



*Where Health Knows No Borders*

# HIV

## HIV Prevention Program

# HIV

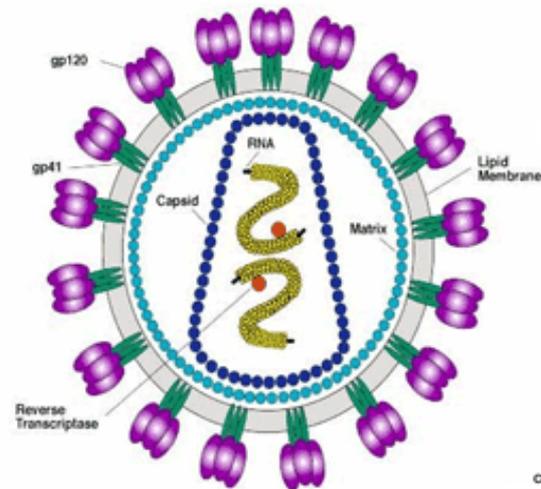
- What is HIV?
- How does HIV affect the body?
- How is HIV Spread?
- HIV Tests
- How can HIV be prevented?
- HIV in El Paso Texas
- Where can I get tested?

# What is HIV?

## *Definition*

- Human Immunodeficiency Virus
- Lentivirus (genus)
- Retrovirus (family)

### **Organization of the HIV-1 Virion**



Cross section of HIV

# What is HIV?



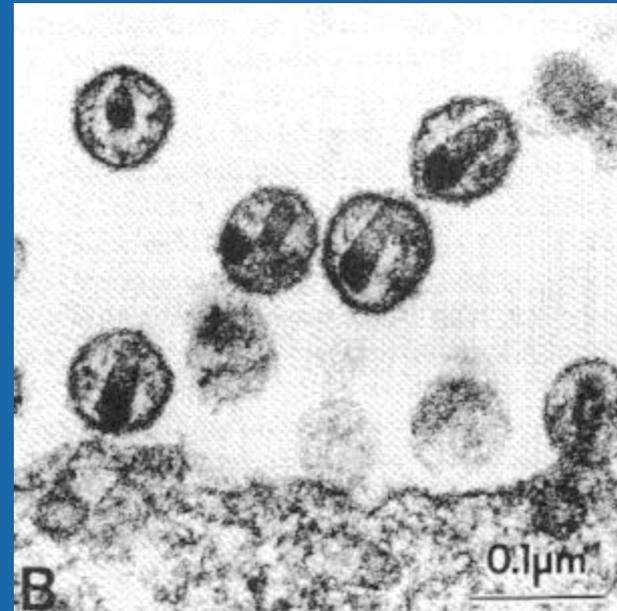
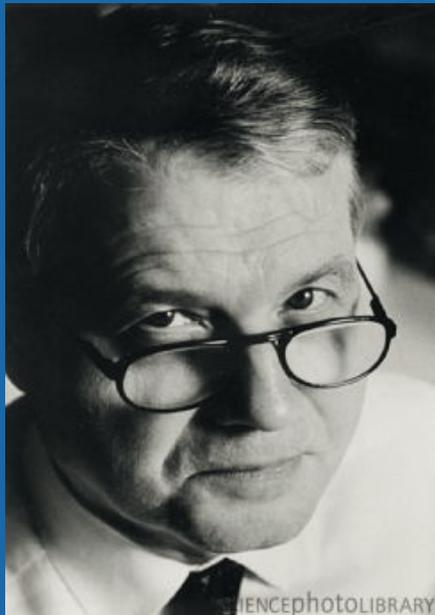
## *Origin*

- Evolved from SIV (Simian Immunodeficiency Virus)
- People hunted simians for food and clothing
- Over long period of time SIV mutated from constant exposure into HIV

# What is HIV?

## *Brief history*

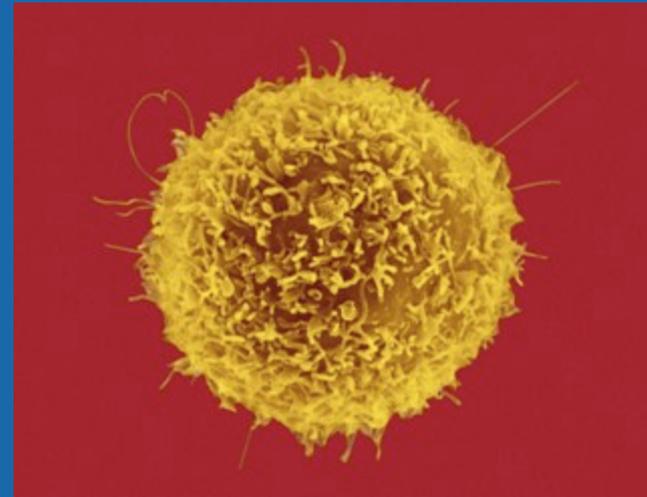
- 1981 – First AIDS documented case in US
- 1983 – Luc Montagnier isolated HIV



# How does HIV affect the body?

## *Target*

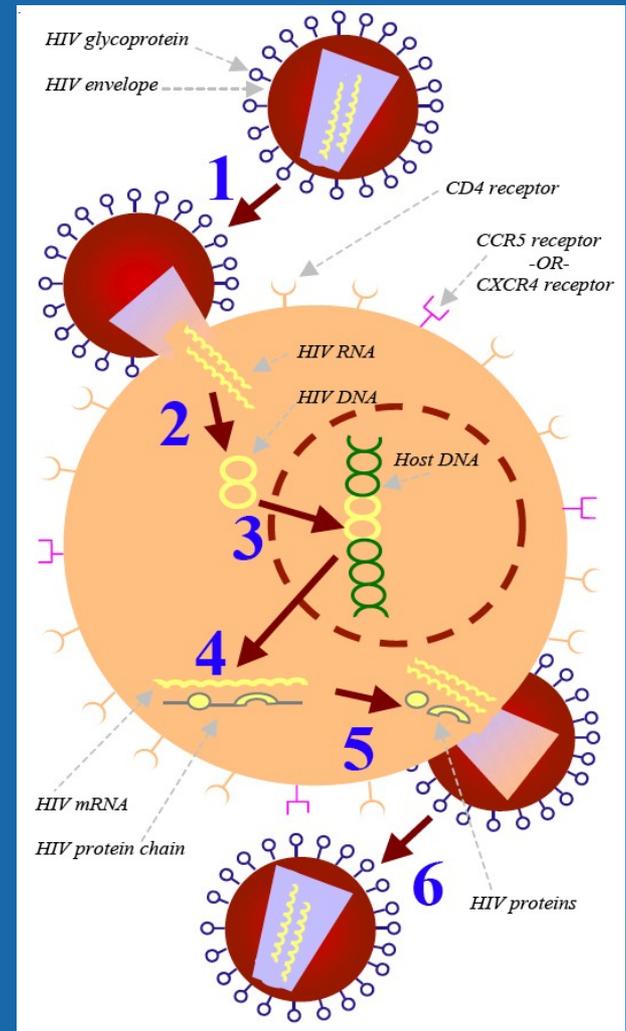
- Human immune system –  
CD4+ T-cells



# How does HIV affect the body?

## Process

1. HIV attaches to host cell
2. HIV replicates using the host cell DNA
3. The new HIV organism kills the host cell and infects other cells.

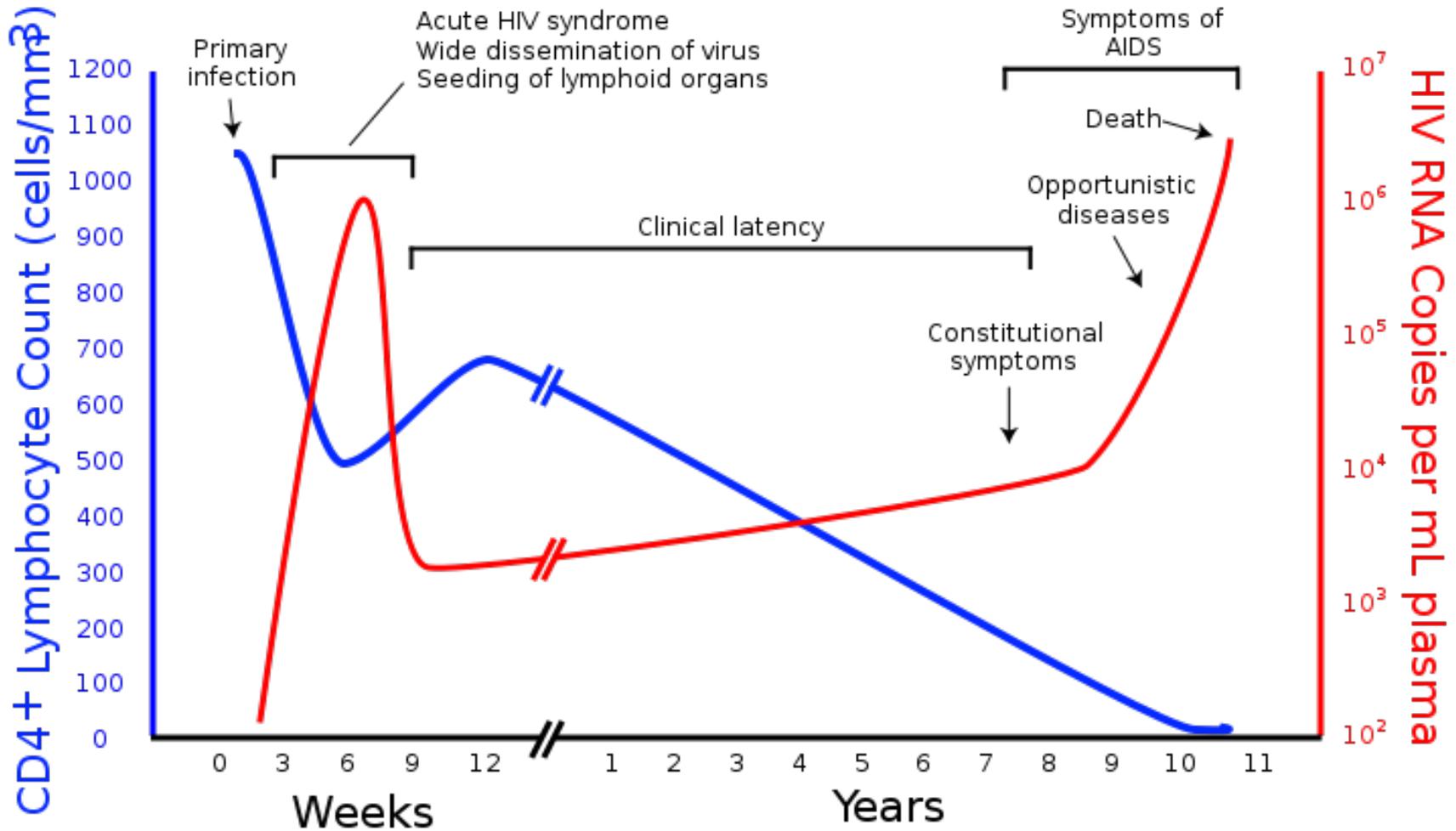


# How does HIV affect the body?

- Up to 10 years to develop symptoms
  - First symptoms usually show up 2-4 weeks after exposure. But most people do not have these first flu-like symptom.
- Progresses to AIDS
  - AIDS: Acquired y syndrome
  - T-cell count  $< 200/\mu\text{L}$
  - Body becomes vulnerable



# How does HIV affect the body?



# How does HIV affect the body?

## *Opportunistic infections*

- People with healthy immune system can fight them off; becomes harder with HIV
  - Tuberculosis - Bacterial Infection
  - Kaposi's Sarcoma - Cancer
  - Herpes Zoster - Viral Infection
  - Thrush (Candidiasis) - Fungal Infection
  - Pneumocystis Pneumonia - Fungal Infection

# How is HIV spread?

## Body fluids that can spread HIV

- Blood
- Semen (& Pre-seminal Fluid)
- Vaginal fluid
- Breast milk

# How is HIV spread?

*You can get HIV from an HIV+ person through:*

- Unprotected sex
  - Anal, vaginal, oral
- Sharing of intravenous drugs equipment (i.e. needles)
- Mother to child
  - Pregnancy, birth, breastfeeding
- Blood transfusion

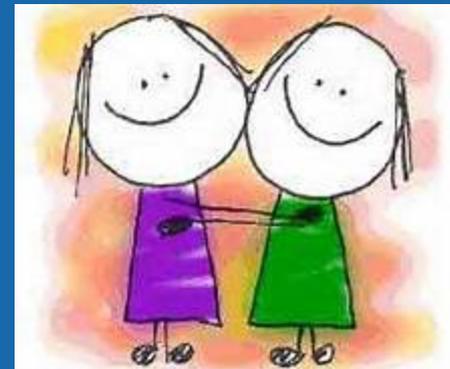
# How is HIV spread?

## *Risk behaviors*

- Multiple sex partners
- Presence of other STDs increase risk
- Piercings, tattoos
- Alcohol/drugs
- Unprotected anal/vaginal sex

# How is HIV NOT spread?

- HIV must get directly into your bloodstream to get infected
- HIV is **NOT** transmitted through casual contact (Kissing, holding hands, sharing utensils etc.)



# HIV tests

- Antibody tests
  - Rapid, ELISA, Western Blot
  - Window period (3 months)
- Antigen tests
  - Multi Spot test used
- RNA tests
  - Reduces window period to 12 days
  - Expensive



# How can HIV be prevented?

- No vaccine exists
- Treatment increases life quality, but does not cure HIV
- Treatment for pregnant HIV+ women reduces risk of child becoming infected



# How can HIV be prevented?

- Abstinence: Only 100% method
- Get tested
- Limit number of sex partners
- Always use a condom
- Don't inject drugs
- Always use clean needles for drugs (legal / illegal) and tattoos.
- Avoid any other risky behavior



# HIV in El Paso, Texas

## HIV and AIDS infections by transmission category in El Paso County, Texas, 2014

People Living With HIV/AIDS PLWHA 2014	El Paso County
Male-to-male sexual contact	1399
Intravenous drug use	158
Male-to-male sexual contact and intravenous drug use	95
Heterosexual contact	353
Perinatal	15
Other	10
<b>Total</b>	<b>2030</b>

PLWHA 2014	El Paso County
Male	1763
Female	267
<b>Total</b>	<b>2030</b>

PLWHA 2013-Age	El Paso County
0-14	7
15-24	95
25-34	341
35-44	442
45+	1145
<b>Total</b>	<b>2030</b>

Texas Department of State Health Services (2014). Texas HIV Surveillance Report: 2014 Annual Report. Retrieved from <http://www.dshs.state.tx.us/hivstd/reports/>

# Where can I get tested?

## HIV Prevention Program



Phone: (915)212-6665

Tuesday, Wednesday & Friday

8:00 - 11:30 and 1:00 - 4:30

222 S. Campbell

Rm 105

El Paso, Texas 79901

\*Ages 13 and up



# Questions?

