

## FACT SHEET



### Changing Soiled Underwear for Young Children



Disposable training pants (e.g. Pull-Ups®) and underwear for children who still have “accidents” may help many children move from diapers toward independent toileting. However, changing soiled disposable training pants, underwear and other soiled clothing introduces an increased risk of spread of infection. During the change, many surfaces may be contaminated with germs in urine and feces. Teachers/caregivers need to follow procedures to limit the spread of germs.

#### **The Risks**

Urine of toddlers and preschool age children should be expected to have Cytomegalovirus (CMV) – a germ which can cause a flu-like illness in adults, and severe harm to a fetus of a pregnant mother. Many studies have shown that a large proportion of young children are infected with CMV (cytomegalovirus) without having symptoms themselves.

Feces are common carriers of bacteria and many viruses. In child care settings where sanitation is not a priority, germs that cause diarrhea are commonly found in large amounts on floors, tables, toys and the hands of caregivers and children. Astrovirus, calicivirus, rotavirus, norovirus, adenovirus, hepatitis A, pin worms, *Cryptosporidium parvum*, *Giardia*, *Shigella*, *Salmonella*, *Camplobacter*, *Clostridium difficile* and disease-causing *Escherichia coli* are among the germs that can spread through improper changing routines in child care.

#### **Prevention**

Two key references detail the measures that every group care program should follow to reduce the spread of infection:

- *Managing Infectious Diseases in Child Care and Schools: A Quick Reference Guide*, third edition provides “best practice recommendations” from the national American Academy of Pediatrics (AAP). The Quick Reference Sheets in the book explain the risks and control measures for individual types of infections. Chapter 3 is about preventing infection. To order a copy of the book, call the AAP at 888/227-1770 or go to [www.aap.org/bookstore](http://www.aap.org/bookstore).
- *Caring for Our Children*, third edition, 2011 includes the national standards for best practice on a wide range of health and safety topics. The details about hand hygiene are in Standard 3.2.2.2. *Appendix K* is an easy to read table that lists which surfaces should be cleaned and sanitized or disinfected, and when to carry out these measures. *Appendix J* explains the differences between cleaning, sanitizing and disinfecting. The document can be purchased from AAP, American Public Health Association and the National Association for the Education of Young Children or accessed at no cost (with the most recent updates and clarifications) on the website of the National Resource Center for Health and Safety in Child Care (<http://nrckids.org>)



## Procedure for Changing Soiled Disposable Underpants or Cloth Garments

### 1. Get organized.

**Assemble all supplies for the change, removing supplies from their containers to avoid contamination of the containers during the change. Have a hands-free, plastic-lined, covered, waste can available to receive the contaminated disposable items from the change.** These items might include clean disposable training pants or cloth garments, a disposable material to cover the area where the change will occur, the expected amount of wipes, gloves (recommended, although not required) and 1 plastic bag for any soiled clothing.

To avoid back strain use a changing table that brings the child to a comfortable height. Tables with built-in steps or an ordinary sturdy step ladder that the child can climb with the teacher/caregiver's help and supervision are helpful. Using a changing table helps establish a well-organized changing area.

**Cover the surface on which the change occurs with sufficient disposable material to protect whatever is underneath – and big enough so the teacher/caregiver can fold over any contaminated portion of the disposable material.** Only a clean surface should come in contact with the child's clothing once the soiled articles have been removed – i.e. when the child is being dressed. Whatever is used must cover the entire area where any soiled materials will be in contact, and must be of a substance or thickness that will not allow fluids that contain germs to get through to the undersurface. No matter what disposable covering is used, the teacher/caregiver must clean any visibly soiled surface and then disinfect all contaminated surfaces, including the surface under the disposable covering after the change is completed. Some germs get through any covering. Be sure to use a surface under the disposable material that is easy to clean and disinfect such as a non-porous mat, plastic sheet or seamless linoleum.

### 2. Avoid contact with soiled items.

**Consider whether to change the child lying down or standing up.** Changing toddlers standing up may promote a consistent message about being "big." However, having the child lie down for the change makes it easier to clean the child's bottom, is less awkward for the caregiver to manage, and better defines the surfaces that are likely to be contaminated during the procedure. If the child's hands are clean, the child may help assemble the supplies, and help put on clean clothing to be a "big helper."

**If the child is changed standing up, it is likely that clothing, shoes and socks will be soiled. The teacher/caregiver must remove these items before the change begins. If the shoes become soiled, germs will spread wherever the child walks after the change.** Studies have shown that floors in play areas in child care are heavily contaminated with fecal bacteria, most likely due to footwear that spread germs from contact with feces and urine. The

child's clothing may also get contaminated, so have the child hold the upper body clothing up above his/her waist. This keeps the child's hands busy and the teacher/caregiver knows where the child's hands are during the changing process. Another approach is to use a plastic clothes pin that can be washed and disinfected after the change to hold the clothing up and out of the way.

**If the child is wearing soiled disposable underpants, pull the sides apart, rather than sliding the garment down the child's legs.** The objective is to reduce contact of urine or feces with other surfaces. **If the child is wearing soiled cloth underwear, remove the underwear and any soiled clothing, doing your best to minimize the contact of soiled surfaces with the child's skin and anything else. Throw the disposable items directly into a hands-free, plastic lined waste container. Place all soiled clothing that needs to be laundered directly into a plastic bag after the article is removed.**

**Avoid further contamination of surfaces by temporary placement of soiled articles on other surfaces.** Do not rinse soiled clothing in the toilet or elsewhere. To avoid further contamination of the environment, send all soiled clothing home for cleaning without rinsing it in the child care setting. Any handling of soiled articles increases the risk of spreading germs to other children in the group.

If the child's shoes are soiled, wash and disinfect them before putting them back on the child. It is a good idea for the child care facility to have a few extra pairs of socks and some donated spare shoes in appropriate sizes for those who are involved in toilet learning.

### **3. Clean the child's skin.**

**Wipe the child's skin with disposable wipes from front to back, using a fresh wipe each time. Dispose of the wipes directly into a hands-free, plastic-lined, covered waste can.**

### **4. Throw away disposable items.**

**Throw away the wipes and all disposable items directly into a hands-free, plastic-lined, covered waste can. Check the disposable surface material under the child's feet. If there is any contamination, fold it over to put a fresh, unsoiled surface under the child.**

If the teacher/caregiver wore gloves during the change, the gloves should go directly into the hands-free, plastic-lined, covered waste can, before touching any clean clothing. Whether or not gloves were used, **either a) use a disposable wipe to clean your hands and then another to clean the child's hands, putting each wipe directly into a hands-free, plastic-lined, covered waste can, or b) use an alcohol-based hand sanitizer for this step for the adult and for a child who is over 24 months of age.**



### **5. Put on clean underwear and clothing.**

**Assist the child, as needed, in putting on clean disposable underpants or cloth underwear, then in re-dressing. Put the child's shoes and socks back on.**

### **6. Child performs hand hygiene.**

**Have the child wash his/her hands at the sink after the change is completed.** Wash with liquid soap and running water, lather for 10-20 seconds, and then turn off any faucet handle with a paper towel. (*Caring for Our Children* standards specify lathering for 20 seconds and allow

children over 24 months of age to use alcohol-based hand sanitizer under 1:1 supervision if the directions on the sanitizer are followed. PA regulations require hand washing.) **Return the child to a supervised area.**



## **7. Clean and disinfect contaminated surfaces.**

**Fold the contaminated material used as the disposable changing surface so what is touched as it is discarded is mostly the clean, outer surface. Throw it away into a hands-free, plastic-lined, covered waste can.** Make sure that all remaining surfaces that were touched during the change are visibly clean, or clean them with detergent and then rinse them with water. **Disinfect all potentially contaminated surfaces with a disinfecting solution** – with an EPA-registered product whose label indicates it is suitable for disinfecting changing surfaces. Leave solution on for required contact time. **Under federal law, EPA-registered products must be used as specified on the manufacturer’s label.** A bleach and water dilution should be made fresh daily. Bleach evaporates from the solution over the course of a day.

## **8. Teacher/caregiver performs hand hygiene.**

**Wash the teacher/caregiver’s hands after completing the disinfecting step.** Wash by wetting the hands, applying liquid soap and lathering for 10-20 seconds (20 seconds is recommended by the CDC and in *Caring for Our Children*) rinse, use a paper towel to dry the hands and then to turn off the faucet handle if required to stop the faucet water flow.

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