BLOODBORNE PATHOGENS

IN SCHOOLS

INTRODUCTION

- **In an educational environment, it is very important to know how to protect yourself and students from bloodborne diseases like AIDS and Hepatitis B. At the same time, it is important to safeguard the rights and dignity of all students and staff.**

BLOODBORNE DISEASES

These include many different diseases, but we will concentrate on those of greatest concern in the school setting:

- Hepatitis B
- HIV/AIDS

Hepatitis B (HBV)

- **In the United States, approximately 300,000 people are infected with HBV annually. HBV is a virus that infects the liver. The HBV is very durable and it can survive in dried blood for up to seven days. For this reason, it is the primary concern for all members of a school staff who may come in contact with blood or potentially infectious materials.**

Human Immunodeficiency Virus (HIV)

- **Acquired Immune Deficiency Syndrome (AIDS) is caused by a virus called the HIV. Once infected with HIV, it may be several years before a person develops symptoms. HIV attacks the body's immune system, weakening it so that it cannot fight other deadly diseases. Estimates on the number of people infected with HIV vary, but some suggest that an average of 35,000 people are infected each year in the United States. It is believed that as of 2000, 920,000 persons were living with HIV/AIDS in the U.S. These numbers could be higher, as many people who are infected are totally unaware of it.**

HIV, cont'd.

- **The HIV is very fragile and will not survive very long outside of the human body. It is primarily of concern to staff members providing first aid or medical care in situations involving fresh blood or other potentially infectious materials. Although the chances of contracting HIV in a school environment are very small, all precautions must be taken to avoid exposure.**

TRANSMISSION

HIV and HBV are primarily spread by three types of body fluids:

- **Blood**
- **Vaginal Secretions**
- **Semen**

- **Both diseases can be transmitted from pregnant women to their children, before, during or after birth.**

To actually get one of these diseases, blood or other body fluids containing HBV or HIV must get inside your body and enter the bloodstream through a break in the skin or through the mucous membranes. The two most common ways this happens are:

- Having sex with an infected person
- Sharing needles to inject drugs.

*Normally, your skin acts as a protective barrier to keep viruses out. But cuts, sores, or even tiny breaks in the skin from dermatitis or acne can be doorways for the viruses to enter your body.

MYTHS ABOUT TRANSMISSION

- **HIV and HBV are not spread through the air as are cold and flu germs, so you will not get either disease from working alongside someone who is infected or from touching, kissing on the cheek, coughing or sneezing. You also will not get either disease by:**
  - **Sharing things like telephones or bathrooms with an infected person**
  - **Using eating utensils, water fountains, gym equipment or swimming pools**
  - **Having contact with someone's sweat**
  - **Being exposed to someone's saliva**
  - **In school settings, sporting events are a concern for many people. According to government researchers, the odds of contracting HIV during a sporting event, with the exception of boxing, are greater than a million to one. Even when an athlete is injured and bleeds, it is unlikely that enough of one person's blood could enter another person's body during competition, even in a contact sport.**

WHAT IS THE REAL RISK AT SCHOOL?

- **The bottom line is that to transmit HIV or HBV, there must be contact between broken skin or mucous membranes and infected blood, therefore it is important to be aware of how you might be exposed to these materials during the school day. Some examples include fights, sports injuries, nosebleeds and accidents in science labs or any other setting where the students use glass or sharp objects. As a precaution, any time you are faced with blood, you should take the appropriate steps to protect yourself.**

Use protective barriers to avoid contact with blood!

- Never touch blood or any moist body substance with your bare skin. When there is bleeding, have the person put pressure on it themselves, if possible. You can help, but always use a barrier to avoid direct contact with the blood. Disposable gloves are the best, but in any emergency you can use whatever is handy – a thick wad of paper, or a clean plastic bag.

After a possible exposure:

- **When you remove your gloves, take care not to expose your skin to the outside of the glove. Always wash you hands promptly and thoroughly with soap and running water for at least 15 seconds after contact with blood or other fluids or substances – even if gloves or other barriers were used. Dry with disposable towels.**

Athletic trainers/Coaches

- **Always carry a first-aid kit containing disposable single use gloves, bandages and towelettes. To avoid other players contacting blood during an athletic event, remove an athlete with a bleeding injury from play immediately. The injured person should return to play only after the bleeding is stopped, the would is cleansed and covered and any blood-soaked clothes are changed.**

CLEAN-UP

- Wear rubber utility gloves to clean up blood or body fluid spills.
- Discard gloves if they are damaged in any way.
- Clean contaminated surfaces with a germicidal cleaning agent – or use a proper mix of bleach and water.
- Cover large spills of blood, vomit or urine with absorbent sweep material to prevent fluids from spreading. Then clean the area using standard procedures.
- Use fresh bleach solution to clean athletic equipment visibly contaminated with blood. Allow to dry before reusing.

Dispose of waste carefully

- **Use a study plastic bag to discard all blood-soaked bandages and cleaning materials. Seal the bag and place in a leakproof container where it will not be disturbed until picked up for disposal. Remember: Be alert for sharp objects when emptying trash containers. Never push trash down in waste receptacles. Instead, shake down trash bags carefully, seal and carry away from your body.**

If you are exposed to blood:

- **If blood or body fluids get in your eyes, immediately flush your eyes with running water for at least 15 seconds at a sink or eyewash fountain.**
- **If mucous membranes are contacted by blood or body fluids, flush them with water immediately.**
- **Report the incident immediately to your school nurse.**
- **Wash the blood or body fluid off immediately with non-abrasive soap and water.**

- By taking a few sensible precautions, you don’t have to worry about getting a bloodborne disease at school. By helping your students to understand the facts about these diseases, and by encouraging common sense rules about hygiene you can dispel their fears and give them a lesson to live by. Remember:

Handwashing is the single most important method of infection control there is!!!