Food From
Unsafe Sources

Food Contamination



Poor Personal Hygiene

Improper Holding Temperatures Improper Cooking Temperatures



### A message from the Southern Nevada Health District

The Southern Nevada Health District's food regulations focus on the control of foodborne illness risk factors in food establishments. If you can control the 5 risk factors highlighted in this document, you can help prevent foodborne illnesses. It is imperative that the person in charge of a food establishment is knowledgeable about these risk factors and can convey this information clearly to food handlers. This information is enhanced through continuous training with emphasis on preventing foodborne illness.

### **Acknowledgements**

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A special thanks to Aminta Martínez-Hermosilla, REHS, Environmental Health Specialist II and Jay Johnson, Graphic Artist, for their expertise, guidance and dedication. Their contributions made this booklet possible.

Brisa Soto, REHS Environmental Health Training Officer FOOD FROM UNSAFE SOURCES

First things first ..... Once you have accepted food deliveries, you can't make unsafe food safe.

An approved source is a reputable supplier that has been inspected and follows regulations. During receiving, you should check foods for: proper temperatures, signs of contamination from pests or spills, spoilage, expiration dates, proper labeling, invoices/shell stock tags, and overall wholesomeness.



### Do you Accept or Reject?

Write "A" to accept or "R" to reject for each statement.

1	A bag of rice with water damage
2	A packaged bag of coleslaw mix at 45°F in good condition
3	Clean and unbroken raw shell eggs at 45°F
4	Live mussels missing the shell stock tag
5	Frozen chicken with large ice crystals inside the package
6	Frozen beef patties with no USDA stamp on the box
7	Fish with sunken and cloudy eyes
8	Vacuum-packed steaks with the seal broken at 41°F
9	Cheddar cheese with small mold spots
10	Tortillas in a bag with no manufacturer information or use by date
11	Fresh salmon with flesh that springs back to the touch
12	Milk past its "use by" date at 45°F
13	Two cans of beans with small dents on the seam
14	Fresh herbs from your neighbor's garden
15	Cooked pasta from an approved supplier at 38°F

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## POOR PERSONAL HYGIENE

**Handwashing** is a critical part of personal hygiene. It is important to wash your hands in a designated sink as required and when required to prevent foodborne illness.



Below are the steps for proper hand washing.

Draw a line from each step to its matching picture.

### Step 1

Wet hands with warm water (min. 100°F)



### Step 2

Apply enough soap to build up a good lather



### Step 3

Rub hands together vigorously for at least 15 seconds



### Step 4

Use warm running water to remove soap



### Step 5

Use a single use paper towel to dry hands



### Step 6

Turn off faucet with single use paper towel



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## POOR PERSONAL HYGIENE

#### **EMPLOYEE HEALTH POLICY**

Personal hygiene starts at home when you get ready for work each day. All of us carry disease-causing microorganisms that can make ourselves and others sick. As a food handler, you are responsible for taking care of your health to prevent foodborne illness. Tell your employer if you are experiencing any of the following symptoms or if you are diagnosed with an illness caused by the most infectious foodborne pathogens, the "Big 5."



What symptoms and pathogens should you be concerned with to help ensure a safe food establishment?

Fill in the blanks.

The 5 symptoms associated with foodborne illness are:	The "Big 5" pathogens are:
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

### **NOTES:**

# 4

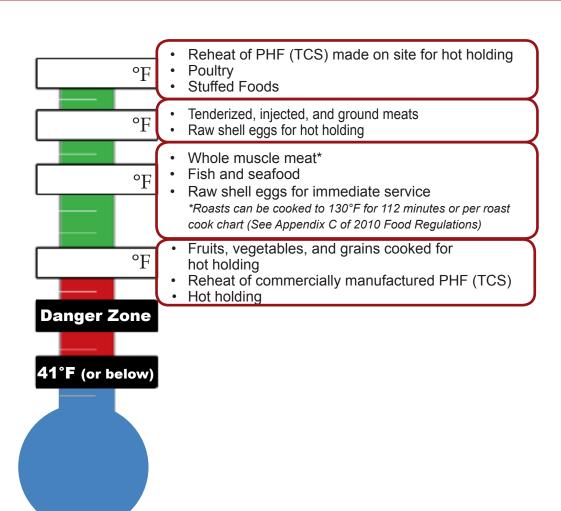
## IMPROPER COOKING TEMPERATURES

**Did you know** that you can't see, smell, or taste harmful bacteria that may cause foodborne illness? Cooking foods to their required minimum internal temperatures reduces these pathogens to safe levels. When checking internal temperatures of cooked foods, make sure you use a proper thermometer that has been calibrated and sanitized. Also, it is important to handle foods correctly before and after preparation to avoid any additional contamination.



What is the minimum internal cooking temperature required for safety for each of the food groups on the right?

Fill in the blanks.



## IMPROPER COOKING TEMPERATURES

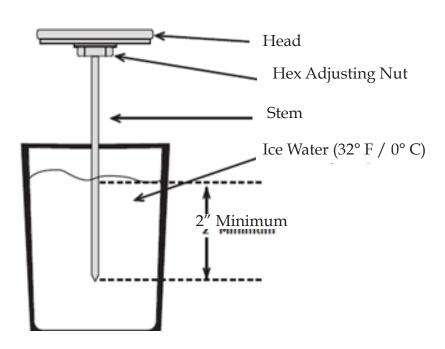
### THERMOMETER CALIBRATION

A thermometer is the most important tool you have to ensure food safety. Calibrating your thermometer is crucial before monitoring the internal temperatures of food. To obtain accurate readings, always use the right type of thermometer for the right food.



What is the correct order when calibrating a bimetallic stem thermometer?

Write the step number (1 - 5) next to each statement.



Step Add clean water (*Ice should not float*)

Step \_\_\_ Allow 30 seconds before adjusting to 32°F

Step \_\_\_ Stir well

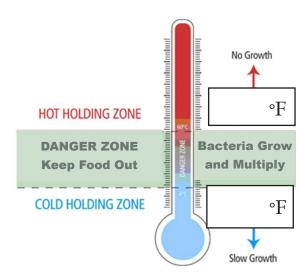
Step \_\_\_ Immerse thermometer Step \_\_\_ Fill a glass with ice

## IMPROPER HOLDING TEMPERATURES

**Even though cooking foods** reduces the number of microorganisms to safe levels, you must store foods at the right temperatures to keep them safe. It is important that Potentially Hazardous Foods (PHF) stay away from the temperature danger zone. So, keep hot foods hot and cold foods cold.



What is the range of the temperature danger zone? *Fill in the blanks.* 



A two stage cooling process is required for hot foods. Cooling foods quickly and safely is important to ensure foods stay a minimum amount of time in the temperature danger zone.



What is the required parameters for the two stage cooling process?

Fill in the blanks.

Stage 1: Cool from \_\_\_\_ °F to \_\_\_\_ °F in \_\_\_\_ hours

Stage 2: Cool from \_\_\_\_ °F to \_\_\_\_ °F in \_\_\_\_ hours

## IMPROPER HOLDING TEMPERATURES

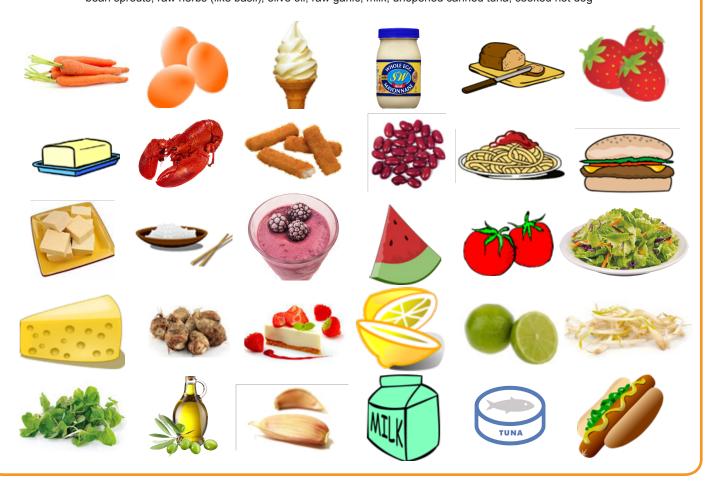
Potentially Hazardous Foods (PHF)
Time Temperature Control for Safety (TCS) Foods.

Foods likely to become unsafe need to be controlled through time and temperature to limit the growth of bacteria. What supports bacterial growth? Bacteria need six conditions to grow and you can remember them by using the acronym FAT TOM: Food that provides nutrients to survive, little or no Acidity in the food, Temperature between 41°F-135°F, sufficient Time to grow in the Temperature Danger Zone, the presence or absence of Oxygen depending on the bacteria, and a high Moisture content.



## Which of the following are PHF/TCS Foods? Circle the pictures that apply.

Raw, whole carrots; raw shell eggs; soft serve ice cream; mayonnaise; sliced bread; raw, whole strawberries; butter; cooked lobster; cooked fish sticks; dry beans; cooked spaghetti; cooked hamburger; tofu; cooked rice; yogurt; cut watermelon; raw, whole tomatoes; salad (cut lettuce); cheese; raw, whole root vegetable (like potato); cheesecake; cut lemon; cut lime; bean sprouts; raw herbs (like basil); olive oil; raw garlic; milk; unopened canned tuna; cooked hot dog



### FOOD CONTAMINATION

**Proper food storage and preparation** are key components of preventing foodborne illness. When storing and preparing foods, ensure they are protected from cross contamination: the transfer of germs from one surface to another. Keeping foods covered, storing raw animal proteins below and separate from ready to eat foods, using clean and sanitized equipment /utensils, and enforcing overall good employee practices will help keep food safe. All prepared foods should be covered, labeled, and dated when placed in long-term storage.



What is the proper refrigerated storage shown below? Write the name of the corresponding food group in the blanks.



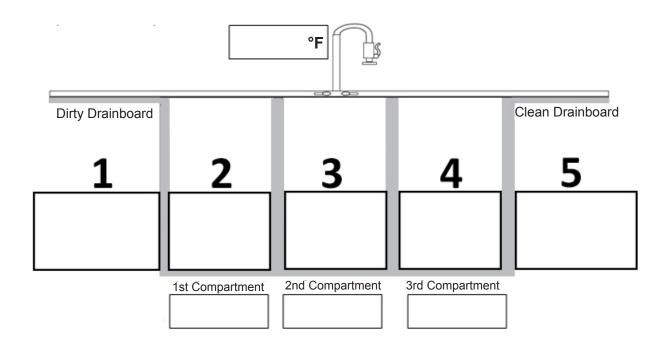
## FOOD CONTAMINATION

### Cleaning vs. Sanitizing

Food can be easily contaminated if the facility, equipment, preparation surfaces, and utensils are not kept clean and sanitized. Cleaning is the removal of food debris, oil, grease, and other visible residue from surfaces. Sanitizing reduces the number of pathogens on a food contact surface to safe levels, which can be done with the use of chemicals or heat.



What are the steps for proper manual ware washing?



For each picture below, identify the corresponding sanitizer in use (chlorine or quaternary ammonium compound) and match the following legend to the concentration shown on the test strip. **Legend**: C=correct; N=none; T=toxic











For more information, visit the SNHD Food Establishment Resource Library: www.SNHD.info/ferl

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