WELCOME DEAR

HIV R/T ABSTRACT

BY-AJEET MAHARIA



History and introduction:- The history should be carefully taken to elicit possible exposures to humanimmunodeficiency virus (HIV). Risk factors include the following:*.Unprotected sexual intercourse, especially receptive anal intercourse (8-fold higher risk of transmission)*.A large number of sexual partners*.Prior or current sexually transmitted diseases (STDs): Gonorrhea and chlamydia infections increase the HIV transmission risk 3-fold, syphilis raises the transmission risk 7-fold, and herpes genitalis raises the transmission risk up to 25-fold during an outbreak*.Sharing of intravenous drug paraphernalia*.Receipt of blood products (before 1985 in the United States)*.Mucosal contact with infected blood or needle-stick injuries*.Maternal HIV infection (for newborns, infants, and children): Steps taken to reduce the risk of transmission at birth include cesarean delivery and prenatal antiretroviral therapy in the mother and antiretroviral therapy in the newborn immediately after birth.The patient may present with signs and symptoms of any of the stages of HIV infection. Acute seroconversion manifests as a flulikeillness, consisting of fever, malaise, and a generalized rash. The asymptomatic phase is generally benign. Generalized lymphadenopathy is common and may be a presenting

symptom.AIDS manifests as recurrent, severe, and occasionally life-threatening infections and/or opportunistic malignancies. The signs and symptoms are those of the presenting illness, meaning that HIV infection should be suspected as an underlying illness when unusual infections present in apparently healthy individuals.HIV infection itself does cause some sequelae, including AIDS-associated dementia/ encephalopathy and HIV wasting syndrome (chronic diarrhea and weight loss with no identifiable cause).

9:07 AM

Physical Examination:-

No physical findings are specific to HIV infection. The physical findings are those of the presenting infection or illness. Generalized lymphadenopathy is common. Weight loss may be apparent.Evidence for risk factors or minor concurrent opportunistic infections (eg, herpetic lesions on the groin, widespread oral candidiasis) may be clues to HIV infection.

9:07 AM

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.

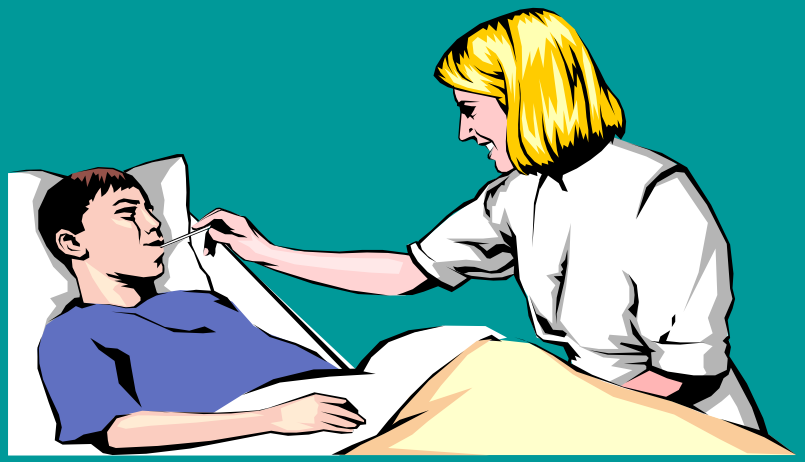
Signs/ symptoms of HIV Infection

- 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

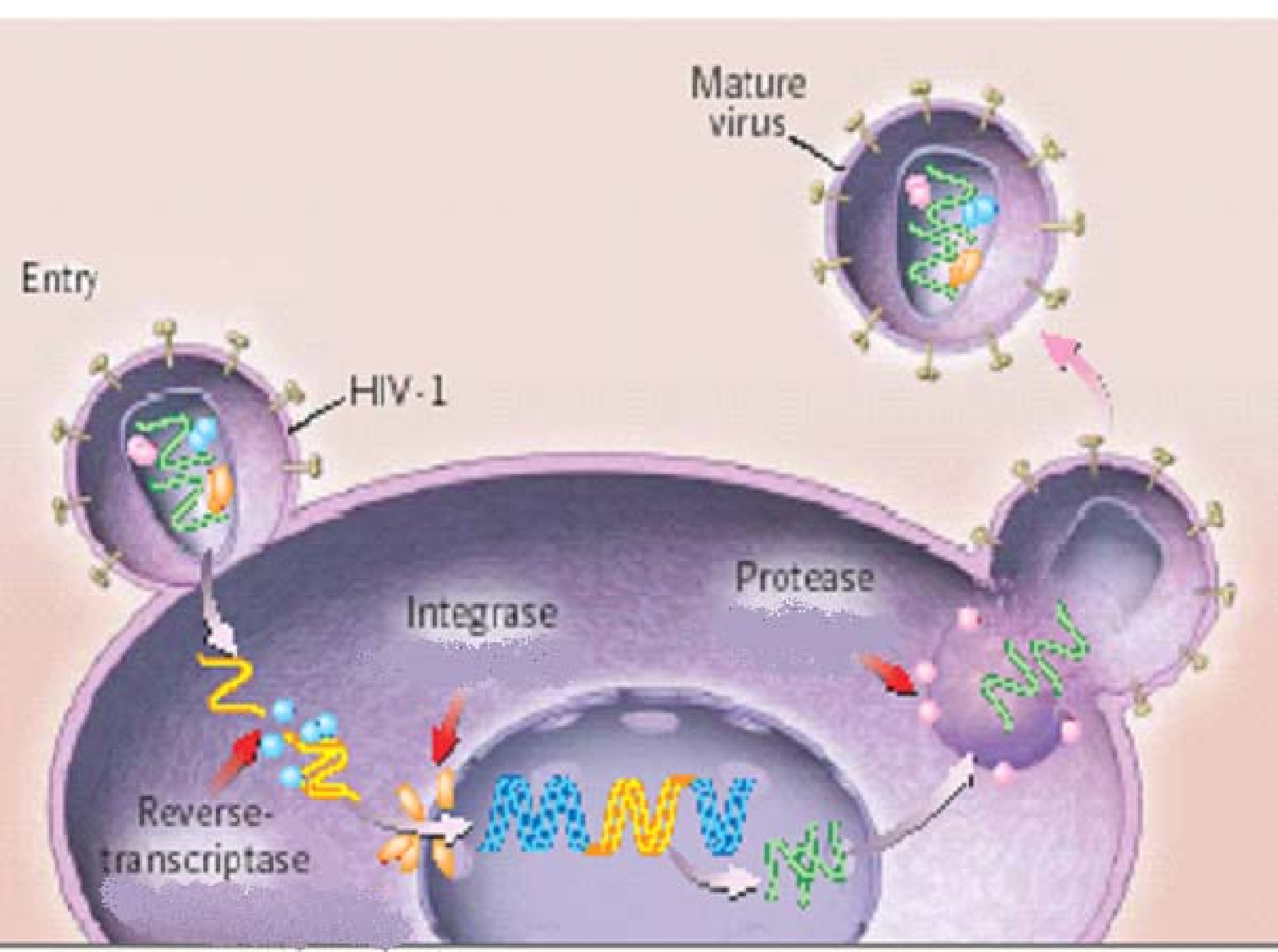
The Clinical Syndrome



- Plus UNEXPLAINED and CHRONIC
  - Weight loss
  - Fever
  - Night Sweats
  - Diarrhea
  - Fatigue
  - Adenopathy

From Infection to Disease (Pathophysiology)

- 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.

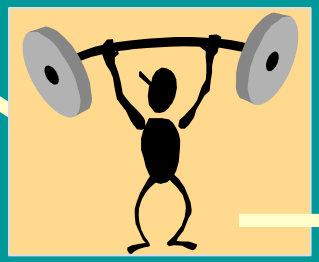

Mature virus
Entry
HIV-1
Protease
Integrase
Reverse-transcriptase

Progression of HIV (4 stages)

Exposure
Infection



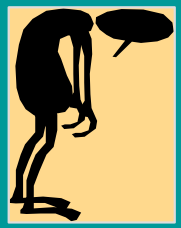
3 Weeks
to 3 months



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:

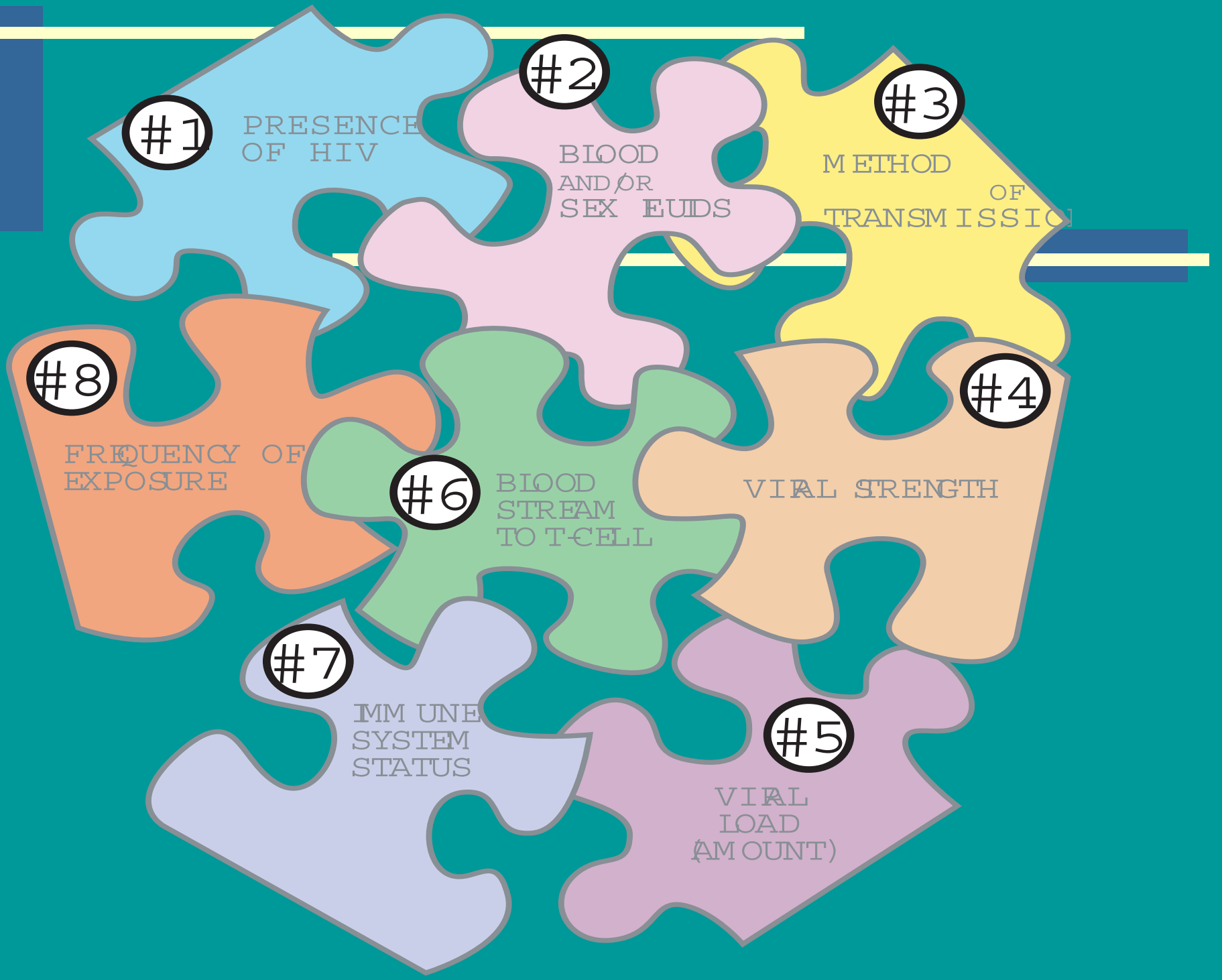
- The concentration of HIV in the infected fluid
- The QUANTITY of fluid introduced into the body
- The ACCESS of the infected fluid to the T4 cell

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


#1
PRESENCE OF HIV
#2
BLOOD AND/OR SEX FLUIDS
#3
METHOD OF TRANSMISSION
#4
VIRAL STRENGTH
#5
VIRAL LOAD (AMOUNT)
#6
BLOOD STREAM TO T-CELL
#7
IMMUNE SYSTEM STATUS
#8
FREQUENCY OF EXPOSURE

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 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

Psychological Aspects of HIV Infection

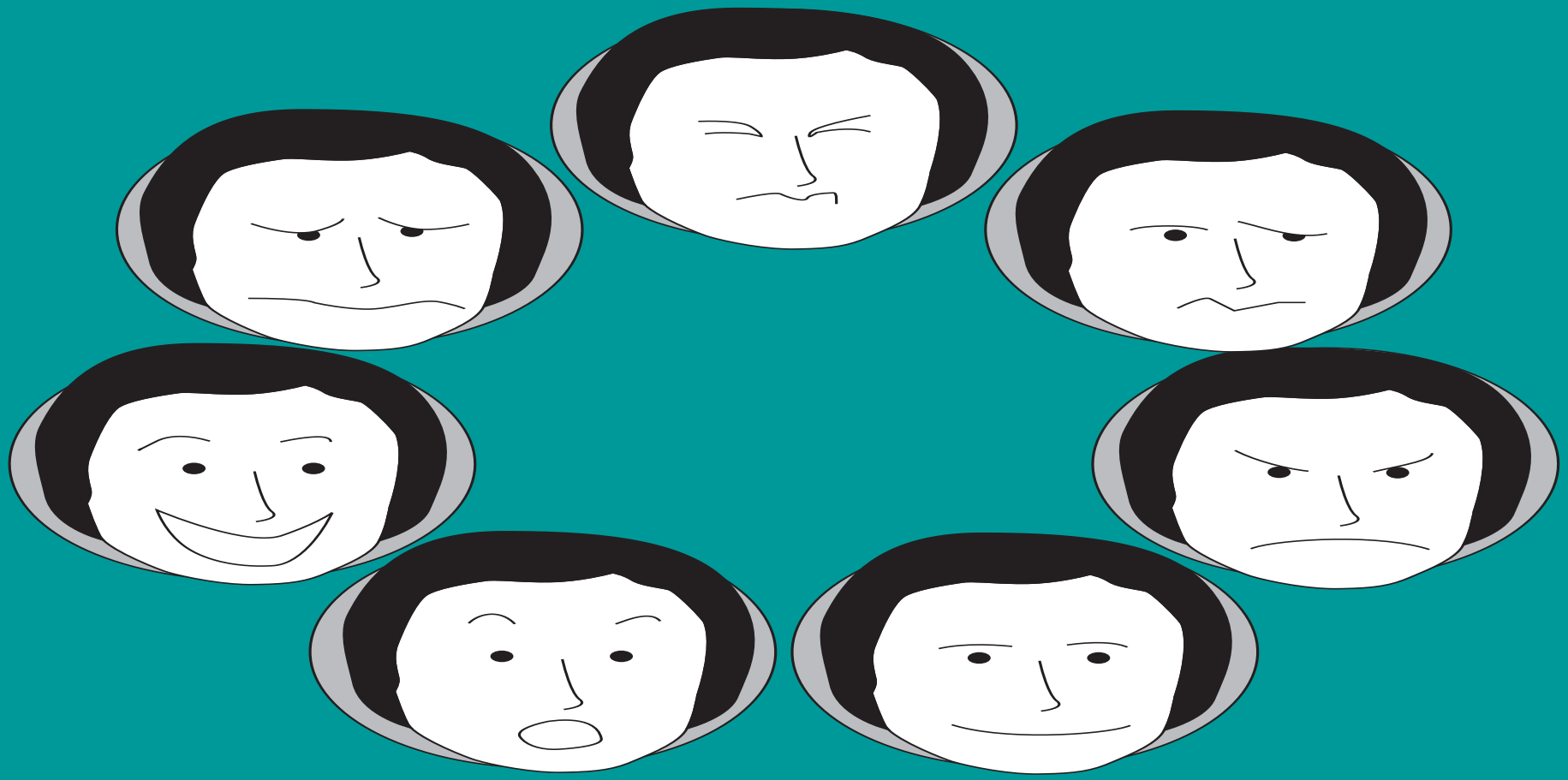
- HIV infection has a major psychological impact on:
  - The infected person
  - The infected person's family
  - The infected person's friends
  - The economic status of affected persons

Examples of Psycho-Social Issues associated with HIV

- Isolation
- Denial
- Guilt
- Bereavement
- Anger
- Fear
- Confusion

HIV/AIDS

COMMON FEELINGS



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

THANKS DEAR