Oregon Department of
Early Learning
and Care

Office of Child Care Food Handler Manual

DEPARTMENT OF EARLY LEARNING AND CHILD CARE

Revision Date: 2/2018

Food Handler's Manual Table of Contents

Why Read This Book?

Think about the last time you ate out. Was the food served hot? Did the restroom have hand soap and paper towels? The Health Department looks for these things to keep adults and children from getting sick. Adults and children can get sick if food is left out at room temperature or if germs get into their food or drinks.

Hands can look clean but if they have germs on them, someone can get sick. Food can smell good but have germs on it that make it unsafe to eat. This is why you will want to develop safe habits to keep you, your staff, child care children, and your families healthy.

How to Use This Book

In the first few pages of this book, you will see the goals and outcomes that you will be tested on for your food handler certificate. You will need a score of 75 percent to pass the test. Throughout this book you will find study questions that will help you get ready to take the test for the food handler certificate. At the end of the book is a practice test for you to take and see how you do.

Some of the words in bold are explained in the glossary located in the back of this book.

Waiver of any Rules

The Oregon Administrative Rules (OAR) for the Office of Child Care may require specific compliance with some material in this food handler's manual. Parents cannot give facility operators permission to waive any rules. This manual also contains recommended best practices that should be followed by Registered Family Child Care providers. For Certified Child Care Centers and Certified Family Child Care providers, compliance with child care rules is mandatory.

This Belongs to You

This book belongs to you. If something comes up that you cannot answer with the information provided in this book, call your local health department for help. See below for phone numbers of local health departments:

Baker	541-523-8211	**Lake**	541-947-6045
Benton	541-766-6835	**Lane**	541-682-4035
Clackamas	503-655-8430	**Lincoln**	541-265-4112
Clatsop	503-325-8500 ex.1912	**Linn**	541-967-3888

Columbia	503-397-4651 ex.2021	**Malheur**	541-889-7279 ex.120
Coos	541-751-2425 ex.510	**Marion**	503-588-5357
Crook	541-416-3986	**Morrow**	541-676-5421
Curry	541-247-3300	**Multnomah**	503-988-3674
Deschutes	541-322-7400	**Polk**	503-623-8175
Douglas	541-440-3500	**Sherman**	541-506-2600
Gilliam	541-384-2061	**Tillamook**	503-842-3900
Grant	541-575-0429	**Umatilla**	541-278-5432
Harney	541-573-2271	**Union**	541-962-8800
Hood River	541-386-1115	**Wallowa**	541-426-4848
Jackson	541-774-8209	**Wasco**	541-506-2600
Jefferson	541-475-4456	**Washington**	503-846-4745
Josephine	541-474-5325	**Wheeler**	541-763-2850
Klamath	541-882-8846	**Yamhill**	503-434-7525

Instructional Goals and Learning Outcomes

Below are the instructional goals and learning outcomes that food handlers are expected to know to obtain their food handler certification.

Good Personal Hygiene

Instructional Goal

Food handlers will understand elements of good personal hygiene.

Learning Outcomes

1. **Identify the following as the correct technique for hand washing: (HAND WASHING IS VERY IMPORTANT)**

1. Running warm water
2. Soap & lather
3. Scrub hands thoroughly (approximately 15-20 seconds)
4. Dry hands with single-use paper towel, one-time use cloth towel roll, or air dryer
5. Sanitizer dip or use of hand sanitizers are not acceptable substitutes to hand washing.

2. **Identify the following as situations when food handlers need to wash their hands and when to double hand wash (Hand Washing is Very Important):**

1. After using the toilet and again when entering work area (DOUBLE HAND WASHING recommended)
2. Before and after handling raw foods
3. After smoking, eating, or drinking (DOUBLE HAND WASHING recommended)
4. After blowing nose (DOUBLE HAND WASHING recommended), or assisting a child
5. After sneezing or coughing (DOUBLE HAND WASHING recommended)
6. After handling dirty dishes
7. After handling garbage
8. After cleaning or using toxic materials
9. Before starting work
10. Before putting on or taking off gloves
11. Before and after bottle feeding infants
12. Before and after feeding children
13. Before and after diaper changes (DOUBLE HAND WASHING recommended)
14. After handling pets or pet supplies

3. **Knows not to work when he or she is ill with diarrhea, vomiting, fever, sneezing, and runny nose (WORK ONLY WHEN YOU ARE WELL).**

4. **Knows not to handle food with an infected cut or burn, pus or boil (DO NOT WORK WITH FOODS IF…).**

5. **Identify that fingernails should be trimmed short (FINGERNAILS).**

6. **Knows that improper use of plastic gloves can spread germs and does not substitute for proper hand washing (GLOVES SPREAD GERMS).**

7. **Knows that smoking, eating, drinking, and chewing tobacco are prohibited in food preparation, food and utensil storage areas (Take Care of How You Look and How You Act).**

Adequate Temperature Control

Instructional Goal

Food handlers will understand why hot/cold and reheating temperatures are important factors in disease prevention.

Learning Outcomes

1. **Identify the causes of food borne illnesses (What Makes Adults and Children Sick from Food?)**

2. **Identify the following types of thermometers, uses and cleaning (Food or Probe Thermometer):**
   - Refrigerator
   - Probe (food)
     - Thermocouple
     - Thermistor
     - Instant-read Bimetal

3. **Identify the proper technique for calibration of thermometers is to use ice water (Calibrating A Food Thermometer).**

4. **Identify the use of the probe thermometer when cooling, reheating, hot holding, and cold holding (Food or Probe Thermometer).**

5. **Identify the following techniques for rapid cooling (Speed is Important with Cooling):**
   - Ice Bath
   - Tubs & Buckets
   - Air Movement
   - Cooling & Reheating

6. **Knows what the holding temperatures are for potentially hazardous foods (The "Danger Zone", Reheating):**
   - Identify why foods should not be held between 41° F and 140° F (the "Danger Zone"). (As a best practice, the Office of Child Care recommends foods not be held between 41 ° F and 140° F).
   - Understand problems with temperature abuse of foods.
   - Understand what types of foods will support rapid bacterial growth.
   - Identify 140° F as the minimum temperature for hot holding potentially hazardous foods.

- Identify 41° F as the maximum temperature for cold holding. (As a best practice, the Office of Child Care recommends a maximum temperature of 41 ° F).
- Identify proper ice level for cold holding is level with the food.

7. **Identify that proper cooling requires foods to cool from 140° F to 41° F in six hours or less by cooling from (SPEED IS IMPORTANT WITH COOLING):**
    - 140° F to 70° F in 2 hours
    - 70° F to 41° F in four hours

8. **Identify the following as the approved thawing methods (COOLING LIQUID FOODS):**
    - Refrigerator
    - Running cold water
    - Microwave when followed by immediate cooking.

9. **Identify 165° F as the minimum temperature for reheating foods and that food must reach this temperature within 2 hours (REHEATING)**

Proper Final Cooking Temperature

Instructional Goal

Food Handlers will understand why cooking and reheating foods to proper temperatures is important for illness prevention.

Learning Outcomes

1. **Identify the following proper cooking (internal) temperatures (REHEATING):**

    - poultry – 165° F
    - hamburger – 155 ° F
    - pork, fish, eggs, lamb, seafood - 145° F
    - beef roasts- 130° F

2. **Identify that cooking to recommended temperature kills disease-causing germs (WHEN IS COOKED FOOD SAFE?).**

3. **Identify that reheating does not kill toxins that can cause illness (REHEATING).**

4. **Identify the following as proper equipment used for rapid heating and reheating (REHEATING):**

    - Stove
    - Microwave
    - Convection oven

Cross Contamination

Instructional Goal

Food handlers will understand why cross contamination is dangerous and know ways to prevent it.

Learning Outcomes

1. **Identify that in-use wiping cloths need to be stored in (50-100 ppm) sanitizer between uses (MAKING SANITIZER).**
2. **Correctly use test strips for checking sanitizer concentration (TESTING SANITIZER).**
3. **Once food has been served, it must be discarded if not used (What About Foods left at the Table).**
4. **Define and identify cross contamination (CROSS CONTAMINATION).**
5. **Identify the following methods to prevent cross contamination (CROSS CONTAMINATION):**
    - Wash, rinse, and sanitize utensils, work surfaces and equipment between uses.
    - Knives and cutting boards should be cleaned and sanitized when switching foods to be sliced.
    - Procedure for stationary surfaces (for example, table and countertops) cleaning is to wash with warm soapy water, rinse thoroughly with clear water, and wipe with 50-100 parts per million [ppm] chlorine residual or health department approved sanitizer.
6. **Identify that food handlers must use clean utensils, instead of hands, for dispensing food. Store scoops, spoons, etc. with handle extended out of the food (CROSS CONTAMINATION).**
7. **Identify the following storage conditions that will minimize the potential for cross contamination (KEEP FOODS SAFE FROM CROSS CONTAMINATION):**
    - Store raw meats and eggs below and completely separate from ready-to-eat food in the refrigerator.
    - Store food up and off the floor
    - Store chemicals and cleansers separate from food, utensils, and single service items in child-proof lock cabinets.
    - Properly label all chemicals and pesticides

Hand Washing is Very Important

Wash your hands often when working with food and drinks - this gets rid of germs that can make adults and children sick. The best way to wash your hands is to scrub for approximately 15 to 20 seconds with warm running water and soap, then dry them with clean paper towels, one-time use cloth towels or an air dryer.

Remember to always wash your hands!

- Before you touch anything used to prepare food
- Before and after you touch food that will not be cooked
- Before and after you work with raw meat, fish and poultry
- After you handle trash and take out garbage
- After you handle dirty dishes
- After using cleaning or toxic chemicals
- Before starting work
- Before putting on gloves and after taking them off
- Before and after bottle feeding infants
- Before preparing baby bottles
- Before and after feeding children
- Before and after diaper changes (double hand washing recommended)
- After handling pets or pet supplies

Double Hand Washing

Double hand washing or washing your hands a second time is not required, but is considered a "best practice" in all the following situations:

- After you go to the restroom (use the toilet) and wash hands again when you return to the kitchen
- After you eat
- After you blow your nose, cough or sneeze, because your hands have touched your nose or mouth.
- After taking a smoking break
- After changing a diaper

Hand Washing Sink

Wash your hands at the hand washing sink with warm water and soap. Dry your hands with paper towels or an air dryer.

A sink used for hand washing, bathing, or diaper- changing cannot be used in any way for preparation of food or drinks, or for dish washing.

If a sink is used for more than one activity, it must be washed, rinsed, and sanitized at 50-100 ppm after each activity use (for example, using the sink for classroom activities

Review

Write your answers to the study questions in the space provided.

1. **How long must you wash your hands? (HAND WASHING IS VERY IMPORTANT)**

2. **When must you wash your hands? (REMEMBER TO ALWAYS WASH YOUR HANDS!)**

3. **When is double hand washing recommended? (DOUBLE HAND WASHING)**

Food Borne Illness

Germs such as bacteria and viruses are everywhere. Think of your hands and fingernails as easily "contaminated." Just because they look clean does not mean they are clean. Germs are too tiny to see with your eyes.

If you do not wash your hands in the right way and keep your fingernails trimmed short, your hands can put germs in food that gets eaten by your staff and child care children. They may get sick from these germs. This is called "food borne illness" or "food poisoning."

Work Only When You Are Well

If you feel sick you should not go to work. The germs you bring to work can spread when you sneeze and cough, and when you touch food, dishes, counters, utensils, forks, knives and spoons, pots, pans, and adults and children.

Do Not Work If...

- You have a fever and sore throat.
- You have loose bowels (diarrhea).
- You are throwing up (vomiting).
- You have yellowing of the skin or dark tea color urine (jaundice), or
- If you have been diagnosed with any communicable disease. Immediately notify your supervisor, the families you do child care for, and the County Health Department.

Do Not Work With Foods If...

- You have an infected boil, burn, cut or sore on your hand. If the sore is not infected, wear a non- latex rubber or plastic glove (for example, polyvinyl)
- You are sneezing, coughing or have a running nose.

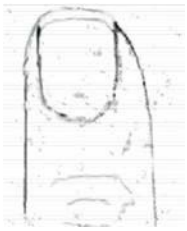
Take Care of How You Look and How You Act

Do not smoke or chew tobacco while you are working or when you are near food or dishwashing areas. Smoke only while you are on a break. After you smoke, it is recommended that you wash your hands twice before you return to work (double hand wash).

Jewelry

Limit the amount of jewelry you wear on your fingers and forearms to a plain wedding band, medical bracelet, or plain watchband. Jewelry can hide food particles and germs that can cause adults and children to become sick.

Fingernails



Be sure to scrub underneath your fingernails. Keep fingernails short. Do not wear fingernail polish or fake fingernails.

Hand Sanitizers

- Hand sanitizers do not substitute for hand washing at any time or any place – no exceptions.
- Hand sanitizers can only be used after hands have been thoroughly washed and dried.

Gloves spread germs

Improper use of gloves can also spread germs. Wash and dry your hands before putting on gloves. Change gloves between tasks. When you wear gloves be aware that gloves can spread germs onto food that will not be cooked. Even when you wear gloves, it is best to keep fingernails short. Avoid using latex gloves; some people are allergic to them.

Beverages

When you are thirsty while working, you may drink from a closed beverage container when these precautions are taken:

- beverage container must be covered and have a straw or handle, so your hands do not touch where your mouth touches. If you touch the top end of the drinking straw or lid, be sure to wash hands afterwards.
- container must be handled and stored in a way that will not contaminate food, utensils, equipment or any service items.
- container should be cleaned and sanitized regularly or discarded after each use.

Review

Write your answers to the study questions in the space provided.

1. **What should you do at a child care facility when you are sick? (WORK ONLY WHEN YOU ARE WELL)**

2. **How should you wear your fingernails for handling food? (FINGERNAILS)**

3. **What happens when gloves are not changed between tasks? (GLOVES SPREAD GERMS)**

4. **Can hand sanitizer replace hand washing? (HAND SANITIZERS)**

5. **What two things must you use to keep a personal beverage in the kitchen? (BEVERAGES)**
   1.

   2.

What Makes Adults and Children Sick from Food?

Food Borne Illness

Adults and children can get sick when the food they eat has germs or may have been contaminated with poisonous chemicals. Germs may cause food borne illness or food poisoning.

Potentially Hazardous Foods

Germs grow easily in foods like meat, fish, poultry, milk, eggs, re-fried beans, cooked rice, baked potatoes, and cooked vegetables. These are all foods that are moist, and they have protein that the germs need to grow. These are called potentially hazardous foods.

Germs grow well between the danger zone (41° F to 140° F) on these foods at warm temperatures.

Bacteria

Different kinds of germs can make adults and children sick. Bacteria is one kind of germ. They grow fast and they may cause food borne illness.

Some bacteria make toxins that act like a poison. Cooking does not destroy most toxins. Almost always the food looks and smells good, but it may have enough bacteria or toxin to make someone sick.

Toxins can occur in many foods that have not been kept cold enough (or hot enough) for several hours.

Other Germs

A virus is another kind of germ that causes illness. A virus can get onto food that a sick person touch. A virus can also be in raw or uncooked foods. You can have a virus and not know it. Even before you start feeling sick, you may be passing viruses onto the food by not washing your hands after coughing, sneezing, or using the toilet. This is one reason why the law requires all food handlers to wash their hands using lots of soap and warm water (double hand washing is recommended after certain activities).

Tiny worms that live in fish and meat are called parasites. Cooking fish and meat to the right temperature will kill parasites.

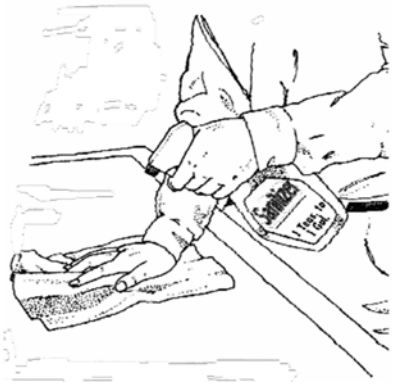
Chemicals

Adults and children can also get sick when chemicals get into the food. Be sure to keep chemicals away from food.

A Clean Workplace is Safer

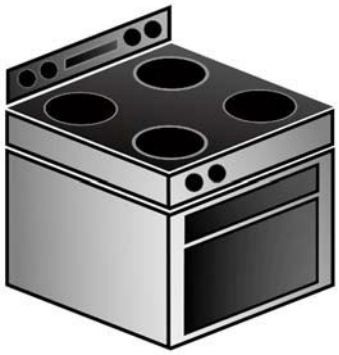
It takes more than soap and water to keep a food service area clean and safe. You will likely be using detergents and sanitizers.

Follow These Important Rules



1. Know what the directions say for using chemicals. Read the labels and know when to use them and how much to use. Be sure you understand the directions!
2. Keep all chemicals away from food. You must put them below food, never on a shelf above food, or above any area where you fix food.
3. Keep all chemicals in the bottles or boxes they come in. If you put them in a different container, label them clearly.

In-Place Sanitizing



Meat slicers, grinders and cutting boards that are too big to run through the dishwasher or too big to wash in the sink, still need to be cleaned and sanitized.

In-place sanitizing must be done after the equipment has been used. To clean big pieces of equipment in-place, you need to:

15. **Wash** them in hot soapy water.
16. **Rinse** them in clean water.
17. **Sanitize** them with freshly prepared sanitizer.

Follow the cleaning directions for each piece of equipment.

Wiping Cloths

Use wiping cloths to put sanitizer onto the clean surface of cutting boards and equipment. Between uses, store the wiping cloth in a sanitizer that is at least 50-100 parts per million (ppm) chlorine residual.

Making Sanitizer

You can measure bleach by using 1 to 2 teaspoons or the lid of the container. Mix the measured bleach with one gallon of water.

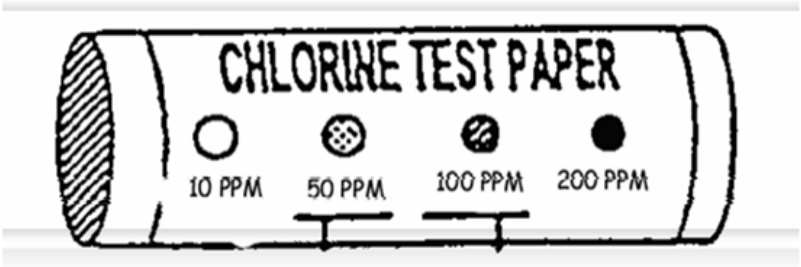
However you decide to measure the bleach, you will need to test the concentration to make sure it is not too weak or too strong.

Do not add soap to this mix because the sanitizer will not work with soap in it. If you use another kind of sanitizing mix, be sure it is approved by your local Health Department.

Testing Sanitizer

The only way to know the concentration of the sanitizer is to use test strips made for the type of sanitizer you are using. These can be found at any restaurant supply store.

50-100 ppm chlorine residual

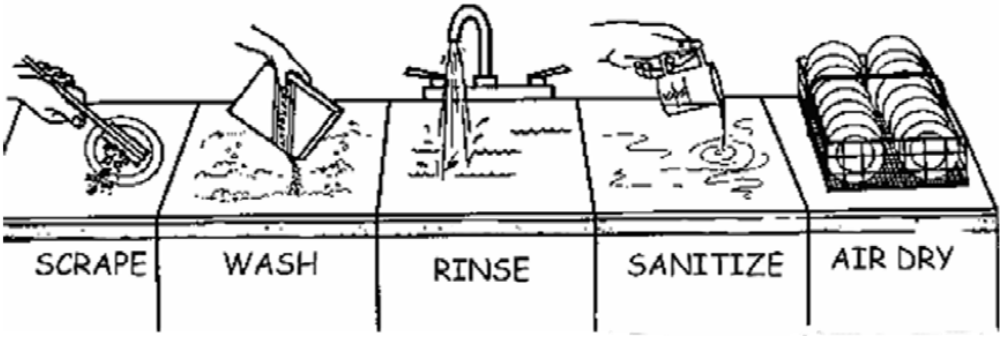


Use special test strips that are made for the sanitizer you are using. For chlorine or bleach, the test strip should turn a blue color that indicates 50 to 100 parts per million (ppm).

Look at the color chart on the test strip container. If the sanitizer has less than 50 ppm it is too weak. If it is **over 200ppm**, it is too strong and can make adults and children sick.

Change the sanitizer when it starts to get dirty. The sanitizer stops working when it gets dirty.

5-Step process for washing dishes by hand



Washing By Hand

Using a Three Compartment Sink

1. Scrape and/or pre-rinse food from the dishes and utensils.
2. Wash with detergent and hot water in the first sink to remove the food particles and any greasy material.
3. Rinse with clean, hot water to remove any soap or food in the middle sink.
4. Sanitize in the third sink for 10 seconds to kill any bacteria.
5. Air dry the dishes and utensils before putting them away.

Remember!

SCRAPE, WASH, RINSE, SANITIZE, AIR DRY!

Review

Write your answers to the study questions in the space provided.

1. **What is it called when someone gets sick from eating food with germs or toxins on it? (What Makes Adults and Children Sick from Food?)**

2. **Where must chemicals be stored? (Chemicals and Safe Storage Practices)**

3. **Describe In-Place Sanitizing. (In-Place Sanitizing)**

4. **Where do you store a wipe cloth when you are not using it? (Wiping Cloths)**

5. **How do you know that the sanitizer is at the right concentration? (Making Sanitizer)**

6. **Will sanitizer work when soap is added to it or if it gets dirty? (Testing Sanitizer)**

Temperature Control

This section is about killing germs with cooking and slowing their growth by keeping the food hot or cold. This is called **temperature control.** You need a thermometer to check food temperatures.

The "Danger Zone"

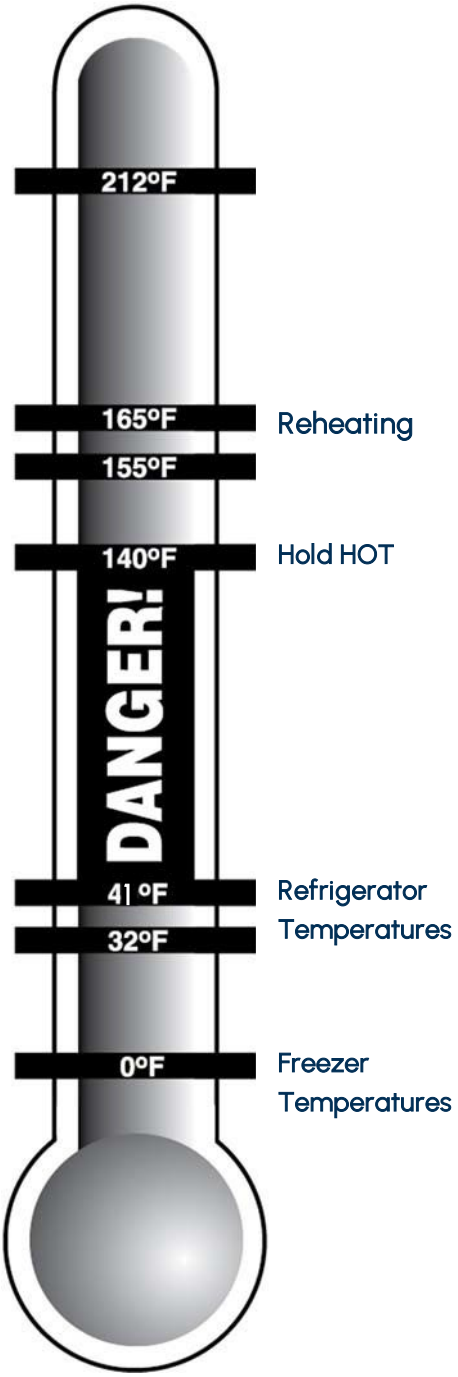
Germs like *bacteria* need time, food, moisture, and temperature to grow. The temperature between 41° F (7 ° C) and 140° F (60° C) is the ***"Danger Zone!"***

When food sits in the ***"Danger Zone", bacteria*** can grow fast and make toxins that can make you and others sick.

Refrigerator Thermometer

Every refrigerator is required to have a spirit stem thermometer (red or liquid filled). This thermometer must be located where it is easy to see when you open the refrigerator door.

Every **refrigerator thermometer** should read 41° F or less. If the thermometer reads above 41° F, then use a **food thermometer** to check the temperature of food inside of the refrigerator.



Date Marking

Potentially hazardous foods that are **ready-to-eat** must be marked with the use-by or discard date.

Certified Child Care Centers and Certified Family Homes are required to follow OAR 414-300-0250(5)(e):

OAR 414-300-0250(5)(e):

"Leftover prepared food which has not been served shall be labeled and dated, rapidly cooled, and used within 36 hours, or frozen immediately for later use."

2 days

Expressed breast milk must be used within 2 days (48 hours). Frozen breast milk must be used within 24 hours of thawing.

1 day

Food used within one day is not required to be date marked.

Examples of items requiring date marking:

- Unsealed or opened jar baby food that has not left the kitchen
- Formula / breast milk
- Leftovers

Review

Write your answers to the study questions in the space provided.

1. **You need a thermometer to check food_____. (FOOD TEMPERATURES)**

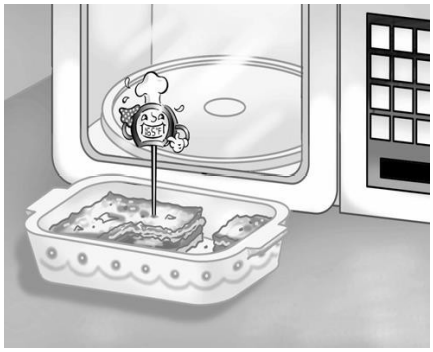
2. **What does it mean when food is in the "Danger Zone?" (THE "DANGER ZONE")**

3. **Where in the refrigerator should the thermometer stored? (REFRIGERATOR THERMOMETER)**

4. **How many days can you keep ready-to-eat food in the refrigerator at 41° F (7°C)? (DATE MARKING)**

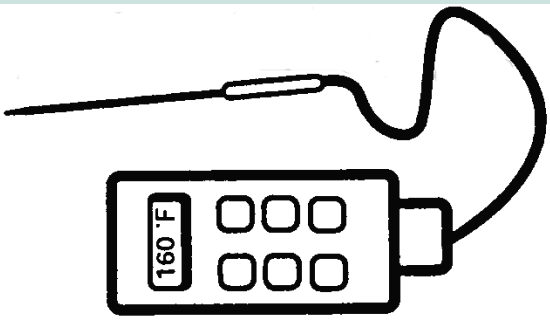
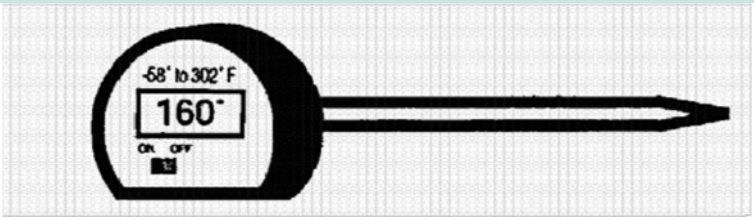
Food or Probe Thermometer

Using a thermometer is the only way to know the temperature of food. Anyone working with food needs to know how to calibrate and use a thermometer.



Take temperatures in the thickest part of the food. When taking temperatures of a large amount of food like a big piece of meat, be sure to take the temperature in two or more locations. This way you will know that the food is heated to the right temperature throughout.

Three types of food thermometers are shown on the next page. These thermometers are also known as metal-stem probe thermometers.

Types of Food Thermometers	Speed	Placement
Thermocouple – most models can be calibrated.		
	2-5 seconds	¼" or deeper in the food as needed
Thermistor – some models can be calibrated.		
	10 seconds	At least ½" deep in the food
Instant-Read Bimetal (0F to 220F) – most models can be calibrated.		
	15-20 seconds	2- 2 ½" deep

Refer to manufacturer instructions to find out if your thermometer can be calibrated.

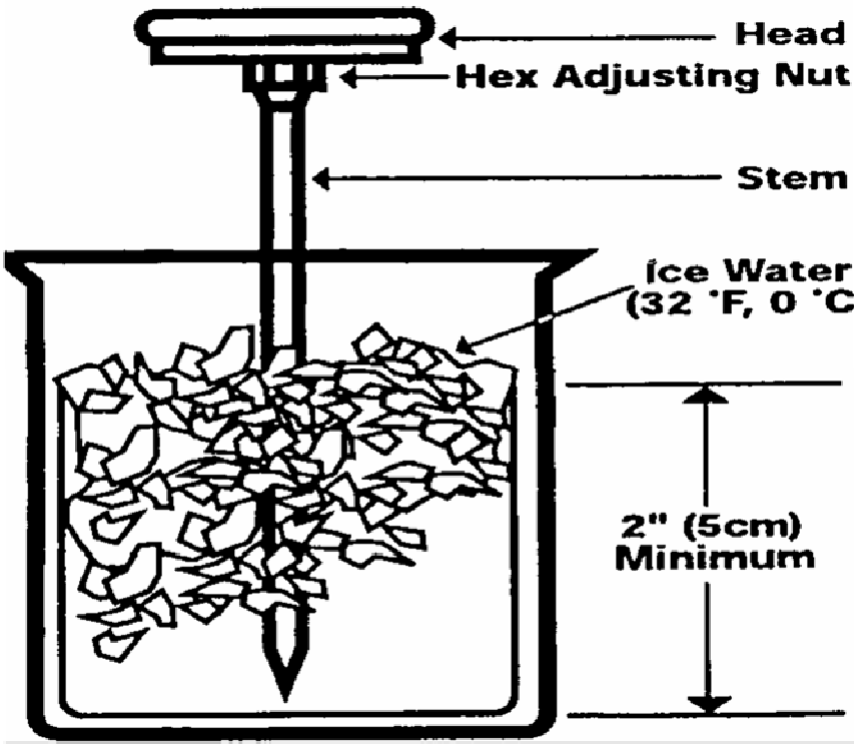
Calibrating A Food Thermometer

When you use a food thermometer you need to make sure the reading is accurate. An easy way to do this is to use ice and water.

Pack a large cup to the top with crushed ice and cold water. Put the thermometer at least 2 inches into the water. After 30 seconds, read the dial. It should read 32° F (0° C).

If it does not read 32° F (0° C) after you have waited at least 30 seconds, you need to:

1. Leave it in the ice water.
2. Use pliers or a wrench and turn the nut on the back of the thermometer until the needle reads 32° F (0° C). Add ice as it melts.
3. Wait 30 seconds. Keep repeating these steps until the thermometer reads 32° F (0° C).



Calibrate your food thermometer every day and whenever it is bumped or dropped. This way you will know that it is telling you the correct temperature.

Preparing Food

Wash your hands first. Bring out only the amount of food that you can work on at one time. This practice will help limit bacteria growth.

Cooking Food

Use a probe food thermometer to check temperatures while cooking food to make sure that it gets done all the way inside. A thermometer that works best shows a range of 0° F (-18 ° C) to 220° F (104 ° C). Even if you use a thermostat to control the temperature in the oven, you still need to use a thermometer to know the temperature in the center of the food.

Different foods must reach different temperatures to be done or safe. Wash and **sanitize** the thermometer each time you check the temperature of a food.

When is Cooked Food Safe?

Here are a few examples of **potentially hazardous foods** and how hot they must be to be safe. They can be hotter, but they must be at least this hot for 15 seconds or more to kill germs:

- *Rare Roast Beef:* 130° F (54 ° C)
- *Pork, Fish and Eggs:* 145° F (63 ° C)
- *Beef, Lamb, and Seafood:* 145° F (63 ° C)
- *Steak, Hamburger and all ground meats except poultry:* 155 ° F (68 ° C)
- *Poultry and Stuffing:* 165° F (74 ° C) (stuffing should be cooked outside of Poultry)

You must place the thermometer in the thickest part of the meat or in the center of the food to get a true reading. Do not touch the bone with the stem of the thermometer to prevent a false reading.

Review

Write your answers to the study questions in the space provided.

1. **Why is it important to use a metal stem, probe, or food thermometer to check the temperature? (FOOD OR PROBE THERMOMETER)**

2. **How do you calibrate a food thermometer? (CALIBRATING A FOOD THERMOMETER)**

3. **How often should you calibrate a food thermometer? (CALIBRATING A FOOD THERMOMETER)**

4. **What do you need to do with a thermometer after you use it and it has food on it? (PREPARING FOOD)**

5. **What are the cooking temperatures of eggs, fish, pork, steak, rare roast beef, chicken, and hamburger? (WHEN IS COOKED FOOD SAFE?)**

°F

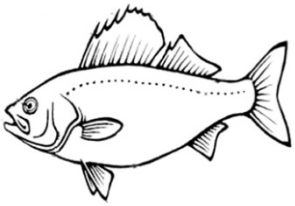
°F

°F

°F

°F

°F



°F

Cooling & Reheating

This section is about how to get cooked foods cold (**cooling**) and how to **reheat** cold food safely through the *"Danger Zone" 41° F to 140° F*.

Improper cooling is one of the major factors for food poisoning.

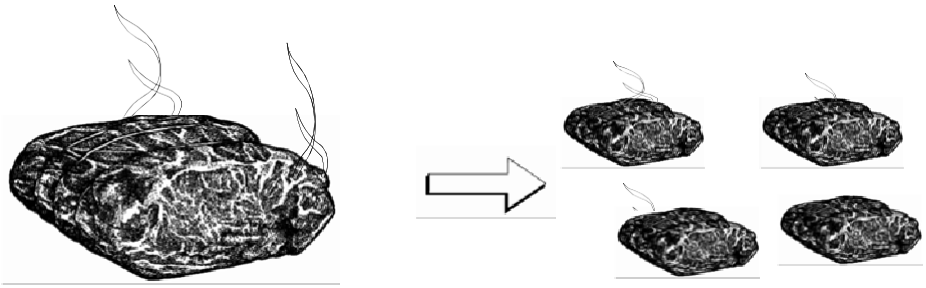
Fresh is Best

You always take a chance that bacteria can grow and produce toxins when your cool food.

Reheating will not destroy all toxins. It is safest to make foods fresh each day, just before you serve it.

Speed is Important with Cooling

If you must make food in advance or save left over food, cool it as **fast** as you can to prevent bacteria growth and toxin production.



Cooling Solid Foods

When cooling solid cooked foods such as roast, turkey, and solid cuts of meat, be sure to:

1. Cut large roasts and turkeys into smaller portions. This will help them to cool faster.
2. Put all meats and other hot food in shallow metals pans in the refrigerator.
3. Do not cover the food until it has cooled to 41° F or below.

Cooling Soft/Thick Foods

Cool soft/thick foods such as refried beans, rice, potatoes, stews, chili, thick soup or thick sauces, by pouring them into a 1" shallow metal pan. Use a sheet pan for very thick foods like refried be

Cooling thick food is not easy. Whenever possible, use a flat pan and spread the food out as shallow as you can to speed up the cooling.

When cooling food in shallow metal pans, be sure to:

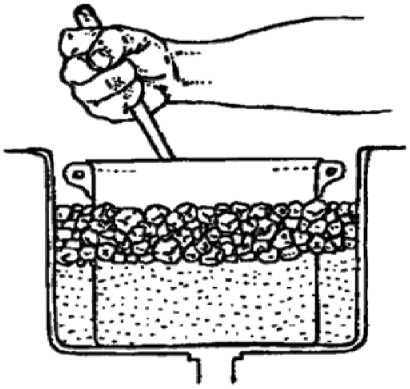
- Pour hot food into shallow metal pans. The shallower the pan the faster the food will cool.
- Stirring food speeds up cooling time.
- Once food cools to 41° F (7 ° C), you can place food in a larger container and cover it. (41 ° Fis the maximum temperature recommended by the Office of Child Care.)

Cooling Liquid Foods

You can use shallow metal pans or the ice bath method to cool thin soup and sauces.

Ice Bath

When cooling food with an ice bath, be sure to:



4. Close the drain in a large food prep sink.
5. Place the metal pot or pan of hot food in the food prep sink.
6. Fill the food prep sink with ice up to the level of food in the container.
7. Add cold water to the ice.
8. Stir the soup or sauce often so that it cools all the way to the center. Ice paddles or cooling wands (specialized cooling utensils) can be used to speed up the cooling process.
9. Add more ice as ice melts.
10. The food must reach an internal temperature of 41° F (7 ° C) or below.

Air Movement

Air in the refrigerator must be able to move around the food. Pans and dishes also need to have space between them; do not crowd them. Do not stack pans or dishes on each other or on other containers during cooling.

Remember!

You can choose several ways to cool food, but no matter how you cool the food, it *must* drop from 140° F (60° C) to 70° F (21 ° C) within two hours and *then* drop from 70° F (21 ° C) to 41° F (7 ° C) within the next four hours.

Tubs & Buckets

Do not use bus tubs or plastic tubs or buckets to cool food. Plastic prevents the heat from escaping. These types of containers are too big; it takes hours, even days for food to cool in containers of a larger size.

- Use a food thermometer to check the temperature while it is cooling. If it isn't cooling fast enough, you will need to do something else to speed up cooling.
- Do not stack pans; leave space for air to move around them.
- Use a **food thermometer** to check the food temperature (clean and *sanitize* thermometer stem after each use.

2 hours

140°F (60°C) to 70°F (21°C) within two hours.

4 hours

70°F(21°C) to 41°F(7°C) within four hours.

- Use a food thermometer to check the temperature while cooling. If it is not cooling fast enough, you will need to do something else to speed up the cooling.
- Do not stack pans on top of each other; Leave space for air to move around.
- Use a food thermometer to check food temperature (clean and disinfect the thermometer body after each use).

Review

Write your answers to the study questions in the space provided.

1. **When cooling a large cut of meat what should you do? (SPEED IS IMPORTANT WITH COOLING)**

2. **When cooling a soft/thick food like refried beans what should you do to make sure the food cools fast? (COOLING SOFT/THICK FOODS)**

3. **How do you prepare an ice water bath for cooling food? (ICE BATH)**

4. **Describe two problems with using plastic buckets or bus tubs for cooling food? (TUBS & BUCKETS)**

   1.

   2.

5. **Food must cool from 140° F (60° C) to what_temperature within 2 hours? (2 HOURS)**

6. **Food must cool from____temperature to___temperature within 4 hours. (4 HOURS)**

Reheating

Food that is cooked and then cooled may need to be heated again. *Reheat food quickly (within two hours) to 165° F (74 ° C).*

The best way to do this is on stove burners, or in microwave ovens, convection ovens, or double boilers.

Do not use anything that will heat the food slowly, because it takes too long to pass the *"Danger Zone",* between 41° F and 140° F.

Stir the food to be sure that all parts of it are hot. Then use your *thermometer* to check the temperature. It must be at least 165° F (74 ° C).

Cold Holding

Always keep cold food at 41° (7 ° C) or lower and do the recommended date mark according to the temperature (see Date Marking).

Fish, shellfish, poultry, milk and red meat will stay fresh longer if you hold them cold at 41 ° F (5 ° C) or colder.

Use a *food thermometer* to check the food stored in refrigerators. Spirit stem thermometers (red liquid filled) must be kept in the front of the refrigerator, the warmest area of the refrigerator.

Using Ice

If you use ice to keep the food cold on a salad bar or food display, be sure that the ice comes up to the level of the food that is in the pan or the dish.

Food must be 41° F (7 ° C) or colder when you put it in the ice.

Thawing Frozen Foods

Plan ahead to allow enough time to thaw foods in one of these three safe ways:

- Thaw food in the refrigerator; it may take several hours to a few days. This is the best and safest way. Be sure to put meat in a container to catch the meat juices and to keep them from dripping. Put raw meats on the bottom shelf away from ready-to-eat foods (foods ready for consumption).
- Hold the food under cold running water.
- Defrost in a microwave oven and then cook it right away.

Never thaw food at room temperature, on a counter or in warm or hot water. These methods let the food get into the **"Danger Zone"**.

Hot Holding

After the food is cooked and ready to serve, you will need to keep it warm enough to stop any germs from growing.

Keep Hot Food at 140° F (60° C) or Hotter

The only way to know that the food is hot enough is to check the food with your *food thermometer* to always make sure the food stays at least 140° F (60° C).

Ways to Help Keep Food Hot

Stir food, to keep food evenly heated. Keep a cover on the pans to help keep the heat in and the food warm enough.

What About Foods left at the Table

When a child or caregiver leaves food on a plate or at

the table, you must throw it away. If you have food like chips, rolls and bread and some of it is left over, you cannot serve it again.

Unopened packages of crackers, jelly, candy or sugar may be served again.

Review

Write your answers to the study questions in the space provided.

1. **What temperature must be reached when you reheat food? (REHEATING)**

2. **How much time do you have to reheat food to that temperature once it has cooled? (REHEATING)**

3. **What is the temperature that food must be at when holding food cold? (COLD HOLDING)**

4. **What are three ways to thaw food safely? (THAWING FROZEN FOODS)**

   1.

   2.

   3.

5. **What temperature must food stay at when you hold food hot? (HOT HOLDING)**

6. **How do you know that the food is staying at that temperature? (HOT HOLDING)**

7. **If someone hardly eats his or her food, can you serve it again to someone else? (WHAT ABOUT FOODS LEFT AT THE TABLE)**

Safe Handling of Baby Food and Bottles

Best Practices

- Serve food to baby from a dish, not from a jar or can.
- Return the opened jar of food to the refrigerator immediately; discard after 36 hours.
- Throw away uneaten food from the dish.
- Prepare infant food in approved kitchen (for example, in a center or certified family home)
- Spoons and other multiple use utensils must be washed, rinsed, sanitized, and stored in the kitchen.
- Check "use by" dates of baby food before feeding. *If the date is passed, throw it out.*
- Check to see that the safety button in the lid is down. If the jar lid doesn't "pop" when opened, don't use it.

- Don't heat baby food in jars in microwave. The heat is uneven and can produce "hot spots" that can scald baby's mouth and throat.

Why You Should Not Eat from a Baby Food Jar

- Surface of the container hasn't been cleaned and may contain harmful bacteria.
- Bacteria from the baby's mouth have contaminated the food, where they can grow, multiply and make you ill.

Suggested Storage of Baby Food (from USDA)

- *Opened or freshly made:* refrigerate.
- *Strained fruit and veggies:* 2-3 days (Certified Family Homes and Child Care Centers must discard after 36 hours)
- *Strained meats and eggs:* 1-day
- *Meat/vegetable combination:* 1-2 days
- Label all foods with the child's name.

Safe Handling and Storage of Baby Bottles and Training Cups

The proper handling of bottles and training cups is critical because milk and other formula products are excellent growth media for bacteria.

Once the formula/milk has been removed from the refrigerator, it must be heated and the drink consumed immediately.

Allowing formula/milk to sit at room temperature or in a heating device provides the environment needed for bacterial growth.

If there is no local Health Department approved food service area in the infant rooms, bottles and training cups must be stored and heated in an approved kitchen, or food service kitchen.

When parents provide individual bottles and training cups, they must be brought to the facility freshly made each day with only the amount of formula, in each bottle or cup, the child will drink at one feeding.

All bottles and training cups must be labeled with the child's name and only used for the intended child.

All bottles and training cups must be refrigerated at 41° or below immediately upon arrival.

The bottles and training cups stored in the refrigerator must be covered, wrapped, or otherwise protected from contamination for storage in the refrigerator.

Caregivers must wash their hands thoroughly before and after handling food and bottles, and in between feeding each child. (See Double Hand Washing).

Children's hands must be washed thoroughly before and after handling food and bottles.

If bottles are to be warmed, bottles must be placed in a container of hot, but not boiling water, until the desired temperature has been reached, after which the bottle must be shaken well and the milk temperature tested before feeding.

Bottles must never be warmed in a microwave oven because it results in hot spots, heats unevenly, resulting in scalding of baby's mouth and throat.

The carrying of bottles and training cups by young children in the child care facility must not be permitted.

Discard leftover milk after warming and the feeding time ends (not to exceed one hour).

The bottles and training cups must be returned to the parent at the end of the day, to be washed and sanitized.

Family Style Food Service in Child Care Facilities

Definition: Family style food service

1. Providers serving food at table to all children.
2. Children serving themselves at table from serving dishes with serving utensils.
3. Food prepared in kitchen in individual servings and children self-serving.

For Certified Family Homes and Child Care Centers only, the following rules are required

When serving Family Style meals, where food is brought to the table in larger quantities and served to the plates at the table, a center/certified family home must have a written plan approved by the local health department, which must include at the least the following elements:

1. All staff engaged in food service must ha
2. All persons eating or serving food must wash the
3. Food must not be allowed to stand at room temperature in eith
4. Hot food must be kept at 140° F or hotter, or cold food must be h to children (41 ° F is recommended by the Office of Child Care).
5. All foods, dishes, and utensils must be kept covered until served.
6. Provide separate serving portions for each table.
7. Use serving utensils that are different from eating utensils.

ırrangements for mildly ill children to prevent the spread of illness, such as, disposable plates, cups and utensils and/or separate eating area.

9. Supervise the children so they don't share food.
10. Supervise the children or have an adult serve the second helping.
11. Food brought to the table and not eaten must be discarded.

Lunches and Snack Items Brought from Home

Lunches and snack items brought from the child's home or other source (store/restaurant) must be labeled with the child's name and date; discard all food items after 36 hours.

All potentially hazardous food items must be kept below 41° F, or above 140° F. Insulated containers may be used for milk, soup, and similar items.

Food intended for consumption for all children must be commercially prepared (for example, holidays, parties, special treats, etc.). Children must not share food items brought from home.

A refrigerator with an accurate spirit stem alcohol thermometer is required for monitoring air temperature at or below 41° F when potentially hazardous foods are stored. Milk or egg-based puddings/items must be refrigerated if they are not stored in an insulated container.

Feeding and Storage of Breast Milk in a Child Care Facility

Breast milk must be placed in cleaned and sanitized containers. Containers that prevent leakage must be used to prevent spilling during transport to home or facility.

All containers of breast milk must be identified with a label which will not come off in water or handling. All containers must have the date and time of collection and child's full name.

The container(s) must then immediately be stored in the refrigerator or frozen on arrival.

Expressed breast milk must be discarded if it presents a threat to the baby, such as:

- Breast milk in an unsanitary bottle or container/milk bag
- Breast milk that has been un-refrigerated for an hour or more.
- A bottle of breast milk that has not been refrigerated for over an hour.

Chilled or frozen breast milk may be transported from home to the child care facility in a cooler bag as long as the ambient temperature is below 86 ° F and the out- of-refrigerator time is less than two (2) hours.

Types of containers used for storing of breast milk

- Hard-sided plastic or glass container with well-fitting tops
- Freezer milk bags that are designed for storing breast milk.
- Disposable bottle liners are not adequate.

Storing Breast Milk

- All breast milk should be labeled before storing.
- Labeling must include first, and last name of child, date and time milk was expressed
- Storing milk in 2-4-ounce amounts may reduce waste
- Unused expressed breast milk must be discarded after 48 hours if refrigerated, or by three months if frozen, and stored in a deep freezer at 0° F.

Additional Information

- Unused frozen breast milk which has been thawed in the refrigerator must be used within 24 hours. It should not be refrozen.
- If there is any amount of milk left over after feeding, it is to be discarded.

- Frozen breast milk must be thawed under running cold water or in the refrigerator. Do not use a microwave oven to heat breast milk.
- Breast milk from a mother shall be used only with that mother's own child.

Instructions on How to Prepare Formula

It is ideal if families provide individual labeled bottles of formula for their child each day. Covered bottles should be brought to the facility each day and returned to the child's home each evening.

If formula mixing is required, it is important for the infant's health that formula be prepared correctly and stored safely. **Germs can get into formula bottles from:**

- hands, nose, or mouth of the person preparing the bottle.
- The counter or work area
- A bottle that was not well cleaned
- Unclean water used to make the formula.
- Formula stored too long.
- A bottle left at room temperature, in a bottle warmer or crock-pot for too long.

Bulk formula provided by parents or by the facility shall come in a factory-sealed container. The formula shall be of the same brand that is served at home and shall be of ready-to-feed strength or prepared according to the manufacturer's instructions using water from a source approved by the health department.

Be sure to follow the manufacturer's directions exactly for the formula type. Milk that is too diluted or too concentrated may have inadequate nutritional value for baby and may be hazardous to the baby's health.

- Wash your hands before preparing any food or formula
- Thoroughly wash the feeding bottle, nipple, cap and any other utensils with clean water and liquid detergent
- Sanitize utensils in the dishwasher or in boiling water for one (1) minute.
- Store utensils in clean covered containers
- Use water from a health department approved source.
- Let cold water run from the faucet for at least one (1) minute before you use water to make formula. *Never use hot water from the faucet because it can have lead from the pipes or faucets.*
- Boil water for one (1) minute and add to formula or store in clean container for later use.
- Place appropriate nipple guards or cover the prepared bottle.
- Formula made in advance must be stored in refrigerator and consumed within 24 hours. If refrigerated formula is not used within 24 hours, throw it out.
- Label bottles with the child's full name and date bottle were prepared. Label remaining formula with child's full name and when the formula was opened. The label should not come off in water or while handling.

- Cover the powder can lid firmly each time after use. Keep it in a dry and cool place. The powdered formula shall not be used beyond the stated shelf period.
- An open container of ready-to-feed or concentrated formula shall be covered, refrigerated, and discarded after 48 hours if not used.
- Bottles shall be warmed under running warm tap water or by placing them in a container of water that is no warmer than 120° F
- Bottles shall not be left in a pot of water to warm for more than five (5) minutes.
- To prevent burns from dripping water, do not hold the infant while removing the bottle from the hot water.
- After warming, mix gently and check the temperature of the formula before feeding the infant.
- Never leave formula at room temperature or in a bottle warmer
- Bottled formula that has been fed should not be reused because the formula will have been contaminated with saliva and bacteria.
- A bottle that has been fed over a period that exceeds an hour from the beginning of the feeding or has been unrefrigerated an hour or more shall not be served.

Food Service in Facilities without an Approved Kitchen

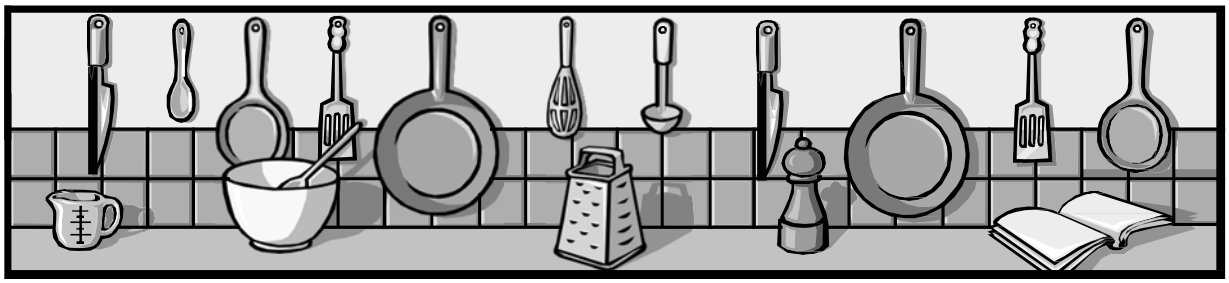
(Child Care Centers only)

Programs in Which There is no Separate Hand Wash Sink in Immediate Area

- Food or beverages that require preparation must ***not*** be stored at the site of a facility without an approved kitchen. Food preparation includes washing, fruit or vegetables, cutting, reconstituting juice, mixing and cooking or baking.
- Provide all snacks and beverages as commercially prewrapped, individual portions.
- Multiple serving size containers or packages must not be used or stored at a site without a hand wash sink.
- Store all prewrapped food in a cabinet used only for food service items.
- Utensils that require washing should not be used or stored.
- at this site. Utensils that require washing include can openers, knives, pitchers, etc.
- Children and staff must wash their hands prior to serving and eating.

Programs That Have a Hand Wash Sink in Immediate Classroom Area

- Food or beverages that require preparation must ***not*** be stored at the site of a facility without an approved kitchen. Food preparation includes washing, fruit or vegetables, cutting, reconstituting juice, mixing and cooking or baking.
- Staff must thoroughly wash their hands at the hand wash sink before serving food.
- The table or counter on which the snack and beverage are served must be washed, rinsed and sanitized with an approved sanitizer prior to serving food.
- Snacks and beverages from packages or containers containing multiple portions may be served in classrooms or child care settings that have a hand washing sink
- Snacks and/or beverages should not be served until immediately prior to consumption.
- Multiple use utensils must not be stored at the site. Multiple use utensils include can openers and juice pitchers or any other utensil that need to be washed, rinsed and sanitized between uses.



- Disposable utensils used to serve snacks or beverages must be used once and discarded.
- Children must wash their hands prior to eating.
- Foods served to children, but not consumed, must be discarded immediately following the snack period.
- Open food packages that have not been served or contaminated must be sealed in a disposable container and dated.
- Foods and beverages must be stored in a cabinet used only for food or food service items.

Involving Children in Cooking Projects

Cooking with children will be permitted only under the following conditions (exclude any child care providers and children with symptoms of illness).

The child care facility must have proper food handling and storage areas. Set up a special sanitized area for food preparation. Foods prepared by children cannot be offered for sale. Children must only handle food or ingredients that they individually will be eating.

Child Care Providers Must...

- Have a current Food Handler's Card
- Prepare for cooking project ahead of time.
- Gather sanitization supplies prior to starting the project.
- Review sanitation and food safety rules and procedures with the caregivers.
- Escort children to hand washing area to help with proper hand
- Collect the needed food supplies, ingredients and equipment.
- Provide individual containers for each child participating in the c
- Supervise the children; constantly monitor and be a part of any

Foods Never to be Used in Cooking Projects

- Raw meat
- Fish and poultry
- Eggs (pasteurized egg substitutes may be used)

Other Guidelines to Follow

- Children cannot share supplies or take prepared food or ingredients out of the classroom or the facility
- Only the child care provider can distribute the final product

Clean up

- Child care providers must monitor and help children clean up
- All one-time use (disposable) dishes, utensils and unused ingredients must be disposed of in the proper area of the facility
- All multi-use dishes, equipment, food preparation, and cooking surfaces must be scraped, washed, rinsed, sanitized and air dried

Honey & Syrup in Child Care Centers

Due to infant Botulism, avoid feeding infants under age one (1) any raw agricultural products including raw honey or corn syrup.

High Chairs

High chair trays must be treated like dishes. Remove all food debris before washing, rinsing, and sanitizing high chairs when cleaning between uses. Allow high chair to air dry before storage (see Making Sanitizer).

High chair safety belts must be washed and sanitized as needed or at least every week. You can do this by removing the safety belts or spraying it down with an approved sanitizing solution.

High chair trays must be protected from contamination between uses. This can be done by storing it in a cabinet with food-related items only or any other method approved by your local health department.

Review

Write your answers to the study questions in the space provided.

1. **What are some ways to serve baby food? (Safe Handling of Baby Food and Bottles)**

2. **How should bottles and training cups be labeled when brought from home? (Safe Handling and Storage of Baby Bottles and Training Cups)**

3. **List the approved containers for storing breast milk. (Feeding and Storage of Breast Milk in a Child Care Facility)**

4. **How many days can you keep breast milk stored at 41° F (7°C)? (Feeding and Storage of Breast Milk in a Child Care Facility)**

5. **How should you thaw breast milk? (Feeding and Storage of Breast Milk in a Child Care Facility)**

Safe Storage Practices

You want all the food you use to be healthy and safe. This section talks about how to safely store and handle food.

Good Food Needs Good Storage

- Keep all food off the floor.
- Store foods in a manner not to attract rodents or inse
- Store foods separate from medicines, chemicals, anc
- Store cleaners, chemicals, and medicines under child
- Store food in food-grade containers.

Cross Contamination

Cross contamination happens when germs from raw or unwashed foods get into other foods that are ready to serve or that will not be cooked again before you serve them. Cross contamination can also occur from unwashed hands, dirty utensils or cooking containers.

Keep Foods Safe from Cross Contamination

As a food handler you must prevent cross contamination and keep foods safe.

Here are some important ways that you can prevent cross contamination:

- Store raw meat, fish, eggs, and poultry on the lower shelves of the refrigerator.
- Don't let raw meat, fish, eggs, or poultry drip onto foods that will not be cooked before serving.
- Separate different types of raw meat from each other.
- Store unwashed or raw foods away from ready-to-eat food.
- Wash your hands between handling raw meat and foods that will not be cooked before eating.
- Never store foods that will not be cooked before serving in the same container as raw meat, fish or poultry.

Keep Foods Safe from Contamination

- Wash your hands before handling food.
- Wash, rinse and sanitize the cutting surface and all the utensils and knives every time you finish with a job or between preparing different foods.

- Store wipe cloths used around raw meat areas separate from wipe cloths used for other purposes.
- Use utensils to mix food.
- Use a clean spoon or fork to taste food and do not reuse it
- Store bulk foods in covered bins and containers with labels
- Store scoops and tongs with handle extended out of the food.
- Use clean utensils, instead of hands, for dispensing food.
- See sanitizing section for further suggestions.

Review

Write your answers to the study questions in the space provided.

1. **Where should you store cleaners and poisons in relation to food? (Safe Storage Practices)**

2. **Is it safe to use a clean garbage container or bags to store food? (Safe Storage Practices)**

3. **What is cross contamination? (Cross Contamination)**

4. **Where in the refrigerator should you store raw meat? (Keep Foods Safe from Cross Contamination)**

5. **List five ways to prevent cross contamination? (Keep Foods Safe from Cross Contamination)**

   1.

   2.

   3.

   4.

   5.

Conscious adults

1. If someone cannot breathe, cough or speak…
2. Ask, "Are you Choking" and ask the victim if you can help them. If they are choking, call 9-1-1 or the local emergency number.
3. Give First Aid for Choking.
   - Stand behind the person
   - Wrap your arms around their waist
   - Make a fist with one hand. Place your fist (thumb side) against the person's stomach in the midline just above the navel and well below the ribs
   - Grasp your fist with your other hand
   - Press into the stomach with a quick upward thrust
4. Repeat if necessary.

Infant or Child

If the infant or child is breathing…

the infant or child is breathing and continues to be able to speak or cough.

THEN…

Encourage continued coughing and stay with the victim to respond if their condition gets worse.

If the infant or child has ineffective coughing…

the infant or child has ineffective coughing, high pitched aspirations, and the inability to speak or cry.

THEN…

Call 9-1-1 and immediately begin the obstructed airway sequence described below

Tell someone to dial 9-1-1 to reach the Emergency Medical Services.

Conscious Child (over 1-year-old)

To dislodge an object from the airway of a child, perform abdominal thrusts

1. Stand or get on one knee behind the child.
2. Place the thumb side of your fist just above the child's belly button, grab your fist with your other hand.
3. Give quick upward thrusts until the object is removed or the child goes unconscious.

Conscious Infant (under 1-year-old)

To dislodge an object in the airway of an infant, perform 5 Back Blows and 5 Chest Thrusts by

1. Supporting the head and neck with one hand, straddle infant face down, head lower than trunk, over your forearm, supported on your thigh.
2. Deliver five back blows with the heel of the hand between the infant's shoulder blades.
3. Turn the infant over by sandwiching the infant between your hands and forearms and turn onto its back. With their head lower than their trunk use 2- 3 fingers on the center of the breastbone to deliver five chest thrusts. Each thrust should be about ½ - 1 inch deep.
4. Repeat back blows and chest thrusts until foreign body is expelled or the infant becomes unconscious.

Glossary

Term	Definition
Bacteria	Bacteria is a germ with only one cell that can multiply into large numbers when food is in the danger zone for more than 4 hours.
Calibrate	To calibrate a thermometer is to test it for accuracy and adjust if it isn't giving the correct temperature.
Chemicals	In this book chemicals are referred to as ingredients in cleaning, sanitizing, or pesticide products that make adults and children sick if eaten.
Cold holding	Cold holding is when you keep food cold by using refrigeration or ice.
Cooling	The process of taking a hot food and making it a cold food. Cooling must occur within six hours with the temperature dropping from 140° F (60°C) to 70° F (21 ° C) within 2 hours and from 70° F (21 ° C) to 41° F (7 ° C) within 4 hours.
Cross Contamination	When germs from one food item are passed to another food item, usually raw food to ready-to-eat food.
Date Marking	Prepared potentially hazardous foods that are to be refrigerated for more than 24 hours must be marked with the date of preparation or the date to discard unused food.
Danger Zone	The Danger Zone is when the temperature of food is between 41° F (7 ° C) and 140° F (60° C). This is called the danger zone because bacteria will grow quickly between these temperatures. The Office of Child Care recommends a maximum temperature of 41 ° F (5 ° C).
Double Hand Wash	Lather hands with soap and warm water for approximately 15 to 20 seconds and repeat a second time. Dry hands with paper towel, air dryer or roll of linen towels.
Food Borne Illness	Sickness caused from germs or toxins in food, also called food poisoning.

Term	Definition
Food Grade Containers	This means the container has been made specifically to hold food.
Food Thermometer	a probe or metal-stem thermometer used to take temperatures of food.
Hot holding	Holding food hot after it has been properly cooked or reheated. Food must maintain a temperature of 140° F (60° C) or hotter.
Infected	A cut or burn that is swollen, red, or has pus.
Metal-Stem-Probe Thermometer	A food thermometer used to take temperatures of food.
Refrigerator Thermometer	A thermometer kept in the warmest section of the refrigerator. This thermometer helps you know if the refrigerator is staying cold enough.
Reheating	The process of making a cold food hot. Food must be heated food from 41° (7 ° C) to 165°(74 ° C) within two hours.
Parasites	These are tiny worms that live in fish, meat, and humans.
Potentially Hazardous Foods	These are moist, protein-rich foods that bacteria will grow on when the temperature is between 41° (7 ° C) and 140° F (60° C).
Sanitize	The final step to removing bacteria from food contact surfaces that have just been cleaned. Many places use a solution made up of one teaspoon of bleach to one gallon of water to sanitize equipment and utensils.
Temperature Control	Temperature Control is keeping foods hot or cold enough to prevent bacteria from growing.

Term	Definition
Virus	Viruses are germs that can only reproduce inside of a living cell. It takes a small number of viruses to make someone sick. Many viruses are passed from the lack of hand washing especially after using the toilet and then touching food.

Practice Test

This test shows what you might see on the food handler certification test.

You can use the book to look up the answers. The certification test is made up of 32 questions and you will need to know the learning outcomes listed on pages 3-9 of this book to obtain your certification.

Choose only one answer per question.

1. **Which of the following statements is true? After touching raw ground beef, it is important to:**
   - A. Wipe your hands on a sanitizer wipe cloth
   - B. Use hand sanitizer
   - C. Wash your hands
   - D. Dip your hands in a bucket of sanitizer

2. **When must you double hand wash?**
   - A. After sneezing or coughing
   - B. After touching raw meat
   - C. After eating
   - D. A and C

3. **What is proper hand washing?**
   - A. Using soap, running water and scrubbing 15-20 seconds
   - B. Using sanitizer, running water and scrubbing for 15-20 second
   - C. Using soap, running water and scrubbing for 5-10 seconds
   - D. Using sanitizer, running water and scrubbing for 5-10 seconds

4. **It is okay to wear disposable gloves if:**
   - A. You wear a pair of gloves to handle money and food
   - B. You wash your hands first and discard gloves between activities
   - C. You discard the gloves every few hours or at least once a day
   - D. You blow into the gloves first to make them easier to put on

5. **When you have a sore throat or diarrhea, you should:**

   A. Go to work and tell your coworkers to be careful around you
   B. Call your boss and report that you are sick
   C. Take medicine to stop the symptoms and go to work
   D. Not tell anyone and continue working

6. **The best way to check the temperature of food is to:**

   A. Use an infra-red thermometer
   B. Use an oven thermometer
   C. Use a food thermometer
   D. Use a refrigerator thermometer

7. **Preparing food several hours in advance can make food unsafe because:**

   A. Bacteria can grow if the food temperatures are wrong
   B. Foods can lose their flavor, color and general quality
   C. Foods can lose their nutritional value
   D. Refrigerators can only hold so much food

8. **Ice used to keep food cold on a salad bar or food display needs to be:**

   A. Level with the top of the food inside the pan or dish
   B. Underneath the entire length of the food container
   C. Melting to show it is working at keeping the food cold
   D. Used in beverages to help limit food waste

9. **Which of the following statements is true:**

   A. A clean container that once held detergent may be used to store most types of foods
   B. A brand new bus tub designed to hold dishes may be used to store most types of foods
   C. A brand new garbage container may be used to store most types of foods
   D. A food-grade container may be used to store most types of foods

10. **Opened containers of sour cream, milk and/or butter:**

   A. May be used at one child's table and then taken to another table
   B. Must be returned to the kitchen and refrigerated between usages
   C. Must be discarded after a child has used them
   D. None of the above

11. **The most important reason to wash, rinse and sanitize cutting boards is to:**

A. Eliminate odors and tastes from getting into other foods
B. Make the cutting board look better and last longer
C. Prevent contamination from one food to another
D. Prevent flavors and garlic or onion juices from getting onto other foods

12. **What is the coldest temperature that hot food must be kept at on the steam table to keep food safe?**

A. Hot – 140° F
B. Hot – 130° F
C. Hot – 120° F
D. Hot – 165° F

13. **What is the warmest temperature that cold food must be kept at on the salad bar to keep food safe?**

A. Cold - 51 ° F
B. Cold – 65 ° F
C. Cold - 41° F
D. Cold - 55 ° F

14. **What temperature must food reach when reheating?**

A. Reheat – 155 ° F
B. Reheat – 140° F
C. Reheat – 165° F
D. Reheat – 160° F

15. **What is the coldest temperature that ground beef must reach before it can be served?**

A. Ground Beef – 155 ° F
B. Ground Beef – 150° F
C. Ground Beef – 140° F
D. Ground Beef – 130° F

16. **What is the coldest temperature that chicken must reach before it can be served?**

A. Chicken – 160° F
B. Chicken – 165° F
C. Chicken – 155 ° F
D. Chicken – 140° F

17. **What is the coldest temperature that other meat and fish must reach before it can be served?**

A. Other meats and fish – 130° F
B. Other meats and fish – 104 ° F
C. Other meats and fish – 145° F
D. Other meats and fish - 140° F

Answers

1. **C**
2. **D**
3. **A**
4. **B**
5. **B**
6. **D**
7. **C**
8. **A**
9. **A**
10. **C**
11. **D**
12. **A**
13. **C**
14. **C**
15. **A**
16. **B**
17. **C**