Basic Presentation
HIV/AIDS

For Use by Students, Teachers and the Public Seeking Basic Information About HIV/AIDS
Objectives-

- Define and understand the difference between HIV Infection and AIDS
- Describe the progression of HIV from initial infection to disease
- Understand the modes of transmission of HIV
- Describe ways to prevent HIV infection
- Discuss issues relating to HIV testing
Objectives - continued

- Describe issues relating to the treatment of HIV infection and AIDS
- Discuss the legal and psychological impact of HIV/AIDS
- Know where to find current statistics and additional resources about HIV/AIDS
Definitions

- HIV - The acronym for Human Immunodeficiency Virus.
  - This virus causes HIV infection and AIDS
  - The HIV infected person may, or may not have AIDS.
  - They may, or may not, have signs or symptoms of illness but are still infectious to others.
Signs/ symptoms of HIV Infection

- Usually – none
  - Early warning signs might include fever, skin rash, diarrhea, swollen glands, night sweats, fatigue, cough, oral problems, repeated vaginal infections, and/or weight loss.
  - (Remember, other illnesses can cause similar symptoms.)
Definitions

AIDS - The acronym for Acquired Immune Deficiency Syndrome.

AIDS is a disease which has the following elements:

- A confirmed positive test for HIV/AIDS.
- Immuno-compromised status (demonstrated by a low T cell count).
- The presence of either an opportunistic infection or AIDS related cancer.
The Clinical Syndrome - HIV

- Immune deficiency
- Opportunistic Infections
  - Pneumocystis Carini Pneumonia (PCP), / Cytomegalovirus / Herpes
- Malignancies
  - Kaposi’s Sarcoma (KS), / Lymphomas
- Neurological Deficits
  - Dementia
The Clinical Syndrome

- Plus UNEXPLAINED and CHRONIC
  - Weight loss
  - Fever
  - Night Sweats
  - Diarrhea
  - Fatigue
  - Adenopathy
From Infection to Disease (Pathophysicsiology)

- Infected body fluids are introduced into the body of an uninfected person.
- The HIV virus crosses into the T-4 White Cell (Immune Cells).
- The virus uses the genetic mechanisms of the cell to produce millions of new viruses.
- The cell dies and the new viruses are released into the blood to infect new un-infected cells.
- The T-4 are killed and the patient becomes immuno-deficient.
- The person becomes susceptible to opportunistic infections or AIDS related cancers.
Progression of HIV (4 stages)

Exposure Infection

3 Weeks to 3 months

HIV (+) AIDS (-) Asymptomatic 5-10 years

HIV (+) AIDS (-) Symptomatic 1-3 years

HIV (+) AIDS (+) 1-2 years
Transmission of HIV

-Concept-

- HIV is spread when an infected body fluid is introduced directly into the blood stream of a non-infected individual.
Examples of Modes of transmission

- Sexual
- Sharing IV equipment and drugs
- Perinatal (Mother to child at birth)
- Blood
- Health Care workers

Not by casual contact
The Risk of HIV Transmission is dependant on:

- The concentration of HIV in the infected fluid
- The QUANTITY of fluid introduced into the body
- The ACCESS of the infected fluid to the T4 cell
Fluids with HIGH Concentration of HIV (& HIGH risk of transmission)

- Semen
- Blood & Blood components
- Menstrual Flow
- Vaginal Secretions
- Pre-Ejaculatory Fluid
- Breast Milk
- Cerebral Spinal Fluid
Fluids with LOW Concentration of HIV
(& LOW risk of transmission)

- Pus
- Saliva
- Tears
- Urine
- Feces
- Vomit
- Nasal Mucous
PRESENCE OF HIV AND/OR SEX FLUIDS

METHOD OF TRANSMISSION

FREQUENCY OF EXPOSURE

BLOOD STREAM TO T-CELL

IMMUNE SYSTEM STATUS

VIRAL STRENGTH

VIRAL LOAD (AMOUNT)
Prevention - Abstinence

- Abstinence from all HIV related risky behaviors (such as sexual intercourse, sharing of IV needles, body piercing, or tattooing using non sterile needles, etc) is the only 100% effective way to prevent transmission of HIV.
Alternatives to risky behaviors

- Hugging
- Holding hands
- Going to the movies
- Touching your own body
- Outercourse
Ways to reduce risk

- **Universal Precautions** (all body fluids are treated as if they are infectious)
- **Safer Sex** (involves sexual activities that limit/reduce the exchange of potentially infected body fluids.)
- **Barrier Methods** (Use of condoms, latex gloves)
- **Spermicidces** (Now called “Microbicides”)
- **Avoidance of Alcohol/drug use**
- **Use Negotiation and Communication**
- **Resisting negative peer pressure**
Condom Considerations

- Always use latex or polyurethane
- (Animal skin condoms are porous!)
- Check the expiration date
- Check for a lot #
- Feel for an air pocket
- Use water based lubricants
- Never keep them in a wallet or purse for a long time
- Use microbicides or spermicides
Testing

- Types of tests
  - Blood/saliva/
  - Lab/home
  - Screening/confirmatory (Both must be positive for true infection)

- The Window Period – (the time between infection and when a person tests positive. During this time a person is infectious even though their tests are negative)
Why is testing important

1. Why should someone get tested?
   - Increases access to medical care
   - Protects others from getting HIV infected
   - Keeping the HIV infected person away from infectious diseases (Healthier lifestyle)
Treatment

- No cure exists
- Effective, complex, expensive drug treatments are available
- Maintenance of healthy lifestyle improves quality of life
- Psychological, family planning, economic, and social counseling are very important
Therapeutic Approach

- Counseling required
- Medications – Triple drug therapy most effective
- Vaccines – Not yet available
- Prevention is effective
- Drug Rehabilitation if needed
- Safer SEX & healthy lifestyle crucial
- Education about Risk Behaviors
Epidemiology of HIV

- Current statistics available on line

- Trends
  - Worldwide
  - National
  - Local

- See: www.flaaids.com
Worldwide trends:

- Massive numbers still being infected
- Large numbers dying in developing countries
- Disruption of family units and national economies
- Effective therapy not available in developing countries
- HIV/AIDS awareness increasing in more countries
- Governments starting to address the AIDS epidemic
National Trends

- Rates in youth are increasing
- Heterosexual transmission is increasing
- Rates of infection amongst minority females is increasing
- Effective treatments increasing life span of infected people
- Funding has remained constant or has decreased
- Effective treatments have caused an inappropriate decrease in the concern about HIV transmission
Local Trends (S. FLA.)

- People over 50 demonstrate double the national average for the number of new HIV cases reported
- Half of new HIV infections are 25 or younger
- Rates in youth, minority women, and heterosexuals reflect the national trends
- Special challenges exist in HIV education and prevention in the Deaf and Hard of Hearing population
- Rates of new HIV infection amongst minority populations is greater than their percentage in the general population
HIV infection has a major psychological impact on:

- The infected person
- The infected person’s family
- The infected person’s friends
- The economic status of affected persons
Examples of Psycho-Social Issues associated with HIV

- Isolation
- Denial
- Guilt
- Bereavement
- Anger
- Fear
- Confusion
Myths and misconceptions

You cannot get HIV if you:

- Stand up during sex
- Have unprotected oral sex
- Have sex for the first time
- Have sex with a virgin
- Are not gay/bisexual
- Do not have sex during a woman’s period
- If you douche/cleanout/pee after sex
- Do a little bit of sex and pull out
- Already have HIV or AIDS
- Do not have an orgasm
Legal Considerations:

- AIDS is a “disability” under ADA (Americans with Disabilities Act)
- The Following are mandated by law
  - Confidentiality of test results & HIV status
  - Reporting and follow up by Public Health Department
  - Criminal liability for knowingly transmitting infection

See: [www.onlinesunshine.org](http://www.onlinesunshine.org)  
[www.leg.state.fl.us/statutes](http://www.leg.state.fl.us/statutes)
HIV/AIDS 101

- What resources are available to help answer your questions?
For More Information:

- World Health Organization
- www.cdc.gov
- www.myflorida.org
- Health Department
- http://aidseducation.dadeschools.net
Do you have any questions?