

HUMAN IMMUNODEFICIENCY VIRUS/AIDS



DEFINITIONS:

Immune system: The immune system is the body's way of fighting infection and preventing illness. White blood cells are the immune system's primary infection fighters. Three special cells are especially important: Helper T-cells, Killer T-cells, and B-cells.

When a virus enters the blood, the immune system recognizes the invader and the white blood cells rush to fight it. Helper T-cells call upon Killer T-cells to destroy the virus by devouring and digesting it. Helper T-cells also call upon B-cells to make antibodies against the virus. These antibodies, in turn, block the virus so that it cannot infect healthy cells.

Human Immunodeficiency Virus (HIV): HIV is different from other viruses like the flu and colds. When HIV gets into the blood, it enters Helper T-cells and hides inside them. As the result, the infected Helper T-cells are unable to work as they should. For example, they no longer can call Killer T-cells to destroy the virus.

After the virus has been hidden in the T-cells for a while, which could last from a few months up to 10 years, it begins to make copies of itself. Some of these copies infect other T-cells. Eventually, HIV may destroy almost all the Helper T-cells. Up until this point, there may be no symptoms of infections or diseases. With no immune response from the body, however, it becomes easy for other infections to cause illness.

TRANSMISSION OF HIV/AIDS OCCURS:

- By having unprotected sexual contact with someone who has the virus.
- By sharing needles or syringes with someone who has the virus.
- By receiving blood transfusion or transplants of tissue or organs donated by someone with the virus.
- By getting HIV-infected blood, semen, breast milk or vaginal secretions into open wounds or sores.
- By having artificial insemination with the sperm of a man who has the virus.
- By being punctured or cut with a needle or surgical instrument contaminated with the virus.

AIDS IS NOT TRANSMITTED BY:

- Competing in sports
- Coming in contact with sweat
- Having causal contact, such as handshaking or hugging

- Living with someone who has AIDS and sharing utensils, towels, and toilets
- Kissing
- Swimming in a pool with someone who has AIDS

SYMPTOMS:

Stages of Acquired HIV/AIDS Progression

Stage 1: HIV infection

- A symptom-free condition lasting several years

Stage 2: HIV disease

- Chronic diarrhea
- Severe weight loss
- Nonproductive coughs with shortness of breath, swollen lymph nodes
- Fevers of unknown origin
- Chronic fatigue
- Skin rashes
- Increased susceptibility to infections

Stage 3: AIDS

- Required hospitalization and complete bed rest

Patterns of Congenital HIV/AIDS

- Pattern 1: which includes about 50% of infants born with HIV, is a symptom-free status. These infants test seropositive until about 2 years old because of antibodies passed on by their mother.
- Pattern 2: the static form of congenital HIV, includes infants who appear healthy until age 6 to 9 months, then exhibit disease symptoms for a short period, and thereafter have a relatively long period of freedom from illness before the AIDS stage begins. About 60% of these children will survive until age 5.
- Pattern 3: the progressive form of congenital HIV, is similar to pattern 2, except that, once illness begins, health rapidly deteriorates; the mean survival time is 8 months.

IMPLICATION FOR PHYSICAL EDUCATION

- Practice approved first-aid procedures with injuries in which blood is a factor (such as using gloves when treating broken-skin injuries or nose bleeds).
- Follow preestablished plan for handling body fluid waste and clean up on mats and gym floors.
- Plan rest periods.
- Provide adequate but not overtaxing physical activities.

- Avoid close contact with child who has cold or communicable disease.
- Consult with physician for contraindicated activities.
- Have students avoid contact with the body fluids of others.
- Encourage thorough laundering of uniforms and other clothing that may have been contaminated in play or instructional activity sessions.
- Be aware of the physical limitations of the students with HIV so that conditioning and other activities required strength and cardiovascular endurance are designed appropriate to their tolerance and ability levels.
- Use information about current status of confidentiality laws.
- Model an attitude of acceptance.

Information on this sheet contains only suggested guidelines. Each student must be considered individually, and in many cases, a physician's written consent should be obtained.