

‘Crib Sheet’: Keeping Young Children Safe from Food Poisoning

Anyone can get food poisoning, but babies and toddlers are at especially high risk and once they become infected, young children can have a hard time getting well. Serious complications may develop, resulting in hospitalizations, lifelong health problems, and even death.

This guide from the Partnership for Food Safety Education has tips for parents, grandparents, and baby sitters on ways to reduce the risk of food poisoning in households with small children.

Clean Hands: Soap and Water or Sanitizer?

“Clean hands save lives,” according to the Centers for Disease Control and Prevention, but what should you choose for getting kids’ hands clean: handwashing or hand sanitizers?

When done properly, washing hands with warm water and soap is more effective than sanitizers in reducing the number of bacteria and viruses on hands.

Take time to help young children wash hands properly:



- Wet the child’s hands under clean, running water.
- Apply soap.
- The child should rub his or her hands together; you should help if the child is very young. Don’t forget to lather the wrists, up the arms, and in between fingers.
- Lathering should last 20 seconds – about the time it takes to sing the “Happy Birthday” song – twice.
- Rinse hands and then dry thoroughly with a single use paper towel. Use the towel to turn off the faucets.

When soap and water aren’t available, sanitizers that contain at least 60 percent alcohol can be a good choice. But, for sanitizers to work, they have to air dry on the hands instead of being dried off with a towel.

Young children should only use sanitizers with adult supervision, so they won’t get sanitizer in their eyes – or drink it which can be poisonous.



Cleaning and Sanitizing Surfaces and Toys

Dangerous germs – like *hepatitis A* virus and *rotavirus* – can live on surfaces for several weeks. If someone touches those surfaces, germs can get on the person’s hands and then be transferred into the mouth, to other people, or to food. That’s why it’s so important to clean and sanitize frequently-touched surfaces.



- Clean the surface with hot water and soap and thoroughly rinse. Apply the sanitizing solution and allow to air dry. Use this method also to clean and sanitize high chair trays, sinks, kitchen counters, and large plastic or rubber toys.
- Wash cutting boards, dishes, utensils, and counter tops with hot water and soap after preparing each food item and before you go on to the next food.
- Wash high chair trays with hot water and soap after every use and dry thoroughly with a single use paper towel.
- Cutting boards, dishes, utensils, and small plastic toys can also be run through a dishwasher at 170 °F to disinfect them.

Cleaning and sanitizing aren’t the same.

Cleaning – which is removing dirt and debris – comes before sanitizing. A sanitizing solution is then used to kill germs. Here’s a “recipe” for a safe and effective sanitizing solution: combine 1 tablespoon liquid chlorine bleach with 1 gallon of water in a clean bucket.



Handling and Storage of Breast Milk and Prepared Formula

Milk is susceptible to bacterial contamination, if it is not handled and stored properly.

Breast milk and prepared formula must be refrigerated at 40 °F or below. Use an appliance thermometer to be sure your refrigerator is cold enough.

Cleaning Bottles

- Sterilizing bottles in boiling water before first use is recommended. After that, bottles can usually be safely washed and dried in a properly functioning dishwasher.
- Before preparing a bottle, wash your hands, arms, and under your nails with soap and water for at least 20 seconds. Rinse thoroughly and dry hands with a clean cloth or single use paper towel.
- Clean and sanitize the kitchen sink by the method described above in *Cleaning and Sanitizing Surfaces and Toys*.



- Wash bottles and nipples, caps, rings, and preparation utensils in hot water and soap before using. Use sink stopper to hold hot water in the sink. Add dish washing liquid as you fill the sink with hot water.
- Add some hot soapy water into bottles. Put bottle brush into the bottle. Rotate the brush inside the bottle until the bottle is clean. Wash away the soapy water under running water.
- Use nipple brush to wash nipples, including nipple holes.
- Squeeze the hot, soapy water through nipple hole to flush out any trapped milk.
- Rinse all utensils under running water to wash away all traces of soapy water.
- Use sanitized tongs to remove bottles, nipples and other utensils. Place them in the dish drainer to dry.

Preparing Bottles of Formula

- Before opening a can of formula, clean the formula container lid and can opener with soap and water and rinse well. This will minimize the possibility of contamination.
- Unopened containers of powdered formula should not be washed as this might inadvertently introduce moisture into the powder.
- Never add new formula to a half-filled bottle of formula.
- To prepare powdered formula, pour the desired amount of water in a clean baby bottle. Using scoop provided, measure dry formula into baby bottle.
- Attach nipple and ring to the bottle and **SHAKE WELL**.
- Feed prepared formula immediately or store it, covered in the refrigerator for up to 24 hours. Label the can of formula with the date and time of opening so you will know it is used within 24 hours.
- If more than one bottle is prepared, put a clean nipple right side up on each bottle and cover with a nipple cap. Label each bottle with the date and time that it was prepared.
- Do not leave formula at room temperature. Never use formula that is past the expiration date on the package.
- For infants who prefer a warmed bottle, warm the bottle immediately before serving by holding the bottle under running warm tap water or by placing the bottle in a bowl of warm water for not more than 15 minutes.
- Shake the bottle before testing the temperature. Sprinkle some formula on the inside of your wrist to make sure it is comfortably warm (body temperature), but not too hot.
- Never use a microwave oven to warm infant formula.
- Throw out any formula or breast milk that is leftover in the bottle after the feeding.
- Infant formula that is removed from refrigeration must be used within 2 hours or discarded.



Storing Prepared Formula

- Opened cans of concentrated or ready-to-feed liquid infant formula must be covered, refrigerated, and used within 48 hours.
- Freezing infant formula is not recommended.
- Powdered infant formula must be tightly covered and stored in a cool, dry place and used within 1 month.

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Breast Milk

Breast milk and prepared formula must be refrigerated at 40 °F or below. Use an appliance thermometer to be sure your refrigerator is cold enough.



- Disposable bottle liners or other plastic bags not intended for breast milk storage should never be used to store breast milk.
- Pumped breast milk should be stored in clean glass or hard BPA-free plastic bottles with tight-fitting lids. Mothers can also use milk storage bags which are made specifically for freezing human milk.
- When freezing, put the date on breast milk. Thaw and use the frozen breast milk in date order.
- Use thawed breast milk within 24 hours. Do not re-freeze thawed breast milk.
- Breast milk should be labeled with the date it was pumped. Pumped breast milk does not necessarily need to be warmed before giving it to the baby.
- Never put a bottle or bag of breast milk in the microwave.

Table 1. Guide to storing fresh breast milk

Place	Temperature	How long
Counter top, table	Room temp (60 °F – 85 °F)	No more than 3-4 hours
Small cooler with a blue ice pack	50 °F	24 hours
Refrigerator	40 °F or colder	No more than 48 hours
Freezer	0 °F or colder	No more than 6 months

Table 2. Guide to storing thawed breast milk

	Room temperature (60 °F to 85 °F)	Refrigerator (40 °F or colder)	Freezers
Thawed breast milk	No more than 1-2 hours	24 hours	Do not re-freeze

Handling and Storage of Baby food:

Young children are at particular risk for foodborne illness, in part because they have developing immune systems that are not strong enough to combat dangerous pathogens. Their lower body weight allows smaller doses of pathogens to have a greater impact on their health, and compared to adults they have reduced stomach acid production. These acids help to contain dangerous bacteria that enter the body.



- When reheating solid foods that have been cooked and stored in the freezer or the refrigerator, the internal temperature of the food must reach 165 °F, as checked with a food thermometer, to ensure bacteria have been killed.
- If using a microwave to reheat food, make sure that you stir or rotate the food during heating to produce an even heat.
- Because microwaves produce hot and cold spots in foods, you must stir the food well after heating and check the temperature of the food in several spots.
- After checking the temperature with a thermometer, allow the food to sit, covered, until it reaches an appropriate serving temperature.
- Never defrost food at room temperature. There are three safe ways to defrost food: in the refrigerator, in cold water, and in the microwave. Food thawed in cold water or in the microwave should be cooked immediately.
- Do not feed a baby directly from a container or jar of baby food. Otherwise, any leftover food will have to be discarded because it has been contaminated by the baby’s saliva. Instead, use a clean spoon to take out a portion of food and place it into a clean bowl to feed the baby.
- Heat only the portion of food removed from the jar.
- Refrigerate un-served portions of baby food in the original container or jar at 40 °F or below after labeling the jar with the date it was opened.



Dirty Diaper Details

Some of the germs that can cause illness – like *Salmonella*, *Listeria*, *E.coli* and *noroviruses* – can be found in a dirty diaper even when the child is healthy. It’s important to follow key safety steps during diaper-changing, particularly if you will be preparing food afterwards. Hands contaminated with feces play a significant role in the spread of many bacteria and viruses that can cause food poisoning.



- Always change diapers in the same, designated location in your home to keep any germs confined to one area.
- Never change a diaper near food or food preparation surfaces – that means the kitchen and eating areas are always off limits for diaper-changing no matter how busy you are.
- Do not remove the diaper until you are sure you have all the necessary supplies at hand: fresh diaper, diaper wipes, diaper cream or ointment (optional).
- Have a plastic bag handy to put the child’s clothes in if they have been soiled, so the clothes won’t contaminate anything else before they go into the washing machine.
- Lay the child down on a washable changing pad or cover. Have several available, so you can change pads regularly for washing, even if they don’t look stained.
- After unfastening the dirty diaper, lift the child’s legs to use disposable wipes to clean the skin on the child’s genitalia and buttocks.
- Remove stool and urine by wiping from front to back, using a fresh wipe each time.
- Put the soiled wipes into the soiled diaper or directly into a plastic-lined, hands-free covered can.
- Remove the soiled diaper without contaminating any surface not already in contact with stool or urine.
- Fold the soiled surface of the diaper inward and make into a compact ball.
- Do not put the used diaper down on the floor or on some other surface. Instead, put it directly into a hands-free, lidded container lined with a plastic bag.
- Slide a fresh diaper under the child and fasten.
- Wash the child’s hands by wetting them under warm water, then lathering with a liquid soap, washing hands and wrists and in between fingers for 20 seconds. Rinse hands and then thoroughly dry them with a single-use, paper towel. Use the towel to turn off the faucet.
- Next, wash and dry your hands, following the same procedure.

Resources

For more information on food safety practices for babies, young children, and the people around them:

www.fightbac.org/childcare

Moms-to-Be from the US Food and Drug Administration

www.fda.gov/food/resourcesforyou/healtheducators

Other food safety resources for consumers

www.foodsafety.gov

About the Partnership for Food Safety Education

Millions of people get food poisoning each year – an estimated 1 in 6 people in the United States. Half of these victims of illness are children under 15 years old. Most often a person experiences moderate to severe gastroenteritis for a few days, then feels better. They think, “*it was just something I ate.*” However, food poisoning can seriously affect the most vulnerable (young children, pregnant women, the elderly and other immune-compromised individuals) and result in chronic health effects many years after a bout of food poisoning. In short, food poisoning can be more dangerous to health than many people realize.

To support consumers in protecting their health and that of their families, the non-profit Partnership for Food Safety Education helps them to keep top-of-mind practices that destroy or hinder the growth of dangerous foodborne pathogens. Educating consumers about food safety is NOT the entire solution to eliminating illness, but it is a critical aspect of prevention. The basic practices of clean, separate, cook and chill should be common knowledge for all Americans.