



Cleaning and Sanitizing/Disinfecting

GENERAL INFORMATION

Child care settings bring children together for long periods of time. This close, prolonged contact may expose children to many different disease-causing organisms (germs). Although the environment cannot be made germ-free, the harmful effects of germs can be lessened by keeping their numbers at low levels.

Germs can be controlled most effectively by frequent, thorough

1. Hand washing
2. Cleaning, rinsing with clean water, then sanitizing/disinfecting of objects which come into contact with children
3. Proper handling and disposal of contaminated items

Since germs cannot be seen, cleaning then sanitizing/disinfecting those items that do not look soiled or dirty might be overlooked. Similarly, children who do not show symptoms of illnesses may not be suspected of carrying or spreading germs, even though they may be as infectious as those children who do have symptoms. Proper cleaning, rinsing with clean water and then sanitizing/disinfecting practices must be followed routinely, not only when items appear to be soiled or when children appear to be ill.

Several diseases may be spread by contact with blood and body fluids. These fluids should always be treated as if they are infectious because disease-causing germs can be present even in the absence of illness.

Germs that grow on moist surfaces can also spread diseases. Water tables used for play in child care can serve as a source of contamination and must be properly cleaned, rinsed with clean water, and then immediately disinfected.

At the request of local or state health officials, the frequency of cleaning, rinsing with clean water and sanitizing/disinfecting may need to be increased at times to control certain contagious diseases.



DEFINITIONS

1. *Cleaning*: A mechanical process (e.g., scrubbing), using soap or detergent and water, which removes dirt, debris and large numbers of germs. It also removes invisible debris that interferes with disinfection. Disease-causing germs grow best in warm, moist debris, but they may be found even on objects which are not visibly soiled.
2. *Rinsing with clean water*: To wash lightly, especially by dipping into clean water or by letting water run over, into or through.
3. *Sanitizing*: The chemical process of reducing the number of disease-causing germs to a safe level on cleaned food contact surfaces and mouthed toys, objects and surfaces.
4. *Disinfecting*: A physical or chemical process that eliminates virtually all disease-causing germs, except bacterial spores, on environmental surfaces.

GUIDELINES

1. *Surfaces and objects contaminated with blood, urine, vomit or stool*: Clean with detergent and water, rinse with clean water, then disinfect immediately.
2. *Objects handled by young children, such as toys, mouthed objects, food utensils, crib rails and high chair trays*: Clean, rinse with clean water, then sanitize at least daily and when soiled.
3. *Diapering area*: Clean, rinse with clean water, then disinfect after each diaper change.
4. *Bathrooms*: Clean, rinse with clean water, then disinfect at least daily and when obviously soiled.
5. *Toilet-training chairs (if used)*: Empty contents into a toilet, clean seat in a utility sink, rinse with clean water, disinfect after each use and store in the bathroom. After the toilet-training chair is disinfected, the utility sink shall also be disinfected. Sanitary handling of toilet training chairs is very difficult; therefore their use in child care facilities is not recommended.
6. *Hand washing sinks/faucet handles*: Clean, rinse with clean water, then disinfect when soiled.
7. *Indoor surfaces where children's activities occur*: Clean, rinse with clean water, then sanitize tables, chairs, counters daily and when soiled.
8. *Bottles, bottle caps, nipples*: Clean insides of bottles, cups and nipples with a bottle brush and soapy water. Squirt water through nipple. Rinse with clean water. Disinfect by washing in dishwasher or by boiling for five minutes just prior to filling.
9. *Thermometers and pacifiers*: Clean, rinse with clean water, then sanitize after each use.
10. *Water play tables*: Clean, rinse with clean water, then disinfect at least daily and when soiled. Fill with fresh water.
11. *Uncarpeted floors*: Vacuum or sweep, then damp mop with cleaning (detergent) solution at least daily and when soiled. Consider microfiber damp mop to pick up most particles. Rinse with clean water. Follow with disinfecting solution whenever blood or body fluids are present.
12. *Mops*: Clean thoroughly in fresh water and detergent. Rinse with clean water. Soak in a disinfecting bleach solution for 10-30 minutes after use. Wring and hang to dry.



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13. *Carpet:* Maintain carpet free from visible soil. Vacuum daily. Shampoo carpet every six months or more often if necessary (every three to four months for the infant/toddler rooms). Clean carpets when children are not present. Vacuum after cleaning. Clean then sanitize the area where there is obvious body fluid soiling.
14. *Utility gloves:* Utility gloves that are used for cleaning and sanitizing/disinfecting must be cleaned with soap and water after each use, rinsed with clean water and then dipped in a bleach solution up to the wrist. Hang to dry.

Immediately clean, rinse with clean water, then disinfect objects and surfaces contaminated with blood and body fluids (e.g., stool, urine, vomit).

PROCEDURES

1. Cleaning
 - a. Wear disposable gloves when:
 - Handling blood (nosebleeds, cuts) or items, surfaces, or clothing soiled with blood or body fluids
 - You have open cuts, sores or cracked skin
 - Cleaning bathrooms, diapering area or any areas contaminated with stool, vomit or urine
 - b. For spills, wipe up the area to remove blood or body fluid. Use disposable towels and discard in a plastic-lined waste container
 - c. Clean objects and surfaces by scrubbing with detergent and fresh water to remove debris. Do not reuse water that has been standing in pails, basins or sinks
2. Rinsing
 - a. Rinse objects with clean water
3. Disinfecting
 - a. A recommended sanitizer/disinfectant for child care settings is a solution of household bleach and water. A bleach solution is recommended because it is safe, effective, inexpensive and readily available
 - b. If a different commercial sanitizer/disinfectant is used, it must be registered with the U.S. Environmental Protection Agency. It also must be effective against hard-to-kill bacteria (tuberculosis), viruses (hepatitis B), and parasites (*Giardia*). Use according to manufacturer's directions. *For a list of registered commercial disinfectant products, visit the EPA Web site at <http://www.epa.gov/oppad001/chemregindex.htm>*
 - c. For routine disinfection of contaminated surfaces which have first been cleaned with detergent and water then rinsed with clean water, use 8.25 percent bleach Solution 1. This solution is approximately 800 parts per million.



8.25 percent bleach Solution 1

- 2 ½ tablespoons bleach in a gallon of water OR 2 teaspoons bleach in one quart of water (spray bottle) OR 1 teaspoons bleach in one pint of water (spray bottle)
 - Make solutions fresh daily, and label with date and contents
 - Date the original, purchased bottle of bleach when opened and discard unused portion after six months
 - Spray the area thoroughly with the bleach solution, wipe the area to distribute the sanitizer evenly, and allow to air dry. Use single-service, disposable paper towels and discard in a plastic-lined container
- d. To sanitize eating utensils, use 8.25% bleach Solution 2. This solution is approximately 200 parts per million

8.25 percent bleach Solution 2

- 1 to 2 teaspoons of 8.25 percent bleach to a gallon of water OR ½ teaspoon of bleach in a quart of water OR ¼ teaspoon of bleach in a pint of water
 - Eating utensils should be cleaned first, rinsed with clean water, and then soaked in sanitizing solution for at least two minutes. Do *not* rinse objects after soaking, allow to air dry
- e. ***Bleach solution must be made fresh daily*** because it loses its ability to kill germs with time. The original, purchased bottle of bleach should be dated when opened and not kept for more than six months. Paper chlorine strips can be used to measure the strength of the bleach solutions. (Solution 2 should be no stronger than 200 parts per million.) Label bleach solutions with date and contents
- f. Store bleach and bleach solutions out of children's reach
- g. Remove gloves and discard after each use. Wash hands **immediately**. Wash thoroughly and vigorously with soap and water, under warm running water for at least 20 seconds
- h. When purchasing bleach, make sure the bleach concentration is for household bleach. Household chlorine bleach is typically sold in retail stores as 8.25 percent sodium hypochlorite solution. Note that this concentration is higher than past 5-6.25 percent. Check product label for bleach concentration strength



4. Other cleaning and sanitizing methods
 - a. Dishwashers and washing machines are also acceptable for soaking, cleaning and sanitizing washable articles, if hot water is used. National standards for food service sanitation require 180 degrees Fahrenheit water in the final rinse of a mechanical dishwasher. Refer to the 2005 FDA food code for further details. The detergent and mechanical action do the cleaning and the heat acts as a sanitizer
 - b. Boiling objects such as bottle nipples, pacifiers, combs, etc., for five minutes is also an effective method of sanitizing.
5. If using an EPA-registered product, follow the manufacturer's instructions on the label for diluting the product for sanitizing or disinfecting, as well as for the contact time

Bleach Solutions for Cleaning, Rinsing, Disinfecting/Sanitizing

Basic Tips

Bleach solutions must be made fresh daily, kept away from heat, and any unused solution must be discarded at the end of the day.

Bleach must be added to cool water rather than adding water to bleach.

Wear gloves and eye protection when mixing bleach and use a funnel.

Cleaning/disinfecting/sanitizing products must not be used in close proximity to children, and adequate ventilation should be maintained during the procedure to prevent children and caregivers/teachers from inhaling potentially toxic fumes.

Solution 1: Disinfecting

For use on diaper changing tables, hand washing sinks, bathrooms, door & cabinet handles

Water	Bleach 6 to 6.25%	Concentrated Bleach 8.25%
1 gallon (16 cups)	1/4 cup	2 1/2 tablespoons
1 quart (4 cups)	1 tablespoon	2 teaspoons
1 pint (2 cups)	1 1/2 teaspoons	1 teaspoon

Solution 2: Sanitizing

For use on eating utensils, food use contact surfaces, mixed use tables, high chair trays, plastic mouthed toys and pacifiers

Water	Bleach 6 to 6.25%	Concentrated Bleach 8.25%
1 gallon (16 cups)	2 teaspoons	1 to 2 teaspoons
1 quart (4 cups)	1/2 teaspoon	1/2 teaspoon
1 pint (2 cups)	1/4 teaspoon	1/4 teaspoon

Important: If using an EPA-registered product, follow the manufacturer's

instructions on the label for diluting the product for sanitizing or disinfecting, as well as for the contact time. Instructions are available at <http://cfoc.nrckids.org/Bleach/>

[FindingEPARegInfo.cfm](http://cfoc.nrckids.org/Bleach/)

Three-Step Process

for disinfecting and sanitizing non-porous surfaces

1. **Clean** the surface with soap solution first using 1/4 cup liquid detergent to 1 gallon clean water or 1 tablespoon to 1 quart of water. *Soap solutions must be made fresh weekly.*
2. **Rinse** with clean water and dry with paper towel.
3. **Spray** bleach solution and allow to air dry for 2 minutes before wiping dry with a paper towel.



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Diapering

Changing diapers in a sanitary manner is an important way child care providers can prevent the spread of infectious organisms. Germs found in stool can be spread by the hands of staff or children, or through contaminated food, water, objects or surfaces. Many diseases can be spread by contact with stool. These include infections caused by bacteria (e.g. Salmonella, Shigella, Campylobacter, etc.), parasites (e.g., Giardia, pinworms, etc.), and viruses (e.g. Rotavirus, Norwalk virus and hepatitis A). You can help prevent illness by following the diapering guidelines described below.

BASIC PRINCIPLES

- Change diapers only in the designated diapering area
- Separate diapering area from the food storage, preparation and eating areas
- Dispose of soiled diapers properly
- Wash hands (staff and children) before and after diapering
- Do not allow pacifiers, toys, baby bottles or food/drinks in the diapering area

EQUIPMENT

A. Changing surface

- Keep the changing surface away from children, preferably 3 feet from the floor
- The surface **must** be clean, padded, non-absorbent, free of holes, rips or other damage and easily cleaned
- For extra protection, use nonabsorbent, disposable paper under child

B. Hand washing, sink and supplies

- The best hand washing sink is one equipped with both hot and cold running water mixed through one faucet. Hot water should be at a minimum of 90 degrees Fahrenheit and a maximum of 120 degrees Fahrenheit
- Water controls ideally should be foot, knee or wrist (paddle) operated to avoid contamination of hands
- The sink should be next to the changing surface and separate from the food preparation sink
- Do not put, rinse or wash bottles or dishes in hand washing sink
- Keep liquid soap and paper towels within reach
- Use single-service, disposable paper towels instead of cloth towels
- Turn off faucet handles with disposable paper towels

C. Diapers

- High-absorbency, disposable paper diapers are preferred because cloth diapers leak



more and require more handling (the more handling, the greater chances of infection)

- All diapers must have an absorbent inner lining completely contained within an outer covering made of waterproof material that prevents the escape of feces and urine
- For cloth diapers, the outer covering and inner lining must be changed together at the same time. Outer coverings must not be reused unless they are laundered

D. Disposable gloves

- Gloves should be worn when changing the diaper of a child with diarrhea or a known infection that is spread through the stool
- Pregnant women or women considering pregnancy should wear gloves when changing any diaper
- Gloves should be worn by staff if they have open cuts, sores or cracked skin; or if the child has open areas on the skin
- Discard gloves and wash hands after each diaper change

E. Disposable wipes

- Pre-moistened wipes must be dispensed in a manner that prevents contamination of the wipes or the container
- If this is not possible, each child should have a separate container of wipes labeled with his or her name and used only for that child

F. Skin care items

- If skin care items are used, keep them within the provider's reach and out of reach of the children
- Each child must have his/her own labeled container of skin care products
- Parents must provide written and signed directions and permission to use these products
- Use skin care items according to package directions

G. Plastic bags

- Use disposable plastic bags to line waste containers and to send soiled clothing or cloth diapers home
- Store plastic bags out of children's reach

H. Waste container

- Use a tightly-covered container with a foot-operated lid
- Keep the container away from children
- Line the container with a disposable plastic trash bag
- Empty container before full and at least daily
- Cleaned with detergent and rinse with clean water daily. Disinfect when visibly soiled



I. Toilet-training chairs

- Flush toilets are recommended rather than toilet-training chairs
- If used, chair frames should be smooth and easy to clean
- The toilet-training chair must be emptied, cleaned with detergent and water, rinsed with clean water, then disinfected after each use

J. Cleaning supplies

- Use disposable gloves and towels, cleaning solution (detergent) and sanitizing/disinfecting solution (bleach)
- See cleaning, rinsing and sanitizing/disinfecting procedures (page 8) for specific instructions

For more information, please call the Health Department at 859.363.2070



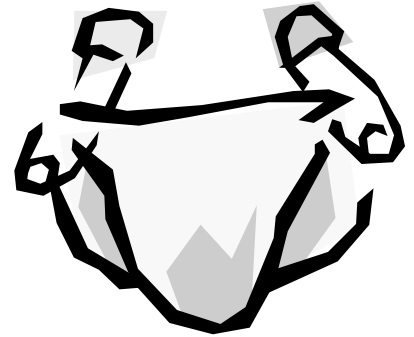
Prevent Spread of Disease: Use proper diapering/toileting procedures

Diarrhea and other stomach illnesses are spread when proper diapering/toileting procedures are not used. Germs from stool get on the hands of adults, children and nearby surfaces. Germs are spread when the contaminated hands or surfaces later come in contact with toys, furnishings, door knobs, etc. Diaper changing surfaces should *not* be used for food preparation or other purposes.

Proper hand washing and procedures that reduce contact with soiled diapers can reduce the spread of diarrhea and other stomach illnesses.

DIAPER CHANGING STEPS

1. **Check** to see if all your supplies are ready
2. **Put** gloves on
3. **Lay** child on table. Never leave child unattended
4. **Clean** child's bottom from front to back
5. **Put** disposable diaper in a lined covered trash can
6. **Remove** soiled gloves and put in a lined covered trash can
7. Use disposable wipes to **clean** your hands, then child's hands
8. **Diaper** and dress the child
9. **Wash** the child's hands with liquid soap and warm water for 20 seconds
10. **Return** the child to a supervised area
11. **Clean** and **sanitize** diaper changing surface **and** any toys or objects touched during diaper change
12. **Wash** your hands



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