

Appendix I

Biological Safety: Universal Precautions

The Universal Precautions advocated by the Center for Disease Control (CDC) and the National Institutes of Health (NIH) have grown out of the dangers inherent in the handling of the Human Immunodeficiency Virus (HIV). As more has been learned about the transmission of pathogens from handling infectious materials, the rules have been expanded to cover virtually all infectious materials, not just HIV. The evolution of these rules can be traced through the following CDC documents:

Recommendations for Prevention of HIV Transmission in Health-Care Settings, MMWR 36(SU02);001, 8/21/1987.

Perspectives in Disease Prevention and Health Promotion Update: Universal Precautions for Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and Other Blood borne Pathogens in Health-Care Settings, MMWR 37(24); 377-388, 6/24/1998.

Guidelines for Prevention of Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Health-Care and Public-Safety Workers, MMWR - Vol. 38, No. S-6, 6/23/1989.

Universal Precautions for the Prevention of Transmission of HIV and Other Bloodborne Infections, Hospital Infections Program (URL:
<http://www.cdc.gov/ncidod/hip/blood/universa.htm>)

These detailed instructions are much more extensive than is normally applicable to elementary and secondary educational institutions. Fortunately, NIH has prepared a very brief summary that will suffice for almost all situations met in elementary and secondary schools. This summary is presented here for your use. The detailed instructions, if needed, are available on-line from the CDC site listed in Appendix H.

Universal Precautions:

1. **Barrier protection** should be used at all times to prevent skin and mucous membrane contamination with blood, body fluids containing visible blood, or other body fluids (cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids, semen and vaginal secretions).

Barrier protection should be used with ALL tissues.

The type of barrier protection used should be appropriate for the type of procedures being performed and the type of exposure anticipated. Examples of barrier protection include disposable lab coats, gloves, and eye and face protection.

2. **Gloves** are to be worn when there is potential for hand or skin contact with blood, other potentially infectious materials, or items and surfaces contaminated with these materials.
3. Wear **face protection** (face shield) during procedures that are likely to generate droplets of blood or body fluid to prevent exposure to mucous membranes of the mouth, nose and eyes.
4. Wear **protective body clothing** (disposable laboratory coats (Tyvek)) when there is a potential for splashing of blood or body fluids.
5. **Wash hands of other skin surfaces** thoroughly and immediately if contaminated with blood, body fluids containing visible blood, or other body fluids to which universal precautions apply.
6. **Wash hands immediately** after gloves are removed.
7. **Avoid accidental injuries** that can be caused by needles, scalpel blades, laboratory instruments, etc. when performing procedures, cleaning instruments, handling sharp instruments, and disposing of used needles, pipettes, etc.
8. Used needles, disposable syringes, scalpel blades, pipettes, and other **sharp items are to be placed in puncture resistant containers** marked with a biohazard symbol for disposal.