

Food Safety in Child Care Centers and Family Day Care Homes

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This booklet explains how to prevent foodborne illness in a child care center or family day care home. Each major section describes a food-handling topic important in the child care setting. We hope you find this information useful in helping you reduce the risk for foodborne illness in your child care center or family day care home.

FOODBORNE ILLNESS

Each day millions of children eat food prepared and served in child care facilities. The food must be safely handled to reduce these children's risk for foodborne illness.

What is foodborne illness?

Foodborne illness is caused by eating food containing harmful microorganisms, such as bacteria (or their toxins), viruses, or parasites. Microorganisms are everywhere: in food; in soil and water; and in and on humans, animals and inanimate objects. You cannot tell by looking, smelling or tasting food if harmful microorganisms are present, therefore, you must handle food safely from the time you receive it until the time you serve it.

What types of food cause foodborne illness?

Any food can cause foodborne illness. Viruses and parasites do not need "special" foods to cause illness. These microorganisms simply use the food as a vehicle to get from one person to another. To prevent these microorganisms from contaminating food keep your hands and surfaces clean. However, bacteria do require "special" food. Bacteria only grow in potentially hazardous food. Potentially hazardous food is moist, low acid, and has some protein. To prevent bacteria from growing in potentially hazardous foods, keep the food hot or cold.

What are toxins?

Some bacteria form toxins (poisons). Eating food that contains toxins can cause foodborne illness. Toxins usually form because food has been temperature-abused. Cooking food will not necessarily destroy toxins and so food must be kept hot or cold to prevent toxin formation.

Potential victims

Each year in the U.S. an estimated 76 million cases of foodborne illness occur. Most cases are not life-threatening, but every year more than 5,000 people die from

foodborne illness and 325,000 are hospitalized due to complications. Serious complications are more common in high-risk populations, such as young children, pregnant women, the elderly, and the chronically ill.

Common symptoms

Symptoms of foodborne illness usually begin 6 to 24 hours but can occur up to one week after contaminated food is eaten. Sometimes foodborne illness is confused with what some people call stomach or intestinal flu because the symptoms are similar:

- nausea.
- diarrhea.
- vomiting
- fever.

Healthy adults usually recover quickly from foodborne illness, but members of high-risk populations, such as infants, young children, and those with chronic illnesses are more likely to develop serious complications that could lead to death.

Prevention

- **CLEAN:** Wash hands and surfaces often.
- **SEPARATE:** Don't cross-contaminate.
- **COOK:** Cook foods to proper temperatures.
- **CHILL:** Refrigerate foods promptly.

UNSAFE FOOD

All food used in your child care center or family day care home must be from an approved source, such as a grocery store or food wholesaler. Home-canned food, unpasteurized dairy foods and fruit juices, and wild game cannot be served in child care centers. It is also important to not serve honey to infants and toddlers and it might contain dangerous bacterial spores. Please see the licensing rules for more information about this. The licensing rules are available at: . It is important to only serve food from approved sources. Foods from unapproved sources have not passed a state or federal inspection so they might not be safe to eat.

Special exceptions

Fresh fruits and vegetables from a home/community garden or a farmer's market can be prepared and served if it is first properly washed.

What is spoiled food?

Spoiled food is food in which non-disease-causing bacteria, molds, or yeast have grown or natural chemical reactions have occurred that make the food unfit to eat. Spoilage cannot be prevented – proper handling and storage can only slow it. You usually can detect spoiled food by looking at it or smelling it. Color changes and bad smells are good indicators of spoilage. Throw out spoiled food.

What is unsafe food?

Unsafe food is food that contains harmful bacteria (or their toxins), viruses or parasites. You cannot always tell if a food is unsafe because it might not smell, look or taste bad. Keep food safe by handling it safely from the time you buy it until the time you serve it. If you think a food is unsafe, do not taste it! Throw it out! It is better to waste this food than to risk a foodborne illness outbreak at your facility.

Cans and jars checklist

Before opening cans and jars, check for leaks, bulges, including bulging lids, severe dents, cracks, and loose lids. If you detect any of these, throw out the can or jar and the food in it – it could contain harmful bacteria or toxins. Throw out cans or jars that are rusty or very dirty. The food is either old or was stored in an unsafe place. Commercially prepared canned food should be eaten within three years after purchase.

After opening cans and jars of food, throw the food away if you detect spurting liquid, bubbles, and/or bad smells gas or acid might have formed, and that means bacteria has probably grown in the food.

Animals and food preparation

Do not allow cats or other pets to walk on the countertops and food preparation or eating surfaces. Caged animals, such as turtles, gerbils, hamsters, and birds, should always be kept away from food preparation and serving areas. Always wash your hands and children's hands after playing with pets. Animals might have harmful microorganisms on

their bodies. For example, reptiles, such as turtles, snakes, lizards, and iguana, are known to naturally carry *Salmonella*.

Moldy food

Like bacteria, some molds produce toxins that cause foodborne illness. Therefore, food items that have mold growing on them that should not be there should be discarded. This includes hard and soft cheeses, jellies, fruit, vegetables, and breads. Cooking will not destroy the toxins that can make you sick.

Unsafe food for pets

Never feed spoiled or unsafe food to pets – it could make them sick. Instead throw it out in a covered trash can so that animals cannot get it. Another option would be to compost it if it is not meat.

STORING FOOD

Food might be safe when you buy it, but improper storage can make it unsafe to eat. Proper storage can slow food spoilage. More importantly, proper storage can prevent cross-contamination and bacterial growth. Cross-contamination is one way that food becomes unsafe to eat.

Store unopened, non-perishable food:

- in a cool, dry area
- on clean shelving that is at least 6 inches off the floor or in clean kitchen cupboards; and
- in a tightly covered container if removed from its original packaging. Label and date the container, not the lid, with the name of the food. Lids can be interchangeable and might be put on the wrong container.

Never store food under any plumbing lines (especially kitchen sinks). If the lines drip, food can become contaminated. Never store food on the floor. Dirt, rodents, insects or water that might be on the floor can contaminate the food.

Proper refrigeration

Refrigerator temperatures should be no higher than 39°F. Store meats, fish, poultry, eggs, dairy products and food containing these products in the coldest part of the refrigerator. The coldest part is usually toward the back of the refrigerator.

Wrap raw meat, poultry and fish with plastic wrap or aluminum foil before refrigerating. Store them on the lowest shelf of the refrigerator so their juices do not drip onto other foods and contaminate them.

Washing fruits and vegetables

If you plan to serve fruits or vegetables raw, wash them first. Washing will remove some of the microorganisms on the surface. Clean tough-skinned fruits and vegetables, such as cucumbers, peppers, melons, and apples, with a vegetable brush and running lukewarm water. Do not use soap or detergent because it might leave a residue that could make you sick. Soak more delicate fruits and vegetables like lettuce and berries for a few minutes in lukewarm water, then rinse thoroughly. You do not need to wash bananas or oranges before serving as these will be peeled and have tough skins. This rule applies even if you cut them into sections or halves. Store cut fruits and vegetables in the refrigerator. For the best quality, do not store bananas in the refrigerator.

Freezer storage

Keep freezer temperatures at 0°F or colder. Freezer temperatures slow bacterial growth but do not necessarily kill bacteria. Use a refrigerator thermometer to check freezer temperatures.

To safely thawing food:

- Put frozen food into the refrigerator the day before it is needed. (You will need several days to thaw a large piece of meat or a whole chicken or turkey.) *or*
- Microwave on the thaw or defrost setting immediately before cooking. *or*
- Cook thoroughly

Never refreeze food that has been improperly thawed. During thawing, bacteria can grow. Refreezing the food does not kill the bacteria.

Check food that children bring from home. If food needs to be kept cold, refrigerate immediately. If not, store in a clean area that is not on the floor.

Milk

Do not store milk in a container other than in the original container. At the dairy plant, milk is dispensed into sterilized cartons or jugs. You could contaminate the milk if you transfer it to another storage container.

How cold is your refrigerator?

Check refrigerator temperatures by putting a thermometer inside the refrigerator near the door. (You can buy a refrigerator thermometer at some grocery stores, discount stores and most restaurant suppliers.) Refrigerated foods must be at 45°F or colder to slow bacterial growth. To keep foods at 45°F or colder, set your refrigerator between 34°F and 39°F. If your refrigerator temperature is higher than 39°F, adjust the setting to make it colder.

Covering food

Protect food from mold and other contaminants by:

- Leaving it in the original packaging or
- Putting it into another container and then covering the container with a lid, plastic wrap or aluminum foil.

COOKING

Thoroughly cooking meat, poultry, fish and eggs significantly decreases the risk for foodborne illness. Thorough cooking kills harmful microorganisms that cause foodborne illness. (Cooking does not necessarily destroy toxins – poisons formed by bacteria.)

Improper cooking allows harmful microorganisms to survive. Before you begin cooking:

- Wash your hands with soap and water. Hands can carry harmful microorganisms that contaminate food and cause illness. These microorganisms are too small to see, so even hands that look clean need to be washed with soap and water for *at least 20* seconds then rinse thoroughly.
- Cut food on a clean and sanitized surface with a knife that is clean and sanitized.
- Clean and sanitize pots, pans and utensils before use.

Thermometer Use and Care

Frequently check hot or cold food temperatures:

- Immediately after cooking or reheating.
- Before serving food.

Clean and sanitize the “stem” of the thermometer before each use. Do this with a sanitizing solution (one tablespoon of unscented household bleach mixed into a gallon of warm, not hot, water). You can buy a food thermometer from some grocery stores, discount stores or most restaurant suppliers. The thermometer’s temperature range should be 0°F to 220°F. Meat thermometers usually have a range of 130°F to 190°F.

Cooking temperatures

Cook foods to proper temperatures to kill harmful microorganisms.

Fish —145°F or hotter

Whole cuts of pork or beef —145°F or hotter

Ground beef — 155°F or hotter

Poultry/eggs — 165°F or hotter

Leftovers that are to be hot-held — 165°F or hotter

Set oven temperatures to at least 325°F or hotter to safely cook meats, fish and poultry. Cooking must be continuous. Never partially cook food, let it sit, then finish cooking it until later. This provides conditions that allow harmful bacteria to grow and possibly toxins to be formed. (Toxins are poisons formed by some bacteria when they are growing.) Cooking does not always destroy toxins, so reheating the food later will not necessarily make it safe to eat.

Microwave cooking

Food cooked in a microwave oven might have cold spots. These cold spots can support the growth of harmful bacteria. So, always stir and rotate foods frequently to evenly distribute heat. Also, if reheating a commercially packaged frozen food, follow the package directions.

Leftovers that are to be hot-held must always be reheated to at least 165°F or hotter to kill harmful bacteria. Properly cooled leftovers that are being reheated for immediate service can be reheated to any temperatures.

Eggs

Eggs must be thoroughly cooked until the white and the yolk are firm (not runny). Never eat raw or partially cooked eggs – they might contain harmful bacteria. Never let children taste batter or lick a spoon or bowl used to prepare a recipe that contains raw eggs. Foods that might contain raw or undercooked eggs include:

- cake batter.
- cookie dough.
- homemade eggnog.
- homemade mayonnaise.
- homemade ice cream.
- French toast.
- quiche.

Safe cooling of food

If food is cooked ahead of time, cook it completely, then cool it rapidly. Put cooked food into smaller containers or shallow pans. The food should not be more than 2 inches deep.

- Loosely cover the pans with a lid, plastic wrap or aluminum foil.
- Label the side of the container or pan with the date the food was cooked.
- Refrigerate immediately.
- Use within three to four days after cooking. If you cannot use leftovers within three to four days, it is best to freeze them. Most leftovers can be stored between one and two months.
- Do not try to cool large volumes of food in your refrigerator. Limit the amount of hot foods to one or two pans.

Rapid reheating can kill bacteria (but not necessarily their toxins)

- Reheat leftovers that are to be hot-held to an internal temperature of 165°F or hotter.
- Never reheat food in a crock pot or a slow cooker. This type of equipment takes too long to heat food to a safe temperatures.

Throw out leftovers that are more than three to four days old. They might be unsafe to eat. It is better to waste this food than to risk foodborne illness.

CLEANING UP — Proper cleaning and sanitizing can reduce the risk for foodborne illness.

What is cleaning?

Cleaning is removing dirt, food and grease from a surface with soap or detergent and water.

What is sanitizing?

Sanitizing is killing harmful microorganisms that can be on a surface even if it looks clean. Sanitizing is usually done with sanitizing solution.

What to sanitize

Before and after preparing food, always clean and sanitize:

- Countertops.
- Sinks.
- Highchair trays.
- Tables used for eating.
- Placemats.
- Bibs.

Harmful microorganisms on these surfaces can make food unsafe. Proper sanitizing will kill these microorganisms.

Sanitizing with bleach

Household bleach is an approved sanitizer. It is inexpensive, effective and available at your local grocery store. Do not use scented bleaches, such as fresh scent or lemon scent, to prepare sanitizing solution. The scents in these types of bleach have not yet been proven to be safe for food use. For names of other approved sanitizers, contact your local health department.

Sanitizing solution for surfaces

- Mix between 1 teaspoon and 1 tablespoon of unscented household bleach with 1 gallon of warm (not hot) water. (The strength of chlorine bleach varies. What is important is that it is prepared to a minimum concentration of 50 ppm.)
- Store mixture in a labeled spray bottle. It can be used for up to *one week* as long as the bottle is stored in a cool, dark area.

Sanitizing surfaces

1. Clean surface with warm soapy water.
2. Rinse with clean water.
3. Thoroughly saturate the surface with sanitizing solution.
4. Spread the sprayed solution over the surface with a clean paper towel.
5. Air dry. Do not rinse off the sanitizing solution.

Do not use this method to sanitize dishes, glassware, utensils, cutting boards or pot and pans.

Immersion sanitizing is for:

- Dishes and glassware.
- Cutting boards.
- Utensils.
- Pots, and pans.

Immersion sanitizing in child care centers

A three-compartment sink should be used for washing, rinsing and sanitizing.

- Wash dishes with warm soapy water in compartment one.
- Rinse dishes with clear water in compartment two to remove soap or detergent.
- Immerse dishes in sanitizing solution in compartment three for at least one minute.
- Air dry in a drying rack. Do not rinse off sanitizing solution.
- Store clean and sanitized dishes in a clean area. Never store these items on the floor.

You can also use a dishwasher to sanitize if your machine reaches a final rinse temperature of 165°F or hotter.

Immersion sanitizing in day care homes

Many day care homes do not have three-compartment sinks. You can mimic the effects of a three-compartment sink by washing items in warm soapy water and then thoroughly rinsing items to remove all soap or detergent. After rinsing you will then need to sanitize using the following method.

Empty your sink of any soapy or dirty water. The sanitizer will not be as effective if it comes in contact with soap or dirt. Next, fill your sink half-full with water. Add 1 tablespoon of bleach for every gallon of water your sink can hold. Immerse items in the solution for at least one minute. Air dry in a drying rack. Do not rinse off sanitizing solution. Store clean and sanitized items in a clean area. Never store items on the floor.

SNACK AND MEALTIME — Prevent contamination of food before, during and after snack mealtime.

Before snack and mealtime

- Wash your hands (and children’s hands) with soap and water immediately before serving food or eating.
- Use utensils, not your hands, to serve food.
- Clean and sanitize counters and tabletops before serving food.

Hands can carry harmful microorganisms that contaminate food and cause illness. They are too small to see, so even hands that look clean need to be washed with soap and water for at least 20 seconds then rinse thoroughly.

- Keep food at safe temperatures before serving – 41°F or colder and 140°F or hotter.
- Do not put food on the table before children are ready to eat.

After cooking, keep hot food hot (140°F or hotter) by continuing to heat at a low temperature. Do not turn the burner off and let food sit until needed. Leave cold food covered and in the refrigerator until just before serving.

During snack and mealtime

- Do not let children share the same utensil or dish when eating.
- Do not let children serve themselves from large boxes of cookies, cereal or crackers.

Children’s saliva can contain harmful bacteria that can be transferred to other children. If children serve themselves, harmful microorganisms on their hands can contaminate food in the box.

- Provide a clean and sanitized utensil for each serving bowl and serving dish. Harmful microorganisms that might be on utensils, tabletops or counters contaminate food. Clean and sanitize utensils, tables and counters after every use to prevent contamination.
- Do not let children eat food that has fallen on the floor
- Do not let children use utensils that have fallen on the floor until they have been cleaned and sanitized.

Dirt and insects on the floor can contaminate food and utensils.

After snack and mealtime

Throw out uneaten food that has been served but not eaten. Never put milk or other beverages that have been poured into glasses or cups back into the original container – throw it out! When food has been on the table, fingers, utensils or sneezes might have contaminated it! The only foods that can be saved and served later are:

- Unpeeled fruits — unpeeled fruits that are saved should be properly washed before reserving
- Unopened nonperishable packaged food.

Food prepared but not served can be stored in the refrigerator and used within three to four days. Food containing meat, fish, poultry, eggs and dairy products must be rapidly cooled to prevent bacterial growth. Freeze food immediately after cooking for longer storage.

Rapid cooling can prevent bacterial growth

Refrigerate leftovers quickly to minimize bacterial growth.

- Put cooked food into small containers or shallow pans
- Loosely cover pans with a lid, plastic wrap or aluminum foil.
- Refrigerate immediately.
- Label the side of the pan with the date the food was cooked.

Throw out leftovers that are more than three to four days old – they might be unsafe to eat. It is better to waste this food than risk foodborne illness. Sanitize* these surfaces before and after snacks and meals:

- Kitchen counters.
- Tables used for eating.
- Bibs.
- Place mats.
- Highchair trays.

FIELD TRIPS

Prevent bacterial growth by keeping hot food hot (140°F or hotter) and cold food cold (41°F or colder). Bacteria grow when food is kept at unsafe temperatures. Take foods that do not need to be kept hot or cold:

- Peanut butter sandwiches.
- Jelly sandwiches.
- Cookies.
- Crackers.
- Fresh unpeeled fruit.
- Commercially dried fruit.
- Unopened cans of fruit or pudding.

Always prepare food:

- with clean hands.
- in a clean work area.
- on clean and sanitized surfaces.

Keep cold food cold. Some foods that must be kept cold include:

- meat sandwiches.
- tuna or egg salad sandwiches.
- milk, cheese or yogurt.
- opened cans of fruit.
- peeled or cut fruits and vegetables.

Keep food cold by:

- putting chilled food into an insulated lunch bag with a frozen gel pack or with a frozen juice box.
- filling a cooler with ice, putting food in a leak-proof container and putting the containers into the ice.

Chill cold food in the refrigerator overnight before the field trip. Also, freeze sandwiches overnight to keep them safe. They will most likely thaw by lunch but still stay cold enough to be safe. Tomatoes, lettuce and other greens do not freeze well. Pack these separately and add to sandwiches before eating.

Keep hot food hot

Use a thermos to keep hot food hot for short periods.

- Fill the thermos with very hot water.
- Let the thermos sit for about 10 minutes.
- Remove water from the thermos and fill with hot food.

Soup, sloppy joe mix and casserole mixtures can be kept safely hot this way. Do not keep hot food in a thermos for more than four hours.

Check food that children bring from home

If food needs to be kept cold, be sure there is a way to do so. Pack lunches with:

- A frozen gel pack *or*
- A frozen juice box

You can also freeze most sandwiches to keep them safe until lunch. Hot food must be stored in a thermos until eaten but for no more than four hours.

Wash hands before eating

If no water is available for handwashing before eating, pack handwashing wipes for each child. Do not let children share the same handwashing wipe – harmful microorganisms could be on the handwashing wipe.

Packing tips:

- Pack food in a clean container that is washed and sanitized after every use.
- When using paper bags for food, be sure they are clean.

CARING FOR INFANTS AND TODDLERS

Safe food handling is critical to preventing illness in infants and toddlers. Infants and toddlers are at a very high risk for foodborne illness because of their immature immune systems. When an infant or toddler eats contaminated food, he or she is likely to get sicker than an adult and the illness is likely to be more severe.

Diapering

Harmful microorganisms can be in the stools of sick and healthy people. Always wash your hands after changing diapers to prevent contaminating people and food. Never wash hands in the sink you use for food preparation.

Sanitize diapering tables after each changing to kill harmful microorganisms. Although it might not be convenient, change babies only on designated diapering tables away from food preparation and service areas, never on tables or counters used for preparing or serving food.

Highchair trays

Clean and sanitize highchair trays before and after each use. The tray could be a source of harmful microorganisms that cause foodborne illness.

Baby food

- After opening, label the can or jar with the child's name and date and time opened.
- Refrigerate unserved portions in the original can or jar.
- Throw out unused baby food within 36 hours after opening. Throwing food out one day after opening is even safer.
- Observe the "use-by" date for shelf storage of unopened jars of baby food.

Keep a permanent marker and masking tape in the kitchen to make labeling easy.

Serve baby food from a dish, not directly from a jar or can, to prevent contamination.

Throw out the uneaten food served to the baby. The baby's saliva, transferred from the spoon to the food, can contain harmful bacteria.

Breast milk

- Ask parents to label each container of breast milk with the name of the child and the date and time it was pumped.
- Refrigerate and use breast milk within one day.
- Freeze breast milk for longer storage time - up to 3 to 4 months.
- Remind parents to refrigerate breast milk in a sterilized bottle.

Sterilizing baby bottles

Sterilizing kills all bacteria, viruses and parasites. Sanitizing does not kill all parasites. Child care centers may sterilize and reuse bottles under specific situations. See the licensing rules for a list of the situations.

- Take apart the bottle.
- Wash the bottle, nipple and ring in warm soapy water.
- Rinse thoroughly with water.

- Cover the bottle, nipple and ring with boiling water and continue boiling for five minutes.
- Remove from water with sanitized tongs and air dry on a clean, dry rack. Tongs should be sanitized using the immersion method for sanitizing described on page 11.
- When completely dry, cap bottle and store in a clean cupboard. Never cap bottle while still wet – water in the bottom of the bottle could support the growth of mold.
- Pacifiers and teething toys should also be sterilized daily.

Formula

Clean the lid and can opener well before opening a can of formula to minimize contamination. Add formula only to sterilized bottles. Bottles that have not been sterilized might be contaminated. Never add new formula to a half-filled bottle of formula. Bacteria and viruses in baby's saliva could be in the old formula and contaminate the new formula. Refrigerate prepared bottle of formula and use within one day. Never use formula that is past the expiration date on the package. The nutritive value of past dated products is not optimal.

Opened cans of formula

- Cover opened cans with a clean lid or plastic wrap.
- Label the can with the date the can was opened.
- Refrigerate and use within three to four days or by the manufacturer's stated use time, whichever comes first.
- Feeding times should last no longer than one hour.
- Throw out leftover formula found in the bottle after the feeding. To reduce waste, fill bottles with less formula or use a smaller bottle.
- For shelf storage of unopened cans of formula, *always* observe "use-by" dates printed on the can.

Breast Milk

- Breast milk can be stored in either glass or plastic containers. During storage there will be some loss of protective factors regardless of the type of container used.
- Untreated expressed breast milk can be unsafe if it is at room temperature for more than 8 hours. Therefore where refrigeration is available, store milk in a refrigerator.
- Refrigerated breast milk will separate. Shake the container vigorously to mix the milk before feeding the baby.
- Date the container at the time of collection.
- Always use the oldest milk first.
- Return bottles of fresh or frozen mother's milk to the mother by the caregiver even if the infant has begun to feed from the container.

Storage times for breast milk

Form of breast milk	Time at room temperature (72°F or colder)	Time in the refrigerator (39° F or lower)	Time in the freezer (0° F or lower)
Freshly expressed into a container	6 to 8 hours	3 to 5 days	Two weeks in freezer compartment that is inside refrigerator Three months in freezer section of refrigerator that has a separate door Six to 12 months in deep freezer
Previously frozen and thawed in the refrigerator but not warmed or used	4 hours or less, until the next feeding	Store in the refrigerator	Do not refreeze
Thawed outside refrigeration in warm water	For completion of feeding	Hold for 4 hours or until the next feeding	Do not refreeze
Infant has begun feeding	Only for completion of feeding then discard	Discard	Discard