



Health & Safety Notes

Safe and Effective Cleaning, Sanitizing and Disinfecting

What are cleaning, sanitizing and disinfecting?

Sometimes these terms are used interchangeably, but they are not the same. They have different outcomes which the United States Environmental Protection Agency (EPA) defines as follows:

- ▶ To clean means to physically remove dirt, debris and sticky film from the surface by scrubbing, washing, wiping and rinsing. You can clean with a mild soap or detergent and water.
- ▶ To sanitize means to apply a product that reduces germs to safer levels. Sanitizing surfaces destroys enough germs to reduce the risk of becoming ill from contact with those surfaces.
- ▶ To disinfect means to apply a product that destroys nearly all germs when applied to hard, nonporous surfaces. Disinfecting is a higher level of germ killing.

What should I sanitize?

Sanitizing is recommended for food surfaces (dishes, utensils, cutting boards, high chair trays) and other objects intended for the mouth like pacifiers and teething toys.

What should I disinfect?

Disinfecting is recommended for hard non-porous surfaces such as toilets, changing tables, and other bathroom surfaces; blood spills and other potentially infectious body fluids like vomit, urine and feces.

How do I know which product to use?

Sanitizing and disinfecting products are called antimicrobials. These products kill bacteria, viruses, fungi and mold on hard surfaces. The EPA sets standards for products to make sure that they kill germs and don't pose serious immediate health hazards to people.

All products used to sanitize or disinfect must be registered with the EPA. Only products with EPA registration numbers on the label can claim they kill germs if used as directed. Product labels have information about how to use it to sanitize or disinfect, and which germs are killed.

What about bleach?

Bleach is the most common product used for sanitizing and disinfecting in Early Care and Education (ECE) programs. If used correctly, bleach reliably sanitizes and disinfects hard, non-porous surfaces of most common and harmful bacteria and viruses. A small amount of bleach can be diluted with water and it is inexpensive.

Are there problems with bleach?

There are increasing concerns about the health effects of bleach, especially for children and staff with asthma. When bleach is applied to surfaces, fumes get into the air and can irritate the lungs, eyes and the inside of the nose. For staff who mix bleach solutions, contact with full strength bleach can be even more harmful and can damage skin, eyes and clothing.

SAFER WAYS TO DILUTE BLEACH

- ▶ USE ONLY EPA REGISTERED BLEACH and follow the directions on the label.
- ▶ Select a bottle made of opaque material.
- ▶ Dilute bleach with cool water and *do not use more than the recommended amount of bleach*.
- ▶ Make a fresh bleach solution daily; label the bottle with contents and the date mixed.
- ▶ Wear gloves and eye protection when diluting bleach.
- ▶ Use a funnel.
- ▶ Add bleach to the water rather than water to bleach to reduce fumes.
- ▶ Make sure the room is well ventilated.

SAFER USE OF BLEACH SOLUTIONS

- ▶ Before applying bleach, clean off dirt and debris with soap or detergent, then rinse with water.
- ▶ If using a spray bottle, apply bleach using a heavy spray instead of a fine mist setting.
- ▶ Keep the surface wet with bleach according to label instructions (use a timer). This is called contact time or dwell time.
- ▶ Sanitize when children are not present.
- ▶ Ventilate the room and allow surfaces to dry completely before allowing children back.
- ▶ Store all chemicals out of reach of children in a way that will not tip or spill.
- ▶ Never mix or store ammonia with bleach or products that contain bleach.

Caution: Always follow label instructions! Undiluted bleach comes in different concentrations (e.g. 8.25%, 6%, 5.25% sodium hypochlorite). Read the label for exact dilution instructions.

Are there alternatives to bleach?

Commercial products registered with the EPA as sanitizers or disinfectants may be used according to the directions on the label. Look for an EPA registration number. Follow instructions for dilution (different for sanitizing vs. disinfecting) and contact time. Check if the product is safe for food surfaces, if pre-cleaning is needed, and if rinsing is needed.

Some child care programs are using EPA registered products with hydrogen peroxide, citric acid, alcohol, or lactic acid as the active ingredient because they have fewer irritating fumes. In response to consumer demand, more of these products can be found in stores and online.

Non-chemical equipment, like dishwashers and steam cleaners, can be used to sanitize in certain situations. New methods and technologies like high-quality microfiber cloths and mops used with soap and water can also reduce germs. More studies need to be done to see if these alternative methods work as well as chemicals to sanitize in ECE environments.

Resources and References:

American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. CFOC Standards Online Database. Aurora, CO; National Resource Center for Health and Safety in Child Care and Early Education; <http://nrckids.org> Accessed 3/14/2019. Appendix J and K

U.S. Environmental Protection Agency, What are Antimicrobial Pesticides? <https://www.epa.gov/pesticide-registration/what-are-antimicrobial-pesticides#nph>