at least 10 to 15 seconds.
2	
3	
4	
5	E Rinse your hands and arms thoroughly under warm running water.
	That Can Contaminate Food
	<b>X</b> next to each action that can contaminate food.
	Touching your hair, face, or body
	Wearing a hat while prepping food
	Handling money
	Wearing a clean apron
5	Sneezing, coughing, or using a tissue
Exclude	or Restrict?
	${\bf E}$ next to the statement if the food handler should be excluded from the operation. Write an ${\bf R}$ next to the statement if handler should be restricted from working with or around food.
1	A food handler at a hospital has a sore throat and a fever.
2	A food handler at a nursing home has jaundice from an infectious condition.
3	A food handler at a restaurant was vomiting this morning from an infectious condition.

4 \_\_\_\_\_ A food handler at a restaurant has been diagnosed with an illness caused by Salmonella Typhi.

True or False?

① T
② T
③ T
4 F
Handwashing Steps
① D
② B
③ A
④ E
⑤ C
Actions That Can Contaminate Food
1, 3, and 5 should be marked.
Exclude or Restrict?
① E
② E
③ E
(4) E

# The Flow of Food: An Introduction



#### True or False?

- ① \_\_\_\_\_ Rinsing a cutting board will prevent cross-contamination with the next food item placed on it.
- 2 \_\_\_\_\_ Some thermometers cannot be calibrated.
- 3 \_\_\_\_\_ Chicken held at an internal temperature of 125°F (52°C) has been time-temperature abused.

#### **Cross-Contamination**

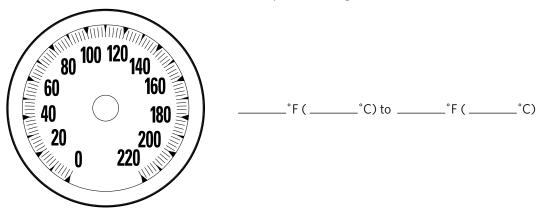
Name two ways you can prevent cross-contamination.

•

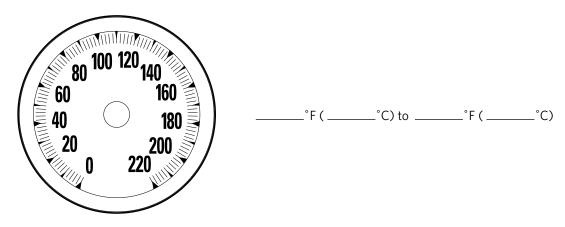
•

#### **Temperature Danger Zone**

① Fill in the thermometer below to show the temperature danger zone in either Fahrenheit or Celsius.



② Fill in the thermometer below to show the temperature range at which foodborne pathogens grow most quickly in either Fahrenheit or Celsius.



#### **Activity** Quiz 4: The Flow of Food: An Introduction

General Thermometer Guidelines
Fill in the blanks with the word or words that complete the sentences correctly.
① Thermometers used to measure the temperature of food must to accurate to
② Place a probe into the part of the food.
③ Wait seconds after inserting a bimetallic stemmed thermometer before recording the temperature of a food.
④ Make sure your thermometers are accurate by them regularly.
5 Sanitize thermometers by using a sanitizing solution appropriate for surfaces.

#### True or False?

(1) F

(2) **T** 

3) T

#### **Cross-Contamination**

Here are some ways to prevent cross-contamination:

- Use separate equipment for raw and ready-to-eat food.
- Clean and sanitize all work surfaces, equipment, and utensils before and after each task.
- Prep raw meat, fish, and poultry; and ready-to-eat food at different times.
- Buy prepared food.

#### **Temperature Danger Zone**

1 41°F (5°C) to 135°F (57°C)

2 70°F (21°C) to 125°F (52°C)

#### **General Thermometer Guidelines**

1 +/- 2°F or +/- 1°C

2 thickest

(3) **15** 

4 calibrating

(5) food-contact

# The Flow of Food: Purchasing, Receiving, and Storage



Name	Date

#### True or False?

- ① \_\_\_\_\_ You can store food in any durable container that you can cover.
- 2 \_\_\_\_\_ Arrange stored food by its use-by-date so that you use the oldest food first.
- 3 \_\_\_\_\_ You should reject a delivery of frozen steaks covered in ice crystals.

#### **Complete the Label**

Use the information below to complete the food-storage label.

On Sunday, 8/3, you prepped melon balls at 2:00 p.m. You used some for a fruit salad and stored the rest. Make the label for the food you stored.



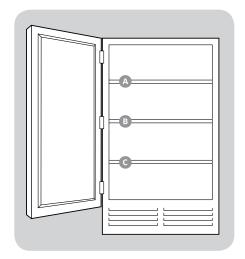
#### Fill in the Blank

Fill in the blank with the correct word.

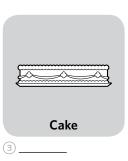
- ① Store food at least \_\_\_\_\_\_ inch(es) [\_\_\_\_\_ centimeter(s)] off the floor.
- ② Store raw meat, poultry, and seafood \_\_\_\_\_\_ ready-to-eat food.
- ③ Purchase food from \_\_\_\_\_\_, reputable suppliers.
- ④ Store ready-to-eat TCS food that is prepared on-site for no more than \_\_\_\_\_ days.

#### Store the Food

Next to the number of each food item, write the letter of the shelf it belongs on.





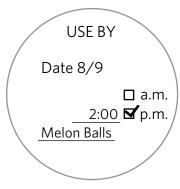




#### True or False

- ① F
- ② **T**
- ③ **T**

#### **Complete the Label**

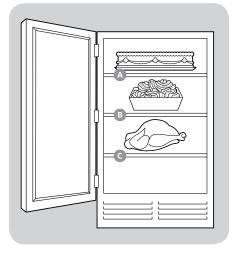


#### Fill in the Blank

- 1 six; fifteen
- 2 below
- ③ approved
- 4 seven

#### Store the Food

- ① C
- (2) **B**
- 3 A



# The Flow of Food: Preparation



•	Date
or False?	
Coolers are designed to cool hot	food quickly.
Cook a whole turkey to a minimu	m internal cooking temperature of 155°F (68°C) for 15 seconds.
The first step in cooling TCS food	d is to cool it from 135°F to 70°F (57°C to 21°C) within three hours.
Fish cooked in a microwave must	t be cooked to a minimum internal temperature of 145°F (63°C).
and any of the formation of	
ods of Thawing	
are the four acceptable methods of tha	<del>-</del>
	·
num Internal Cooking Temperatures	
num Internal Cooking Temperatures	rnal cooking temperature by writing the correct letter in the space
num Internal Cooking Temperatures	rnal cooking temperature by writing the correct letter in the space.)  A 165°F (74°C) for <1 second
num Internal Cooking Temperatures n each food item with its minimum intel peratures may be used more than once	rnal cooking temperature by writing the correct letter in the space.)  A 165°F (74°C) for <1 second B 155°F (68°C) for 17 seconds
num Internal Cooking Temperatures n each food item with its minimum intel peratures may be used more than onceSwordfish steaks	rnal cooking temperature by writing the correct letter in the space.)  A 165°F (74°C) for <1 second B 155°F (68°C) for 17 seconds C 145°F (63°C) for 15 seconds
num Internal Cooking Temperatures n each food item with its minimum inter peratures may be used more than onceSwordfish steaks Whole chicken	rnal cooking temperature by writing the correct letter in the space.)  A 165°F (74°C) for <1 second B 155°F (68°C) for 17 seconds C 145°F (63°C) for 15 seconds D 145°F (63°C) for 4 minutes
num Internal Cooking Temperatures neach food item with its minimum interperatures may be used more than once Swordfish steaks Whole chicken Pork chops	rnal cooking temperature by writing the correct letter in the space.)  A 165°F (74°C) for <1 second B 155°F (68°C) for 17 seconds C 145°F (63°C) for 15 seconds
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num Internal Cooking Temperatures n each food item with its minimum interperatures may be used more than once Swordfish steaks Whole chicken Pork chops Ground-beef patties Glazed carrots for hot-holding	rnal cooking temperature by writing the correct letter in the space.)  A 165°F (74°C) for <1 second B 155°F (68°C) for 17 seconds C 145°F (63°C) for 15 seconds D 145°F (63°C) for 4 minutes E 135°F (57°C)

# Answer Key True or False? (1) F ② **F** (3) F (4) F Methods of Thawing Here are the four acceptable methods of thawing food: In the cooler Under running drinkable water at 70°F (21°C) or lower In a microwave · As part of the cooking process Minimum Internal Cooking Temperatures (1) C (2) A ③ C ④ B (5) E **Cooling Food**

Divide it into smaller containers and use one of the following methods for cooling it:

- · Place it in an ice-water bath and stir it.
- Stir the chili with ice paddles.
- Place it in a blast chiller.
- The chili could also be made with less water than required. Cold water or ice could then be added after cooking to cool the chili and provide the remaining water.

# The Flow of Food: Service



Name	Date	
True or Fa	alse?	AND THE RESERVE OF THE PROPERTY OF THE PROPERT
(1)	Hold cold TCS food at an internal temperature of 41°F (5°C) or lower.	
②	Hold hot TCS food at an internal temperature of 120°F (49°C) or higher.	
③	Your operation may be allowed to hold chicken salad at room temperature if the operation has an appr procedure and the salad has a label specifying that it must be thrown out after eight hours.	oved, written
<ul><li>4)</li></ul>	When holding TCS food for service, the internal temperature must be checked at least every four hour	s.
Service G	iuidelines	
Under ead	ch picture, describe what the server is doing wrong and explain what the server should do instead.	
①		<b>D</b>
Short Ans	swer	
① Why sl	houldn't a server use a glass to scoop ice?	
② When	serving food, how many serving utensils must be available?	

- 1	Į LI	ᄄ	VI.	<b>G13</b>	C

(1) T

(2) F

(3) F

4) T

#### Service Guidelines

- ① The server is using his/her hands to put ice into a glass. The server should use an ice scoop or tongs.
- ② The server is holding the spoon by the food-contact surface. The server should hold the spoon by the handle.
- ③ The server is touching the food-contact surface of the cup. The server should carry cups and glasses in a rack or on a tray to avoid touching the food-contact surfaces.

#### **Short Answer**

- ① The glass may break or chip.
- ② When serving food, a separate utensil should be used for each food item.

# Food Safety Management Systems



Date\_

True or	False?
1)	Active managerial control focuses on managing the risk factors for foodborne illness.
2)	The purpose of a food safety management system is to prevent foodborne illness.
3	Identifying risks is the first step in implementing active managerial control.
Commo	on Risk Factors
ist the	five common risk factors responsible for foodborne illness.
<u> </u>	
Active	Managerial Control
	o of the six steps in implementing active managerial control.
DA Pu	ıblic Health Interventions
Place a	n <b>X</b> next to each item that is an FDA public health intervention.
1)	Demonstration of knowledge
2)	Staff health controls
3	Controlling hands as a vehicle of contamination
4	Time and temperature parameters for controlling pathogens
5	Consumer advisories
6	HACCP planning
HACCE	•
What d	loes the acronym HACCP stand for?

#### True or False?

1		

- 1

(3) T

#### **Common Risk Factors**

The five common risk factors for foodborne illness are:

- Purchasing food from unsafe sources
- Failing to cook food correctly
- Holding food at incorrect temperatures
- · Using contaminated equipment
- Practicing poor personal hygiene

#### **Active Managerial Control**

- Identifying risks
- Monitor critical activities
- Corrective action
- Management oversight
- Training
- Re-evaluation

#### **FDA Public Health Interventions**

1, 2, 3, 4, and 5 should be marked.

#### **HAACP**

Hazard Analysis Critical Control Point

# Safe Facilities and Pest Management



INAII	ie		Date		
True or	False?				
1)	Different areas of a	facility have diffe	erent lighting intensity requirements.		
2	When mounted on	hen mounted on legs, stationary equipment must be at least two inches (five centimeters) off the floor.			
3	An electrical power	outage is consid	ered by local regulatory authorities to be an imminent health hazard.		
4	The EPA creates na	tional standards	for foodservice equipment that comes in contact with food.		
Handw	ashing Stations				
What it	ems are needed in a han	dwashing station	n?		
Buildin	g Systems				
Match <sup>-</sup>	the term with its definition	on. <b>Note:</b> Some d	efinitions will not be used.		
1	Air gap	3	Cross-connection		
2	Backflow		Vacuum breaker		
A Air s	pace that separates an o	utlet of safe wate	er from a potentially contaminated source of water		
B Back	cup of sewage from an op	eration's floor dr	rain		
C Mec	hanical device that preve	nts backsiphona	ge.		
D Reve	rse flow of contaminants	through a cross	-connection into a drinkable water supply		
E Mea	sure of lighting intensity				
F Phys	ical link between safe wa	ater and dirty wa	ter		
G Prote	ective lighting				

#### True or False?

1 T

② **F** 

③ T

4 F

#### **Handwashing Stations**

Handwashing stations need the following items:

- Hot and cold running water
- Soap
- A way to dry hands
- Garbage container
- Signage for staff members to wash hands

#### **Building Systems**

- ① A
- (2) D
- (3) F
- 4 C

Name \_\_

# **Cleaning and Sanitizing**



Date \_\_\_

True or False? ① \_\_\_\_\_ Surfaces must be sanitized before they are cleaned. 2 \_\_\_\_\_ Cleaning reduces the number of pathogens on a surface to safe levels. 3 \_\_\_\_\_\_ Utensils cleaned and sanitized in a three-compartment sink should be dried with a clean towel. 4 \_\_\_\_\_ Soaking items for 30 seconds in water at least 171°F (77°C) is an acceptable way to sanitize items. When to Clean and Sanitize List four instances when a food-contact surface must be cleaned and sanitized. **Clean-In-Place Equipment** In what order must the steps for cleaning and sanitizing stationary equipment be completed? Take removable parts off and wash, rinse, and sanitize by hand or in a dishwasher if allowed B \_\_\_\_\_ Unplug the equipment © \_\_\_\_\_ Sanitize the equipment surfaces D \_\_\_\_\_ Rinse the equipment surfaces with clean water E \_\_\_\_\_\_ Allow the surfaces to air-dry © \_\_\_\_\_ Scrape or remove food from the equipment surface © \_\_\_\_\_ Wash the equipment surfaces Sanitizers List the five factors that affect a sanitizer's effectiveness.

#### Activity Quiz 10: Cleaning and Sanitizing

#### **Cleaning and Sanitizing in a Three-Compartment Sink**

Plac	e the following steps for cleaning and sanitizing in a three-compartment sink in the correct order
Α_	Sanitize items in third sink.
В _	Air-dry items on a clean and sanitized surface.
С_	Rinse items in second sink.
D_	Rinse, scrape, or soak items before washing them.
E _	Wash items in the first sink.

### **Answer Key** True or False? (1) F (2) **F** (3) F (4) T When to Clean and Sanitize A food-contact surface should be cleaned and sanitized at these times: After it is used • Before food handlers start working with a different type of food · After handling different raw TCS fruits and vegetables, for example between cutting melons and leafy greens • After four hours if items are in constant use **Clean In Place Equipment** (A) 2 (B) 1 © 6 © 5 (E) 7 (F) 3 (G) 4 Sanitizers Here are the factors that affect a sanitizer's effectiveness: Concentration Water hardness Temperature pH Contact time **Cleaning and Sanitizing in a Three-Compartment Sink** (A) 4 **B** 5 © 3 (D) 1 (E) 2