

The Health Services Department of Lacey Township School is concerned with the control of communicable disease among its population. Included in this packet are basic facts about the transmission of disease and the New Jersey State Health Department recommendations.

BASIC FACTS ABOUT DIRECT AND INDIRECT TRANSMISSIONS OF INFECTIOUS AGENTS:

Transmission of disease can be either by direct or indirect transmission. Direct transmission is an immediate transfer of an infectious agent (bacteria, virus, etc.) from a person with an infection to a receptive person. It is usually by direct contact as in touching, kissing, sexual contact, or by touching contaminate body fluids. It also includes droplet spread on susceptible membranes during sneezing, biting, coughing, spitting, singing, or talking (usually limited to a distance of a yard or less). A bite of a rabid animal is also in this category.

Indirect transmission includes the carrying of an infectious agent to a susceptible person by any contaminated article including water, food, soiled clothes, handkerchiefs, toys, blood and plasma. Transmission via crawling, flying, or biting insects come under this category also.

Airborne bacteria and viruses are also a source of contamination.

NEW JERSEY STATE HEALTH DEPARTMENT GUIDELINES:

The following guidelines are meant to provide simple and effective precautions against transmission of disease for all persons including pregnant women, 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 symptoms or with undiagnosed disease.

DOES CONTACT WITH BODY FLUIDS PRESENT A RISK?

The body fluids of all persons should be considered to contain potentially infectious agents (germs). The term "body fluids" includes: blood, semen, drainage from scraps and cuts, feces, urine, vomitus, respiratory secretions (e.g., nasal discharge) and saliva. Contact with body fluids presents a risk of infection with a variety of germs. In general, however, the risk is very low and dependent on a variety of factors, including the type of fluid with which contact is made and the type of contact made with it.

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Table 1 provides examples of particular germs that may occur in body fluids of children. It must be emphasized that 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 germs may be carried by individuals who have no symptoms of illness. These individuals may be at various stages of infection: incubating disease, mildly infected without symptoms, or chronic carriers of certain infectious agents including the AIDS and hepatitis viruses. In fact, transmission of communicable disease 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 carried out.

TABLE 1
Transmission Concerns in the School Setting
Body Fluid Source of Infectious Agents

<i>Body Fluid Source</i>	<i>Organism of Concern</i>
Blood: cuts/abrasions nosebleeds menses contaminated needles	Hepatitis B virus AIDS virus Cytomegalovirus
Feces: incontinence	Salmonella bacteria Shigella bacteria Rotavirus Hepatitis A virus
Urine: incontinence	Cytomegalovirus
Respiratory Secretions: saliva nasal discharge	Mononucleosis virus Common Cold virus Influenza
Vomit	Gastrointestinal viruses e.g.: Norwalk agent Rotavirus
Semen	Hepatitis B AIDS virus Gonorrhea

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 at least the office of the custodian, nurse or principal. Gloves are recommended when direct hand contact with body fluids is anticipated (e.g., treating bloody noses, handling clothes soiled by incontinence, cleaning small spills by hand.) If extensive 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 (e.g., when wiping a runny nose, applying pressure to a bleeding injury outside the classroom, 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 (e.g., 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, (e.g., blood, feces) 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/teachers (see page 4). Contaminated disposable items (e.g., tissues, paper towels, diapers) should be handled as with disposable gloves.

HOW SHOULD SPILLED BODY FLUIDS BE REMOVED FROM THE ENVIRONMENT?

Most schools have standard procedures already in place for removing body fluids (e.g., vomitus). These procedures have been reviewed to determine whether appropriate cleaning and disinfection steps have been included. Many schools stock sanitary absorbent agents specifically intended for cleaning body fluid 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 vacuumed or swept up. The vacuum bag or sweepings should be disposed of in a plastic bag. Broom and dust pan 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 10 seconds.

Soap suspends easily removable soil and microorganisms allowing them to be washed off. Running water is necessary to carry away dirt and debris. Rinse under running water. 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 US 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.***

1. Ethyl or isopropyl alcohol (70%)
2. Phenolic germicidal detergent in a 1% aqueous solution. (e.g., Lysol*)
3. Sodium Hypochlorite with at least 100 ppm available chlorine (1/2 cup household bleach in 1 gal. Water, *needs to be freshly prepared each time it is used.*)
4. Quaternary ammonium germicidal detergent in 2% aqueous solution. (e.g., Tri-quat*, Mytar* or Sage*)
5. Iodophor germicidal detergent with 500 ppm available iodine. (e.g., Wescodyne*)

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

DISINFECTION OF HARD SURFACES AND CARE OF EQUIPMENT.

After moving the soil, a disinfectant is applied. Mops should be soaked in the disinfectant after use and rinsed thoroughly or washed in hot water cycle before rinse. Disposable cleaning equipment and water should be placed in a toilet or plastic bag as appropriate. Nondisposable cleaning equipment (dust pans, 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 dust pan and broom, then apply rug shampoo (a germicidal detergent) with a brush and revacuum. Rinse dust pan and broom in disinfectant. If necessary, 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 elimination of potentially infectious agents by soap and water. Addition of 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 ½ cup household bleach to the wash cycle. If material is not colorfast add ½ cup nonchlorox bleach (e.g., Clorox II, Borateem) to the wash cycle.

GUIDELINES FOR HANDLING BODY FLUIDS IN SCHOOLS was prepared by Elaine Brainerd, M.A., R.N., State Department of Education, in consultation with James Hadler, M.D., M.P.H., Chief, Epidemiology Section, Patricia Checko, M.P.H., Epidemiology Program and William Sabella, AIDS Coordinator, Connecticut State Department of Health Services. December, 1984