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
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.)
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
Infected body fluids are introduced into the body of an un-infected 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 BLOOD 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)
- **Spermicides** (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 online
- 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
Psychological Aspects of HIV Infection

- 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)
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?