

COMMUNICABLE DISEASES (GUIDELINES FOR HANDLING BODY FLUIDS IN SCHOOLS)

Recent concern about where children with HIV infections should be educated has raised several questions regarding exposure of teachers and children to potentially infectious body fluids from children with communicable diseases in the school setting.

- A. Does contact with body fluids present a risk of infection?
- B. What should be done to avoid contact with potentially infected body fluids?
- C. What should be done if direct contact with body fluids is made?
- D. How should such fluids when spilled be removed from the environment?

The following guidelines are meant to provide simple and effective precautions against transmission of disease for all persons potentially exposed to the blood or body fluids of any student. No distinction is made between body fluids from students with a known disease or those from students without systems or with an undiagnosed disease.

DOES CONTACT WITH BODY FLUIDS PRESENT A RISK?

The body fluids of all persons should be considered to contain potentially infectious agents (bacteria and viruses). The term "body fluids" includes: blood; semen; drainage from scrapes; cuts, and open lesions; feces; urine; vomitus; respiratory secretion (for example, nasal discharge); and saliva. Contact with body fluids presents a risk of infection with a variety of infectious agents. In general, however, the risk is very low and dependent on a variety of factors including the type of fluid with which the contact is made and the type of contact made.

With the exception of blood, which is normally sterile, the body fluids with which one may come in contact usually contain many organisms, some of which may cause disease. Furthermore, many infectious agents may be carried by individuals who have no symptoms of illness. These individuals may be at various stages of infection: incubation, mildly infected without symptoms, or chronic carriers of certain infectious agents including the HIV and hepatitis viruses. In fact, the transmission of communicable diseases is more likely to occur from contact with infected body fluids of unrecognized carriers than from contact with fluids from recognized individuals because simple precautions are not always followed.

WHAT SHOULD BE DONE TO AVOID CONTACT WITH BODY FLUIDS?

When possible, direct skin contact with body fluids should be avoided. Disposable gloves should be available in the office of the custodian, nurse, or principal. Gloves are recommended when an individual with open lesions on their hands has direct contact with body fluids (for example treating bloody noses, handling clothes soiled by incontinence, cleaning small spills by hand). If any contact is made with body fluids, hands should be washed afterwards. Gloves used for this purpose should be put in a plastic bag or lined trash can, secured, and disposed of daily.

WHAT SHOULD BE DONE IF DIRECT SKIN CONTACT OCCURS?

In many instances, unanticipated skin contact with body fluids may occur in situations where gloves may be immediately unavailable (for example, when wiping a runny nose, applying pressure to a bleeding injury, helping a child in the bathroom). In these instances, hands and other affected skin areas of all exposed persons should be routinely washed with soap and water after direct contact has ceased. Clothing and other nondisposable items (for example, towels used to wipe up body fluid) that are soaked through with body fluids should be rinsed and placed in plastic bags. If presoaking is required to remove stains, use gloves to rinse or soak the item in cold water prior to bagging. Clothing should be sent home for washing, with appropriate

directions to parents. Contaminated disposable items (for example, tissues, paper towels, diapers) should be handled with disposable gloves.

HOW SHOULD SPILLED BODY FLUIDS BE REMOVED FROM THE ENVIRONMENT?

Schools need to have standard procedures in place for removing body fluids. These procedures should be reviewed to determine whether appropriate cleaning and disinfection steps have been included. Many schools stock sanitary absorbent agents specifically intended for cleaning body fluids spills (e.g., ZGOOP*, Parsen Mfg. Co., Philadelphia, PA.). Disposable gloves should be worn when using these agents. The dry material is applied to the area, left for a few minutes to absorb the fluid, and then vacuumed or swept up. The vacuum bag or sweepings should be disposed of in a plastic bag. While the broom and dustpan should be rinsed in a disinfectant, no special handling is required for vacuuming equipment.

HAND WASHING PROCEDURES

Proper hand washing requires the use of soap and water and vigorous washing under a stream of running water for approximately ten seconds. Soap suspends easily removable soil and micro-organisms, allowing them to be washed off. Rinse under running water to carry away dirt and debris. Use paper towels to thoroughly dry hands.

DISINFECTANTS

An intermediate-level disinfectant should be used to clean surfaces contaminated with body fluids. Such disinfectants will kill vegetative bacteria, fungi, tubercle, bacillus, and viruses. The disinfectant should be registered by the U.S. Environmental Protection Agency (EPA) for use as a disinfectant in medical facilities and hospitals. Various classes of disinfectants are listed below. Hypochlorite solution (bleach) is preferred for objects that may be put in the mouth.

Ethyl or isopropyl alcohol (70 percent)

Phenolic germicidal detergent in a 1% aqueous solution (Lysol*)

Sodium hypochlorite with at least 100 ppm available chlorine

(1/2 cup household bleach in 1 gallon water, needs to be freshly prepared each time it is used)

Hydrogen peroxide (3% solution)

Quaternary ammonium germicidal detergent in 2% aqueous solution (Triquat*, Mytax*, or Sage*)

Iodophor germicidal detergent with 500 ppm available iodine

Heat (130 degrees F for 10 minutes)

DISINFECTION OF HARD SURFACES AND CARE OF EQUIPMENT

After removing the body fluid spill, a disinfectant is applied. Mops should be soaked in the disinfectant after use and rinsed thoroughly or washed in a hot water cycle before rinse. Disposable cleaning equipment and water should be placed in a toilet or plastic bag as appropriate. Nondisposable cleaning equipment (dustpans, buckets) should be thoroughly rinsed in the disinfectant. The disinfectant solution should be promptly disposed down a drain pipe. Remove gloves and discard in appropriate receptacles.

DISINFECTION OF RUGS

Apply sanitary absorbent agent, let dry, and vacuum. If necessary, mechanically remove with dustpan and broom, then apply rug shampoo (a germicidal detergent) with a brush and revacuum. Rinse dustpan and broom in disinfectant. Wash brush with soap and water. Dispose of nonreusable cleaning equipment as noted above.

LAUNDRY INSTRUCTIONS FOR CLOTHING SOILED WITH BODY FLUIDS

The most important factor in laundering clothing contaminated in the school setting is eliminating potentially infectious agents with soap and water. Adding bleach will further reduce the number of potentially infectious agents. Clothing soaked with body fluids should be washed separately from other items. Presoaking may be

required for heavily soiled clothing. Otherwise, wash and dry as usual. If the material is bleachable, add 1/2 cup household bleach to the wash cycle. If material is not colorfast, add 1/2 cup nonchlorox bleach (Clorox II*, Borateem*) to the wash cycle.

*Brand names are used only as examples of each type of germicidal solution and should not be considered an endorsement of a specified product.