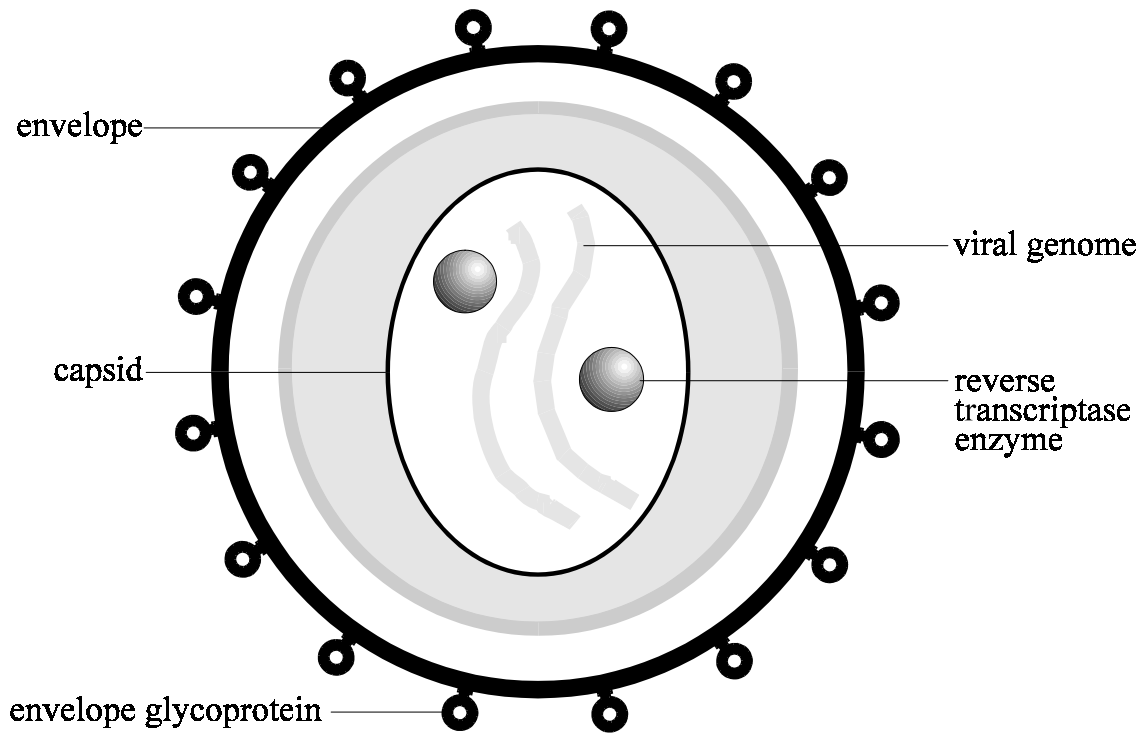


# The One-Hour AIDS Course



## **The One-Hour AIDS Course Special Edition**

**This course was designed to meet the basic  
Florida HIV/AIDS requirement.  
This course is also accepted for 1-CEU by**

NCBTMB (Category A provider—025820-00), AMTA, ABMP, Delaware Board of Massage, New Hampshire Health Facilities Administration, New Mexico Board of Massage, Tennessee Massage Licensure Board, Washington State Board of Massage. Some states such as Arkansas approve any course accepted by the NCBTMB, AMTA, or ABMP. Please call 888-547-9594 for an updated list of our latest approvals.

Copyright, David H. Leflet, 1995, Revised 2005  
All rights reserved

**HEMME APPROACH PUBLICATIONS**  
3334 Spring Valley Lane  
Bonifay, Florida 32425

For information, please call toll-free 888-547-9594  
To send a fax, please use 850-547-5533  
Our web site is [www.hemmeapproach.com](http://www.hemmeapproach.com)

The author grants permission to photocopy limited portions of this manual for personal use. Beyond this consent, no portion of this manual may be copied or reproduced in any form without written permission from the author.

Although the author has made every effort to ensure the accuracy of the information herein, science is progressive and theories change with time. Readers are advised to consult appropriate information sources, such as physicians or attorneys, if they have any questions concerning the information or principles presented in this manual.

Practitioners are responsible for determining the appropriateness of any principle or technique in terms of personal competency and scope of practice. Written medical opinions are the best way to resolve any questions concerning conditions that indicate or contraindicate soft-tissue therapy, and written legal opinions are the best way to resolve any questions concerning the law.

## INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS) is a worldwide epidemic that cannot and should not be ignored. Sometimes referred to as the “first great pandemic of the second half of the twentieth century,” AIDS has been reported in at least 138 countries. The virus responsible for causing AIDS is called the *human immunodeficiency virus* (HIV).

Most health authorities seem to agree the situation will get far worse before it gets better. As the disease continues to spread, new information concerning methods of transmission, universal precautions, methods of treatment, and the nature of the AIDS virus should be expected.

As research on HIV moves forward, there is reason for both optimism and skepticism. On one hand, both VaxGen, Inc. and the National Institutes of Health are working on vaccines to prevent AIDS. On the other hand, many researchers believe that the best any of these vaccines can hope for is only partial protection against AIDS. Although combination antiretroviral therapy with drugs such as indinavir, zidovudine, and lamivudine can suppress HIV replication, the duration of HIV suppression varies among patients. Patients with advanced HIV disease and a high viral load are often less responsive to combination therapy than patients with a low viral load. Though antiretroviral therapy has reduced the incidence of AIDS-associated opportunistic infections and increased the life expectancy of HIV-infected patients, antiretroviral therapy has not been able to cure HIV infections.

### Education

In the absence of natural immunities, vaccines, or cures, education is the best weapon we have to combat the spread of AIDS. We have all the knowledge we need for most people to protect themselves from HIV. AIDS is normally caused by what you do or don't do to yourself, not by what someone else does to you. By learning what you need to know and using the information wisely, you can make the risk of HIV infection very small.

## AIDS

In the battle against AIDS, viruses are the enemy soldiers and white blood cells (leukocytes) are the main targets. Viruses are any members of a unique class of infectious parasitic agents that cannot reproduce outside of a living host cell. Since the human immunodeficiency virus does not contain the biomechanical mechanism it needs for its own replication, it reproduces by using the proteins and mechanisms found in human cells.

Like the common influenza virus, HIV can change its genetic structure through natural mutation. Since the body's immune responses to HIV are based on recognizing surface antigens on the virus, changes in antigenic structure because of mutation make HIV difficult for the body to recognize.

People testing positive (seropositive) for HIV are not diagnosed with AIDS until they present clinical signs of HIV-related illness. The period between primary infection and diagnosed AIDS is sometimes referred to as a *clinically latent period*. About 20 percent of the people with HIV show no signs of HIV infection after 10 years, while others progress rapidly into full-blown AIDS. Despite the so-called latent period, when patients are seropositive but asymptomatic, the virus is probably replicating in the lymph nodes and continuing to kill T-helper lymphocytes, even though the number lost may not be great enough to precipitate symptoms. When symptoms do occur, clinical findings typical of AIDS include:

<b>Clinical Signs of HIV-Related Illness</b>	
<b>1</b>	Opportunistic infections such as Pneumocystis carinii pneumonia (PCP)
<b>2</b>	Cancers characteristic of AIDS such as Kaposi's sarcoma (KS)
<b>3</b>	Nervous system abnormalities such as AIDS dementia complex (ADC)
<b>4</b>	Wasting that results in extreme loss of body weight (Wasting syndrome)

When laboratory testing is not available, major and minor clinical criteria can be used to diagnose a condition as AIDS. The major criteria used by the World Health Organization to recognize AIDS are (1) fever lasting longer than one month, (2) weight loss greater than ten percent of body weight, and (3) chronic diarrhea lasting longer than one month.

The minor criteria include itching (pruritic) dermatitis, herpes zoster, oropharyngeal candidiasis, chronic herpes simplex, or general disease of the lymph nodes. Although two major and one minor criteria can be used to diagnose a condition as AIDS, under the same guidelines, aggressive or diffuse Kaposi's sarcoma alone can also be used to recognize AIDS.

#### **CENTERS FOR DISEASE CONTROL (CDC)**

The Centers for Disease Control (CDC) published a new definition for AIDS which became effective on January 1, 1993. The definition of AIDS was expanded to include all persons who are HIV-seropositive with fewer than 200 T-helper lymphocytes per cubic millimeter of blood. The T-helper lymphocyte is also called a *CD4 cell*.

A normal CD4 cell count is 800-1200 cells per cubic millimeter of blood. A person is immunocompromised when the CD4 cell count falls below 500, and signs of disease may begin to show when the CD4 cell count falls below 250. A consistent CD4 cell count below 200 greatly increases the risk of opportunistic infections. This revision also adds three new indicators of the disease: (1) pulmonary tuberculosis, (2) recurrent pneumonia, and (3) invasive cervical cancer. The Centers for Disease Control surveillance list also includes:

- Candidiasis of bronchi, trachea, lungs, or esophagus
- Cervical cancer: invasive
- Encephalopathy: HIV-related
- Herpes simplex: chronic ulcer(s) with duration greater than 1 month
- Kaposi's Sarcoma
- Leukoencephalopathy: progressive and multifocal
- Lymphoma: immunoblastic, primary, or brain
- Pneumocystis carinii pneumonia
- Toxoplasmosis of the brain
- Wasting syndrome due to HIV

According to the CDC, an HIV-infected person with any of these indicators is diagnosed as having AIDS. Enlarging the definition made financial aid available to more HIV-infected people.

#### **HIV-RELATED ILLNESS**

Although most HIV-infected patients develop a mononucleosis-like illness within two or three weeks of acquiring the infection (Primary HIV infection), seroconversion may not occur for several weeks, and AIDS may not occur for several years. During the period between testing seropositive for HIV infection and developing full-blown AIDS, many patients present vague symptoms such as oral lesions, nonspecific rashes, fever, or fatigue.

As the HIV infection progresses, patients may experience enlarged lymph nodes (lymphadenopathy) in the neck and axillae; nonspecific upper respiratory symptoms; and occasional diarrhea. Oral candidiasis (thrush) and hairy tongue leukoplakia may also occur and be noticed during oral examinations. Thrush is the most common oral infection in AIDS patients.

As the immune system breaks down, outbreaks of herpes simplex are common and sometimes quite severe. Polymyositis, a disease characterized by edema, inflammation, and symmetrical muscle weakness will sometimes precede AIDS by several months.

HIV-infected patients diagnosed with AIDS present constitutional symptoms such as extreme weight loss (wasting syndrome), diarrhea, chronic fever, and lymphadenopathy. The most common sites for opportunistic infections in AIDS patients are the throat, esophagus, lungs, bowel, colon, blood stream, central nervous system, and eye.

The cancers that characterize AIDS are Kaposi's sarcoma and cancer of the lymphatics (lymphoma). Kaposi's sarcoma is a tumor on the walls of blood vessels that affects the skin, mouth, respiratory tract, and digestive tract. Lymphomas are relatively common in AIDS patients and often affect the brain. Kaposi's sarcoma (KS) and Pneumocystis carinii pneumonia (PCP) are the two most common HIV-related opportunistic infections.

Pulmonary infections can be deadly for AIDS patients. Pneumocystis carinii pneumonia (PCP) and tuberculosis (TB) are the two main diseases that affect the lungs. Caused by a protozoan or yeastlike fungus, PCP is considered the most serious opportunistic illness in AIDS patients and occurs in about 50% of all cases. If not treated, PCP may cause death.

## HIGH-RISK BEHAVIORS

Although AIDS does not discriminate against any group based on sex, race, religion, or social status, certain groups display behaviors that increase the risk of contagion and make it easier for the virus to spread. At least four broadly defined groups often display high-risk behaviors.

<b>High-Risk Groups</b>	
<b>1</b>	Gay men
<b>2</b>	Intravenous drug users
<b>3</b>	Prostitutes of either sex
<b>4</b>	Hemophiliacs (transfusions)

Gay males appear to be at risk because of a tendency toward frequent sexual intercourse with multiple partners and a preference for anal sex. About 57% of the adults with AIDS are gay males. Intravenous drug users increase the risk of AIDS by sharing needles and syringes infected with HIV. About 29% of the adults with AIDS are intravenous drug users.

Prostitutes are considered at risk because of many different partners and varied sexual habits, which may include anal intercourse or drugs. Hemophiliacs and other groups that receive blood transfusions on a regular basis are at risk because of infected blood supplies.

While these four groups are still considered to be at greater than normal risk because of high-risk behaviors, the AIDS virus is spreading progressively to other groups such as heterosexual populations. As education and changes in lifestyle slow the spread of AIDS among gay males, lack of education or refusal to change sexual habits can be expected to increase the spread of AIDS among heterosexual males and females.

Although not considered a rapidly growing group, some health care workers have contracted AIDS because of work-related duties. Many of these cases relate to needle-stick or direct exposure to HIV-infected body fluids. Physical, occupational, and massage therapists are considered at very low risk if they follow basic guidelines that relate to HIV prevention such as the use of protective barriers and personal cleanliness.

## **PREVENTION**

Researchers estimate that 95% of all HIV infections occur because of high-risk behavior. By using preventive measures to block transmission, many of these infections could be avoided.

Even though the ability to transmit or resist HIV can vary from person to person, all HIV-positive people are capable of spreading the disease and all noninfected people are capable of acquiring the disease. Natural immunities to AIDS do not seem to exist. This is the bad news.

The good news is that AIDS is manageable. For members of the general public who are not involved in high-risk behaviors, the chances for becoming HIV-infected are roughly the same as the chances for winning the lottery or being struck by lightning. For most health care workers who follow universal precautions, the chances are about the same.

### **SEXUAL TRANSMISSION**

Gay males are the group most affected by AIDS because of receiving HIV-infected semen. Tears in the mucous lining of the anal canal during anal sex or breaks in the oral mucosa during oral sex will greatly increase the risk of being contaminated by HIV-infected semen. The mucous lining of the anal canal is more delicate and more prone to tearing than mucous membranes that line the mouth, lips, or vagina.

Besides a possible preference for anal sex, other behaviors that increase the risk of AIDS for many gay males include (1) the high frequency of sexual encounters, and (2) many different partners. Intravenous drug use and the use of steroids are two more high-risk activities that are not uncommon among gay males.

Prostitution is considered a risk behavior for several reasons: (1) the high frequency of sexual encounters, (2) many different partners, (3) the chances of contracting sexually transmitted diseases (STD) that cause lesions, and (4) intravenous drug usage that is often associated with prostitution. These factors apply to both male and female prostitutes. In Kenya, some groups of prostitutes have infection rates as high as 88%.

Besides genital-to-genital contact, HIV-infected body fluids can be transmitted on the hands or other body parts to portals of entry on the host. Though mutual masturbation is far less dangerous than vaginal sex, open lesions or breaks in the skin can increase the risk of AIDS. The safest sex is monogamous sex with a noninfected partner or self-stimulation.

Heterosexual sex accounts for about 6% of all AIDS cases. Though 6% is a relatively small percentage, this category is increasing faster than any other category. Although not a high-risk group, heterosexuals need to become more involved in "safe sex" and avoid high-risk behaviors such as intravenous drug usage and promiscuity.

Properly used with a spermicide containing Nonoxynol-9, a male *latex* condom or a female *polyurethane* condom, such as the Reality Vaginal Pouch, can greatly reduce the risk of AIDS. The spermicide Nonoxynol-9 kills HIV outside the body. Even though condoms can be used safely with a water-based lubricant such as K-Y Jelly, petroleum-based lubricants such as Vaseline may damage the latex. Male condoms should be pulled off inside-out from the bottom to avoid contact with vaginal secretions.

Heterosexual females can acquire the AIDS virus from HIV-infected semen just as heterosexual males can acquire the AIDS virus from HIV-infected vaginal secretions. Breaks in the mucous membrane of the vagina or breaks in the skin of the penis will increase the risk of infection.

Sexually transmitted diseases that cause ulcerations or lesions such as syphilis or chancroid and "rough sex" that abrades skin or mucous membranes can increase the risk of contamination. Menstruation increases the risk of HIV transmission during vaginal sex. Though AIDS can be transmitted in either direction, male to female or female to male, males transmit the AIDS virus more efficiently to females than vice versa.

#### **PARENTERAL TRANSMISSION**

Parenteral transmission refers to HIV transmission by intravenous, subcutaneous, intramuscular, intraorbital, or mucosal routes. Parenteral transmission includes intravenous drugs, blood transfusions, and organ transplants.

Intravenous drug use is clearly a high-risk behavior. Even without considering the dangers of using intravenous drugs, the risk because of AIDS is well documented and significant. Sharing needles or syringes increases the risk of blood-to-blood transfer. Even procedures such as soaking needles and syringes in a 10% solution of household bleach (5.25% sodium hypochlorite) may not be sufficient to kill the AIDS virus. Bleach can even cause infected blood to clot, which makes it more resistant to disinfectants because of its pelletized condition.

Although bleach is still considered a better disinfectant than alcohol or hydrogen peroxide, needles and syringes should be cleaned in full-strength bleach, not 10% bleach. Where full-strength bleach can effectively inactivate pelletized HIV within 30 seconds of exposure, 10% bleach requires at least 2 hours of exposure. After soaking in bleach for at least 30 seconds, needles and syringes should be washed several times in clean water. Washing drug implements in clean water before scrubbing and soaking in bleach and then washing again afterward in fresh water will decrease the risk of HIV infection even more.

Other ways to reduce the risk of HIV infection are (1) boiling needles and syringes for at least 15 minutes, or (2) not re-using needles and syringes. Care should also be taken to avoid contamination from infected cotton-balls, cookers, or other drug paraphernalia.

Besides infected blood transmitted during sexual intercourse or intravenous drug use, there is also the risk of receiving HIV-infected blood during transfusions. Even if blood supplies are much safer now than in the past, there is still a small risk of receiving contaminated blood.

Blood banks are also using heat treatments and monoclonal absorption to clean blood products. These methods appear to be very effective. Since 1985, heat treatments have eliminated clotting or coagulation factor as an HIV risk for hemophiliacs.

Parenteral transmission of HIV infection because of artificial insemination or transplanted organs or tissues such as kidney, liver, heart, pancreas, and bone have been reported. Despite reports of a few new cases, the risk has been greatly reduced because of donor screening procedures.

## PERINATAL TRANSMISSION

Children are the fastest growing group of reported AIDS patients. This number is rapidly increasing because of HIV-infected mothers. Most children acquire AIDS perinatally, which means before, during, or shortly after birth. The perinatal period is often defined as beginning after the 28th week of pregnancy and ending the 7th or 28th day after birth. Perinatal transmission can occur (1) within the uterus, (2) across the placenta, (3) via exposure to HIV-infected body fluids such as maternal blood or vaginal secretions, and (4) by consumption of HIV-infected breast milk.

Most of these cases are related to intravenous drug use, although some children have contracted AIDS because of contaminated blood transfusions. About 30% of the infants born to HIV-infected mothers become infected. Because HIV-infected mothers can be asymptomatic when the child is born, having the child diagnosed as HIV-infected can be the first time the mother learns about her own infection.

## SUMMARY OF HIV TRANSMISSION

Blood, semen, vaginal secretions, and breast milk are the only four body fluids documented and proven to be HIV transmitters. These four body fluids are transmitted in three basic ways.

- ❶ Sexual Transmission: HIV transmission by anal, oral, or vaginal sex.
- ❷ Parenteral Transmission: HIV transmission by intravenous drug use, blood transfusions, organ transplants, needle-stick, blood splatter, blood spills, or contact with an open wound.
- ❸ Perinatal Transmission: HIV transmission within the uterus, across the placenta, or via exposure to HIV-infected body fluids such as maternal blood, vaginal secretions, or breast milk.

## **UNIVERSAL PRECAUTIONS**

Prevention starts by following the six basic universal precautions against any body fluids that are capable of transmitting the AIDS virus. The three main body fluids that transmit the AIDS virus are semen, vaginal secretions, and blood. Having been implicated in several cases of pediatric AIDS, breast milk is now considered infectious.

Universal precautions are designed to protect health care workers from infectious diseases that are transmitted by direct contact with body fluids. When universal precautions are used, additional procedures to protect against hepatitis-B are not required.

Although risk has not been documented, other body fluids thought to be infectious are cerebrospinal, synovial, pleural, peritoneal, pericardial, amniotic, and purulent fluids. While saliva, tears, sweat, nasal secretions, urine, and feces are potentially capable of transmitting HIV, the risk appears to be very small and universal precautions because of HIV are not required unless high-risk body fluids are also present. This is not to say that universal precautions should not be followed since parasites, hepatitis, and other diseases can be transmitted by body fluids that are not HIV-infected. The safest approach is treating all body fluids as potentially infectious.

### **SIX BASIC UNIVERSAL PRECAUTIONS**

- 1.** Protective barriers such as gloves, masks, protective face shields or eyeglasses, and aprons or gowns should always be worn to protect against contamination from infectious body fluids. Materials such as latex and vinyl make effective barriers against HIV.
- 2.** Body parts and mucous membranes should be washed and disinfected immediately if thought to be contaminated by infectious body fluids.
- 3.** Needles and other sharp instruments should be handled carefully. Needles should not be recapped or manipulated by hand. After use, needles should be placed in puncture-resistant containers for disposal.

4. Ventilation devices should be used in place of mouth-to-mouth resuscitation. Though saliva is thought to be a low-risk body fluid, contamination by infected blood is always possible.
5. Health care workers with weeping lesions or breaks in the skin should avoid making direct contact with patients until the openings are healed.
6. Because of risks to the fetus, pregnant women should be extremely careful to avoid contamination and especially careful to follow universal precautions.

The proper use of gloves decreases the risk of HIV-infection by 10,000-fold. One glove can be worn over the top of another glove for greater safety. Heavy work gloves worn over the top of latex or vinyl gloves will decrease the risk of penetration and help to absorb contaminated fluids by acting as a sponge. Gloves should be removed by pulling at the cuffs and rolling them off the hands inside out. After removing gloves, the hands should be carefully washed with antiseptic soap.

Although not always popular, a soft-tissue therapist may need to consider using examination gloves when evaluating patients. Not only do these gloves protect the therapist, but they also protect the patient from accidental infection. Many clinics will not allow anyone who is not wearing gloves to make physical contact with a patient.

Gloves should always be worn if practitioners have chapped, cut, or broken skin on the hands. If patients have breaks in the skin, lesions, ulcerations, or rashes, gloves should be worn by anyone making contact with these areas. A therapist should always get clearance from a doctor before working on patients with openings in the skin. In the state of Florida, lesions, ulcerations, inflammatory skin conditions, and skin eruptions contraindicate soft-tissue therapy without a doctor's prescription.

Gloves should not be washed and reused. Studies have shown that certain microorganisms are not easily removed from gloves by washing, disinfectants, or drying. Universal precautions do not require the use of gloves or other protective barriers when potentially infectious body fluids are not involved.

If a patient's body fluids make contact with unprotected skin, wash immediately and disinfect with antiseptic wipes or bacteriostatic cleaners. The best disinfectants for the hands are 70% alcohol or povidone iodine (Betadine). A good liquid soap should contain chemicals like 4% chlorhexidine gluconate or 3% parachlorometaxlenol. Mucous membranes can be irrigated and rinsed with sterile water or saline solution. Nasal mucosa is more permeable to HIV than oral mucosa.

If potentially infectious materials make contact with an open wound, immediately wash the affected area with soap and water, squeeze the wound to encourage controlled bleeding, and apply disinfectant. Preexisting open wounds should always be covered by protective dressings to reduce the risk of exposure. Any break in the skin increases the risk of HIV transmission.

Any disinfectant used for decontaminating infectious material should be listed with the Environmental Protection Agency (EPA) as bactericidal, fungicidal, or virucidal. Lysol is EPA approved as a virucide for HIV. Drying (desiccation) and full-strength bleach are two of the most effective ways to kill HIV outside the body. The same methods that kill HIV will also kill HBV (hepatitis B virus).

#### AIDS AWARENESS

There are twenty basic points that everyone should be aware of. The first ten points are the ten warning signs that *may* indicate the presence of an HIV infection. If any of these signs are present, speak to a doctor.

- ① Persistent low-grade fever
- ② Chronic fatigue
- ③ Lymph glands that remain swollen for several weeks
- ④ Night sweats that occur without fever
- ⑤ Unexplained weight loss of more than ten pounds
- ⑥ Persistent diarrhea

- ⑦ Skin rashes that remain constant or spread
- ⑧ Lesions of the mouth
- ⑨ Continuous genital infections
- ⑩ Upper respiratory problems

The next ten points provide basic information concerning HIV:

- ① Most HIV infections are transmitted during unprotected sex or by sharing needles or syringes during intravenous drug use.
- ② With no weeping lesions or breaks in the skin, HIV cannot be spread through casual contact such as shaking hands, dancing, or hugging.
- ③ The only body fluids documented as HIV transmitters are blood, semen, vaginal secretions, and breast milk.
- ④ Decreasing the frequency of sexual contacts with different partners will decrease the risk of AIDS.
- ⑤ Use a spermicide and a water-based lubricant with a male latex condom or a female polyurethane condom to *reduce* the risk of HIV infection.
- ⑥ A dental dam will decrease the risk of HIV infection during oral sex.
- ⑦ Do not share objects capable of transmitting blood-borne HIV such as needles, syringes, razors, or toothbrushes.
- ⑧ Anal receptive sex is a higher risk behavior than anal "insertive" sex, vaginal sex, or oral sex.
- ⑨ Drug paraphernalia should be pre-washed in clean water, scrubbed in full-strength bleach for at least 30 seconds, and then rinsed several times in clean water.
- ⑩ Get regular physical examinations.

## GLOSSARY

**Acquired Immune Deficiency Syndrome** An immune system disorder caused by the Human Immunodeficiency Virus (HIV). A person is diagnosed with AIDS after (1) becoming HIV-infected and (2) presenting signs or symptoms characteristic of AIDS such as Kaposi's sarcoma or Pneumocystis carinii pneumonia.

**AIDS** Acronym for Acquired Immune Deficiency Syndrome.

**CD4** The antigen on the surface of T-helper lymphocyte cells (CD4 cells), that HIV bind to before entering the cell.

**dental dam** A thin sheet of latex rubber used in dentistry to isolate teeth from fluids in the mouth.

**hemophilia** A hereditary blood disease characterized by abnormal bleeding due to defective coagulation.

**HIV** Abbreviation for human immunodeficiency virus.

**incubation** The time period between exposure to infection and the appearance of the first signs or symptoms.

**latent** State of being concealed, hidden, or inactive.

**opportunistic infections** Diseases that occur when the body's resistance to infection is low.

**pandemic** A disease affecting the majority of a population in a large geographic region.

**spermicide** A substance that kills spermatozoa.

**virus** A minute infectious agent that lacks independent metabolism and reproduces by entering a living cell. As the smallest disease-producing microorganism, a virus can pass through filters that retain most bacteria.

## THE AIDS QUIZ

1. People with HIV infections are diagnosed with AIDS if they present:
  - a. Pneumocystis carinii pneumonia (PCP)
  - b. Kaposi's sarcoma (KS)
  - c. AIDS dementia complex (ADC)
  - d. any of the above
  
2. Which disease is considered the most serious opportunistic infection?
  - a. Pneumocystis carinii pneumonia (PCP)
  - b. tuberculosis (TB)
  - c. oral candidiasis (thrush)
  - d. hairy leukoplakia
  
3. The mucous lining of which structure is most prone to tearing?
  - a. anal canal
  - b. mouth
  - c. lips
  - d. vagina
  
4. Which choice is **not** recommended when using condoms for *safe sex*?
  - a. petroleum-based lubricants such as Vaseline
  - b. water-based lubricants such as K-Y Jelly
  - c. Nonoxynol-9 spermicide
  - d. latex construction for male condoms
  
5. Intravenous, subcutaneous, and mucosal transmission of HIV is called:
  - a. sexual transmission
  - b. parenteral transmission
  - c. perinatal transmission
  - d. none of the above

6. Which body fluid is **not** likely to transmit HIV?
- blood
  - saliva
  - semen
  - vaginal secretions
7. Which universal precaution decreases the risk of HIV infection 10,000-fold?
- aprons
  - gloves
  - masks
  - eyeglasses
8. Which of the following is a possible warning sign for HIV infection?
- persistent low-grade fever
  - unexplained weight loss of more than ten pounds
  - lesions of the mouth
  - all of the above
9. Which statement is **false**?
- Most HIV infections are transmitted during unprotected sex or by sharing needles or syringes during intravenous drug use.
  - Even with no weeping lesions or breaks in the skin, HIV can be spread through casual contact such as shaking hands.
  - Sharing objects such as razors or toothbrushes can transmit HIV.
  - Drug paraphernalia should be washed in water, scrubbed in full-strength bleach for at least 30 seconds, and then rinsed in water.
10. Which statement is **true**?
- Latex condoms guarantee complete protection against AIDS.
  - The HIV risk for oral sex and vaginal sex is higher than for anal sex.
  - Increasing the frequency of different sexual partners does not increase the risk of AIDS.
  - Lesions or breaks in the skin increase the risk of HIV transmission.



## INSTRUCTIONS FOR THE ANSWER SHEET

For LMTs who would like to receive credit for this course, please complete the answer sheet and return it to us with a \$12.00 check in US dollars made payable to **HEMME Approach**, and please add sales tax if you live in Florida. If you would like to pay by phone, our toll-free number is 1-888-547-9594. We take MasterCard, Visa, and American Express. If you pay by phone, you can also fax the answer sheet to us. Our fax is 1-850-547-5533.

Passing is 70% or above. Proof of completion certificates are mailed out within one working day of when the answer sheet and the check arrive.

<b>HIV/AIDS ANSWER SHEET FOR LMTs</b>		
<b>PLEASE PRINT</b>		
Name		
Address		
City	State	Zip
Telephone number (      )		
License #		

<b>PLEASE CIRCLE THE <i>BEST</i> ANSWER.</b>										
<b>1.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>6.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	Accepted by Florida (50-924), NCBTMB (Category A-025820-00), AMTA, ABMP, Alabama, New Mexico, Nebraska, Tennessee, Washington, New Hampshire, Oregon, N. Dakota, S. Carolina, Delaware, and others.
<b>2.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>7.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	
<b>3.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>8.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	
<b>4.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>9.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	
<b>5</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>10.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	

HEMME APPROACH PUBLICATIONS  
3334 Spring Valley Lane—Bonifay, FL 32425  
Toll-Free 888-547-9594—web site: [www.hemmeapproach.com](http://www.hemmeapproach.com)