



# ARKANSAS HEALTHY CHILDREN HANDBOOK

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## Chapter 7 **Preparing, Handling and Storing Food**

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**ARKANSAS DEPARTMENT OF  
HUMAN SERVICES**



Division of Child Care and Early Childhood Education



## Chapter 7 Preparing, Handling and Storing Food

Preparing, handling and storing food deserves special attention because germs may be spread during these activities. Germs, such as bacteria and viruses, grow quickly in some foods. Food-borne illnesses can cause diarrhea, vomiting, fever and stomach pain. Food that is not properly cooked, cooled or stored can be a perfect place for germs to grow.

### WHAT SHOULD I DO WHEN PURCHASING FOOD?

- Make sure food suppliers meet local, state and federal health codes.
- Purchase only meats and poultry that have passed federal inspection.
- Purchase only milk and milk products that are pasteurized.
- Examine all food when it is delivered.
- Make sure that the canned goods are not rusted, leaky or swollen. If they are, throw them away.
- If canned goods are dented at the can's rims or seam, do not use.
- Do not use home-canned goods.

### WHAT SHOULD I DO BEFORE PREPARING FOOD?

- Wash hands before, during and after food preparation (and children's hands, if they are helping).
- Cover cuts and burns.
- Do not let people with infected cuts or sores, colds, or other communicable diseases prepare or serve the food.
- Wash the tops of canned goods before opening.
- Wash all raw fruits and vegetables thoroughly before using.
- Thaw frozen foods in the refrigerator or microwave, or run water over them.
- Thaw foods as part of the cooking process; allow extra cooking time.
- Never let food thaw at room temperature.
- Wash all work surfaces with soap, water and a mild disinfectant before and after preparing foods.
- Scrub cutting boards with hot water and detergent, and disinfect with a bleach solution of one tablespoon bleach per gallon of water.



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- It is good to have two cutting boards: one for raw poultry and meats, and one for cooked foods and raw vegetables or fruits.
- When cutting boards develop deep cuts that cannot be cleaned and disinfected, they need to be replaced.
- Plastic cutting boards are preferred.
- If children are going on an outing and taking their lunches, choose foods that do not spoil or take an ice chest to keep the food cool and safe.
- **Remember**, foods should be kept hot or cold and spend as little time as possible at room temperature.

**NOTE: Two-hour Rule: Do not leave food at room temperature for more than two hours. If in doubt, throw it out!**

### WHAT SHOULD I DO WHILE PREPARING FOOD?

- When cooking meat, make sure it is cooked all the way through; the internal temperature should be:
  - » Stuffing and poultry – minimum 165°F (Do not cook stuffing in poultry.)
  - » Pork – minimum 150°F.
  - » **Special Note:** Ground beef or anything containing ground beef should be cooked to an internal temperature of 155°F or until all of the pink color is gone and juices run clear.
- Never use the same spoon for tasting and cooking. Each time food is tasted while cooking, change utensils.
- Wash hands, utensils and work surfaces after touching raw meat, poultry or eggs.
- Cover your mouth when coughing or sneezing; wash your hands immediately afterward.

### WHAT SHOULD I DO AFTER PREPARING FOOD?

- Foods must be held at safe temperatures:
  - » Cold foods – 40°F or below.
  - » Hot foods – 140°F or above.
  - » Foods held at these temperatures may be reused if heated to 165°F.
- Do not serve food again; the only exceptions are raw fruits that can be washed and packaged foods.
- Provide a serving utensil for each bowl.

- Thoroughly clean all dishes, utensils and work surfaces with soap and water and a mild disinfectant after each use.
- For child care family homes, it is recommended that leftovers be used within 24 hours of original preparation.

### **HOW DO I STORE FOOD AND NONFOOD ITEMS SAFELY?**

- Rotate older cans of food to the front and use them first.
- Store food items separately from nonfood items.
- Put leftover food in the refrigerator; allow for circulation. Store leftovers in well-covered containers above the fresh foods.
- Store raw products lower than other foods, since they have a higher capacity for growth of bacteria.
- Immediately freeze leftovers or use within 24 hours; otherwise, throw away.
- Store unrefrigerated foods in metal, glass or plastic containers.
- Store dry items in an area that is about 50°F to 70°F and moisture free.
- Containers of food should be stored at least 6 inches above the floor.
- Do not store food under the sink.
- Do not store food in cupboards next to the stove; the heat dries up food and encourages insect infestation.
- Do not use pest strips around food areas.
- Store all perishable foods at temperatures that prevent spoilage.
- Refrigerator: 40°F or below.
- Freezer: 0°F or below.
- Check thermometers daily.
- Clean refrigerator with soda or bleach solution weekly.
- Defrost refrigerator before the ice is  $\frac{1}{4}$ -inch thick.
- Wash tables with a mild disinfectant before and after every meal.
- Wash food preparation surfaces between preparations of different items.
- Thoroughly sanitize cutting board before and after cutting any meat, poultry or fish.

### FOR CENTERS ONLY:

#### WHAT SHOULD KITCHEN PERSONNEL DO TO ENSURE FOOD SAFETY?

- Persons preparing food should meet health standards.
- Hairnets should be worn in the kitchen.
- Highly flammable clothing should not be worn while cooking (nylon, tricots and light synthetics).
- Smoking, gum chewing and personal drinks/food should not be allowed in the kitchen.
- Hands should be washed before touching food, between different foods and after using the bathroom, coughing and sneezing.
- No one ill with a bacterial or viral infection should handle food.
- No one with an open or infected injury should work in food preparation unless the injuries are covered with nonporous materials (e.g., latex gloves).

#### FOODS REQUIRING SPECIAL CARE

##### HONEY

Honey should never be given to infants under 1 year of age. It can lead to a very serious disease, infant botulism, which can even be fatal. Avoid honey in any form during the baby's first year. Honey is all right for children over the age of 1 and for adults.

#### FOODS THAT MAY CAUSE CHOKING

Don't offer these foods to children under 3 years old **unless you have modified them** to reduce the risk of choking.

hot dogs*	grapes*	raisins	nuts
hard candy	seeds	pickles*	corn
thick, sticky cheese food	popcorn	peanut butter	olives

raw vegetables and fruit, including carrots and celery)

*\* If foods such as hot dogs, whole pickles, grapes, etc., are served, cut lengthwise or quarter. Always supervise children while they eat and insist they sit while eating.*

## **FOOD SAFETY ISSUES FOR INFANTS**

### **BABY FOODS**

Baby food in jars can easily spoil and cause illness. When feeding an infant, put the baby food from the jar in a separate bowl or cup. Using a clean spoon, place the amount of food you think the baby will eat into a cup or bowl. Do not directly feed from the jar. If the infant wants more food, always first serve from the jar to the bowl with a clean spoon. Germs from the mouth, if introduced into a jar of food, can cause spoilage. If the infant does not eat the entire serving from the bowl, it should be thrown away, never placed back in the jar.

### **BREAST MILK**

More women are now breast-feeding their babies. The working mother who is breast-feeding may send her infant to child care with bottles of breast milk. Breast milk is obtained by the mother pumping her breasts and putting the milk into a bottle. Breast milk is an excellent source of nourishment for infants. Like formula, it is important to store breast milk carefully so it does not spoil. The following are guidelines for storing breast milk:

- Wash your hands before handling.
- Label bottles of breast milk brought to the center with the child's name, date and time the breast milk was collected.
- Use refrigerated breast milk that has not been frozen within five days after collection.
- Use frozen breast milk that has been thawed within 24 hours.
- Thaw frozen breast milk under cold running water.
- Offer only the amount you think the baby will eat because leftover breast milk cannot be stored and reused.
- Throw away all unused milk after each feeding.
- Use bottles of breast milk only for the baby for whom they are intended.
- Wash skin on which breast milk has spilled with soap and water immediately.



**Breast milk may appear thinner, paler or even bluish in color compared to formula. This is normal. If it has been stored properly, it is completely safe and very nutritious for the infant.**

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### FORMULA

- It is important to the infant's health that formula be prepared correctly and stored safely. Procedures concerning formula preparation and storage are written to prevent problems that may be caused by:
  - » Adding too much or too little water.
  - » Not sterilizing the water used to mix with concentrated or powdered formula by bringing cold water to a very bubbly boil, boiling it for 1-2 minutes and then allowing it to cool.
  - » Using tap water without boiling; collect only cold tap water for boiling by letting the cold tap run for two minutes and then collecting the water.
  - » Formula spoiling or not being prepared in a way to keep germs from growing. Spoiled formula can make infants very sick. Germs can get into formula bottles from:
    - The hands, nose or throat of the person preparing the bottle
    - The counter or work area
    - A bottle that was not well cleaned
    - Unclean water used to make formula
    - Formula stored too long
    - A bottle left at room temperature
    - Baby sucking on bottle; saliva enters bottle
- It is important to be very careful about cleanliness when preparing infant formula –
  - » Before preparation, carefully wash hands.
  - » Make sure the kitchen or formula preparation area is very clean.
  - » Thoroughly wash and rinse all equipment to be used, including the cans containing the milk, the bottles and nipples.
  - » If bottles and nipples are to be reused by the facility, they must be sanitized.
  - » Bottles can be sanitized in a commercial dishwasher or by boiling for five minutes.

**NOTE: A dishwasher (if not a commercial type) most likely does not sanitize bottles.**

- There are health and liability risks when reusing formula. These risks can pose serious health complications. Any formula remaining after feeding should be discarded. Throw out any unused formula or breast milk left in a bottle after feeding. Rinse the bottle in cool water to remove formula.
- To prevent illness from shared bottles or mistakes in giving incorrect formula, label each child's bottles and formula with the child's name and the date the formula was prepared.
- Refrigerate the bottles as soon as they arrive and discard formula after 12 hours.
- Do not use a bottle if it has been out of the refrigerator longer than one hour.

### HEATING FORMULA

- We recommend that you **do not use the microwave oven to warm baby bottles** of formula or breast milk.
  - » The primary danger is overheating the liquid, although the bottle itself may remain cool to the touch.
  - » Drinking the hot liquid may burn the baby's mouth or throat.
  - » In addition, the hot liquid forms steam that builds up in the bottle, which may cause the bottle to explode.
- Overheating formula or breast milk may also destroy vitamins. To be on the safe side, heat an infant's milk or food by one of the following methods:
  - » Gently shake the bottle while holding it under running tap water for a few minutes, just long enough to take the chill off.
  - » Set the filled bottle in a bowl of hot, not boiling, water for a few minutes. Crockpots may be used for this purpose and are useful to warm several bottles at once.
- Shake the bottle gently to distribute the warmth evenly. Then shake a few drops from the bottle onto your wrist. If the temperature feels all right to you, it is safe for the infant.
- Warming the bottle this way may take a few minutes longer than using a microwave oven, but it's worth it for the child's safety.

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### GENERAL FOOD SAFETY TIPS

The best way to prevent germ growth in food is to either keep it hot, 140°F or above, or keep it cold, 40°F or below. The longer the food stays at room temperature, the more likely germs will grow.

#### Here are some practical tips to keep food safe:

- Place cooked food promptly into the refrigerator. First transfer hot foods into shallow pans or containers, no deeper than 3 inches, so they will cool more quickly. Then place immediately into refrigerator. Refrigerated food must be kept covered to keep particles from falling into it. You may cover hot food after it is cool.
- In the refrigerator, store raw foods on a lower shelf below cooked or ready to eat foods. This will reduce the chance that raw foods could spill and contaminate the ready to eat food.
- Use one of these methods to defrost foods safely:
  - » Place frozen food in the refrigerator to thaw; be sure to place it in the refrigerator well in advance of the time you will need it.
  - » Thaw food under cold running water.
  - » Thaw food as part of the cooking process; be sure to allow longer cooking time.
  - » Thaw food using the defrost setting of a microwave oven.
  - » **NEVER** let food thaw by sitting out at room temperature.
- Keep meat, fish and poultry, milk and egg products refrigerated until immediately before use because they can easily cause food-borne illness.
- Store food in refrigerators and freezers set at safe air temperatures.
- Use a thermometer to check the temperature:
  - » Refrigerator: 32°F - 40° F.
  - » Freezer: Lower than 0°F.
- If children are going on an outing and taking their lunches, choose foods that do not spoil or take an ice chest to keep the food cool and safe.

**REMEMBER: Foods should be kept hot or cold and spend as little time as possible at room temperature.**

- Care and cleanliness should be stressed in all areas of the center where children eat:
  - » Never place food and utensils (cups, plates, bowls, bottles) on the floor, in the diaper-changing area or in the same sink where hands are washed after diapering or toileting.

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- » These are particularly dirty areas where germs can more easily enter and spoil the food.
- Wash, rinse and disinfect tableware and kitchen utensils in the following way:
  - » Wash in the dishwasher, or
  - » Wash with detergent and hot water.
    - 1) Rinse with hot water.
    - 2) Disinfect with a cool bleach solution of 1 tablespoon of bleach per gallon of water.

**(Note: This solution is weaker than the one used for disinfecting toys and changing areas.)**
    - 3) Air-dry.

***NOTE: Child care centers licensed by the Division of Child Care and Early Childhood Education at the Arkansas Department of Human Services and holding an Arkansas Department of Health Day Care Food Service Permit are required to have a three-compartment utensil washing sink. (If a dishwasher is used, it must comply with Chapter 4 of the Health Department regulations.)***

- If you cannot wash and disinfect the tableware and utensils then use disposable paper plates, cups, etc., to prepare and serve food. Throw them away after using. (Avoid non-biodegradable foam-type products.)
- Scrub cutting boards with hot water and detergent, and disinfect whenever they are used to cut up raw meat, poultry or fish.
  - » Disinfect with a bleach solution of 1 tablespoon bleach per gallon of water.
  - » Do not cut up vegetables, fruits or cooked foods on the same cutting board that has just been used to cut up raw chicken, fish or meat until the cutting board has been washed and disinfected.
  - » It is a good idea to have two cutting boards: one for raw poultry and meats, and one for cooked foods and raw vegetables or fruits.
  - » When cutting boards develop deep cuts that cannot be cleaned and disinfected, they need to be replaced.

Also see the *Sequence of Infant Development and Feeding Skills in Normal, Healthy Full-Term Infants*. Source: [teamnutrition.usda.gov/Resources/feedinginfants-ch2.pdf](https://teamnutrition.usda.gov/Resources/feedinginfants-ch2.pdf)