

HIV / AIDS



HIV/AIDS Info & History

- In 1981,¹ the first cases of AIDS were identified among gay men in the US. However, scientists later found evidence that the disease existed in the world as early as 1959.
- The first documented case of HIV was traced back to 1959 using preserved blood samples, which were analyzed in 1998.
- In first-world countries, AIDS is now a chronic disease, but this was not the case in the past.
- AIDS is 100% preventable, and yet there were 56,300 new infections in 2006 in the US alone.²

1. Advert.org

2. Centers for Disease Control and Prevention

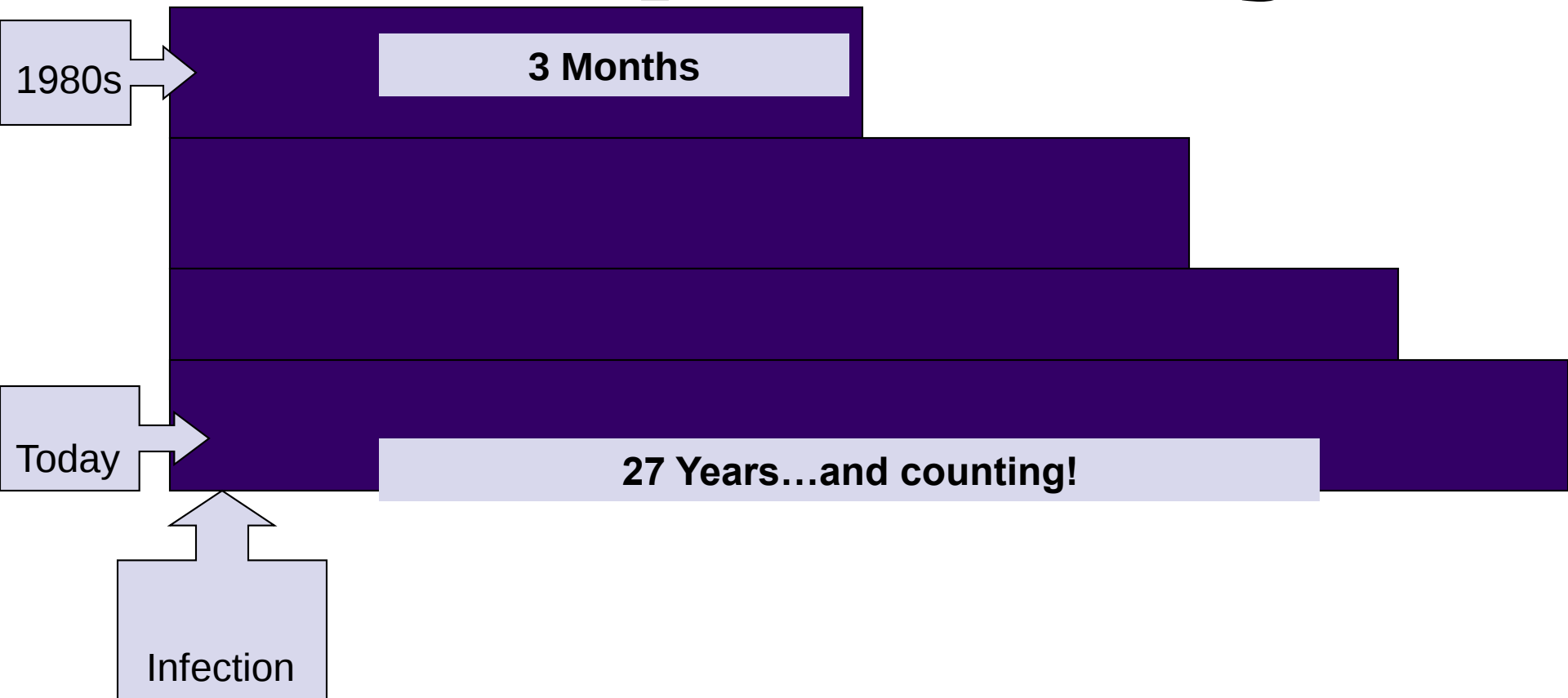
AIDS is a Global Problem

- 33 million people worldwide have HIV/AIDS.
- 571,378 people in the United States are HIV-positive.
- New HIV infections occur every 6 seconds.¹



From Terminal to Chronic

Life Expectancy



Statistics

- Worldwide: Over 33 million people are living with HIV.¹
 - 50 percent are women.¹
 - 2 million are children under age 15 years.¹
- United States: Over 570,000 people are living with HIV.²

1. UNAIDS

2. Centers for Disease Control and Prevention

An individual is at risk if she or he...

- **Has had unprotected sex—ever.**
- **Has had multiple partners within one year.**
- **Has shared needles, or if the partner has shared needles.**
- **Has had a sexually transmitted disease, or sexually transmitted infection—ever.**
- **Uses alcohol or drugs.**
 - **This is an indirect risk factor as it causes impaired judgment, which can lead to high-risk behaviors.**

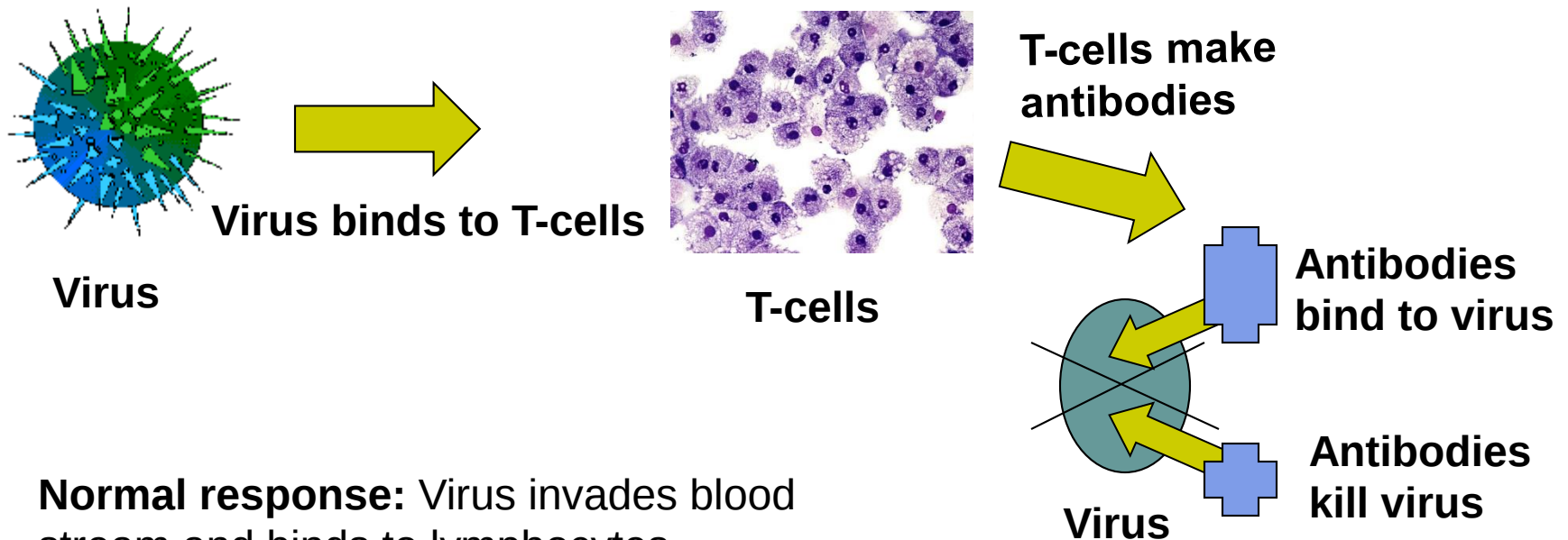
Definitions

- H - Human
- I - Immunodeficiency
- V - Virus

Definitions

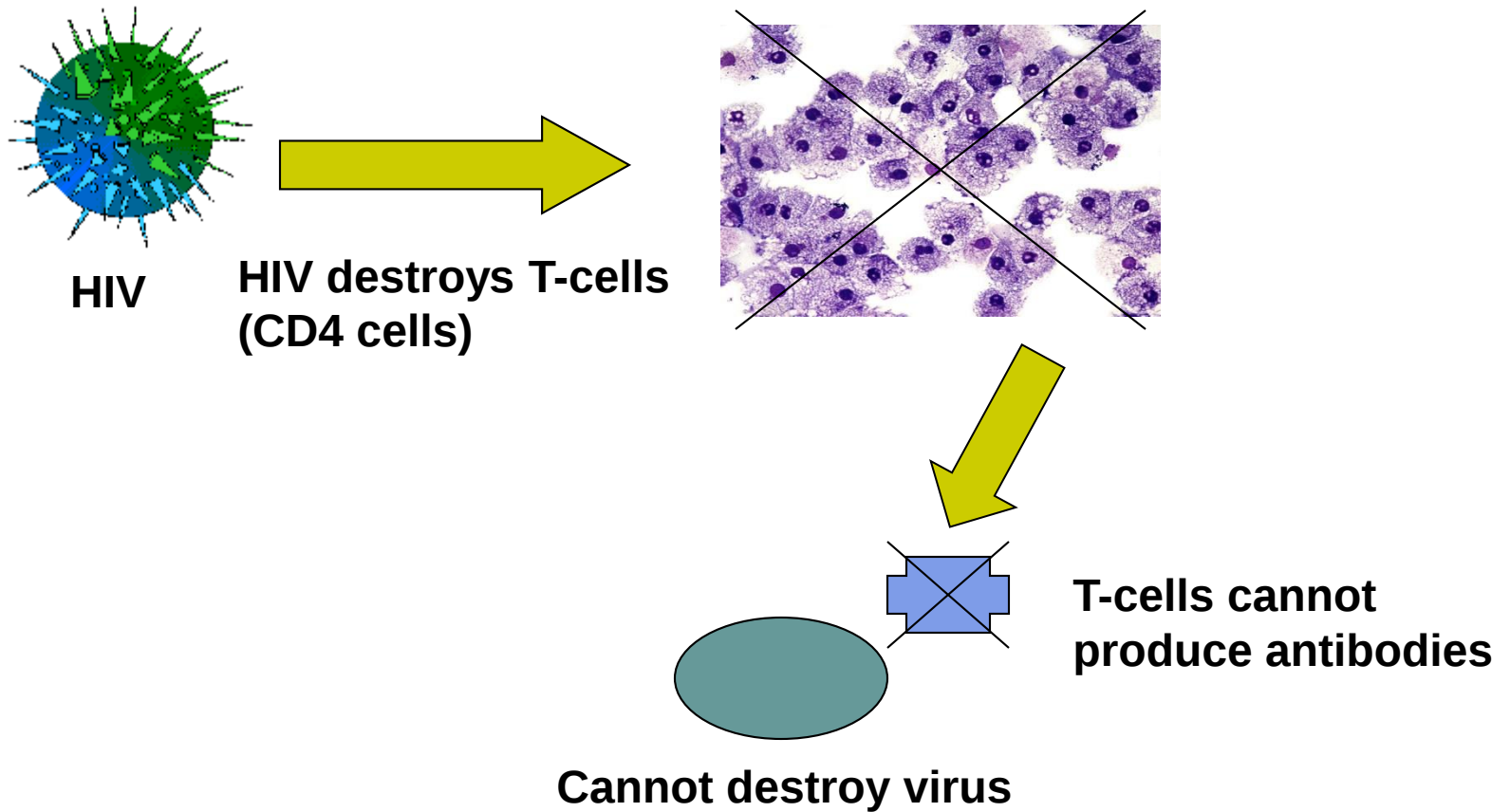
- A - Acquired
- I - Immune
- D - Deficiency
- S - Syndrome

Normal Immune Response



Normal response: Virus invades blood stream and binds to lymphocytes. Lymphocytes make antibodies to the virus. Antibodies bind to the virus and destroy the virus.

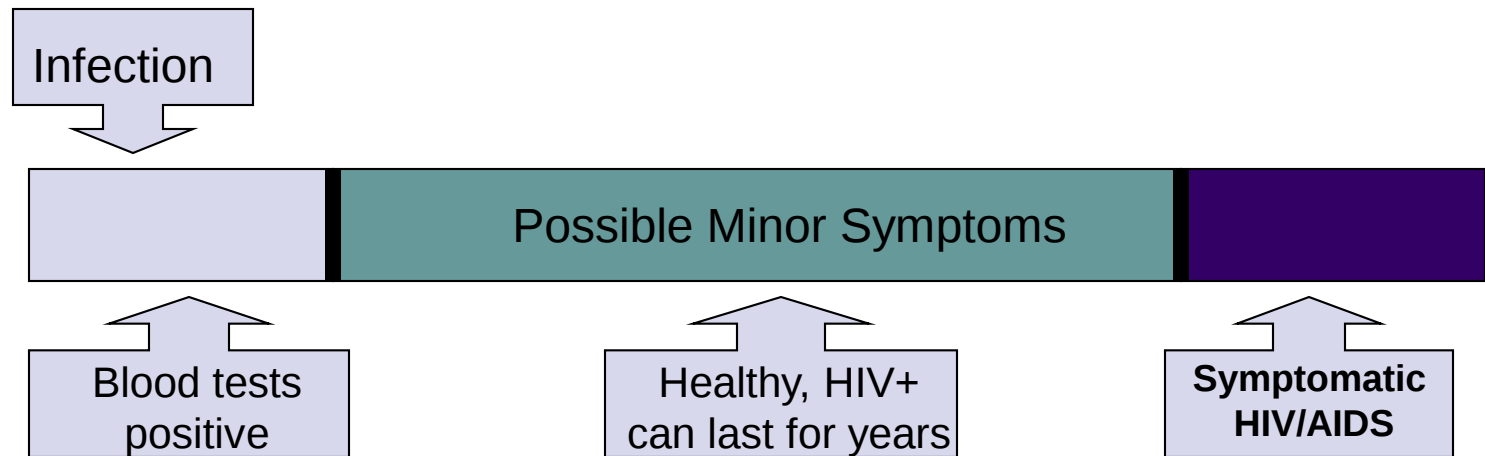
Immune Response to HIV



What's the difference between HIV and AIDS?

- HIV, a virus, eventually causes AIDS, a syndrome.

Spectrum of HIV



T-Cell Count

- If 1,200 or higher, the individual has a normal immune system.
- If 800 or less, the immune system is weakened and individual is susceptible to infection.
- If 200 or less, AIDS is diagnosed.
- Once a person is diagnosed with AIDS, she or he is always categorized as having AIDS, even if her or his T-cell count increases.

Criteria for Diagnosing AIDS

- A CD4 cell (type of T-cell) count of 200 or less,

or

- One opportunistic infection.
 - An opportunistic infection is an infection that typically does not affect individuals with normal immune systems.

Fluids and HIV Transmission

Fluids that can transmit HIV

Fluids that DO
transmit HIV:

- Blood
 - Semen
 - Vaginal Fluid
 - Breast Milk
- (in order of the highest
concentration of HIV)

Fluids that DO NOT
transmit HIV:

- Saliva
- Tears
- Mucus
- Urine
- Sweat
- Feces

Relative Risk

High risk:

- Sharing needles
- Unprotected sex
- Breast feeding

Lower risk:

- Protected sex
- Any opportunity for exchange of body fluids

No risk:

- Casual contact

Universal Precautions

- Wash your hands!
- Disinfect utensils and living space.
- Use barriers—preferably latex.

HIV cannot be spread through casual contact, but these are good practices for preventing opportunistic infections.

Barriers include:

- Latex Gloves
- Latex Condoms
- Sheepskin condoms do NOT protect!
- Latex Dental Dams
- Anything that protects your skin from a fluid



Prevention

- What is the only 100% effective way to prevent HIV infection?

ABSTINENCE!

- What does abstinence include?
 - Do not have sex with infected, possibly infected, or multiple partners.
 - Do not share needles.

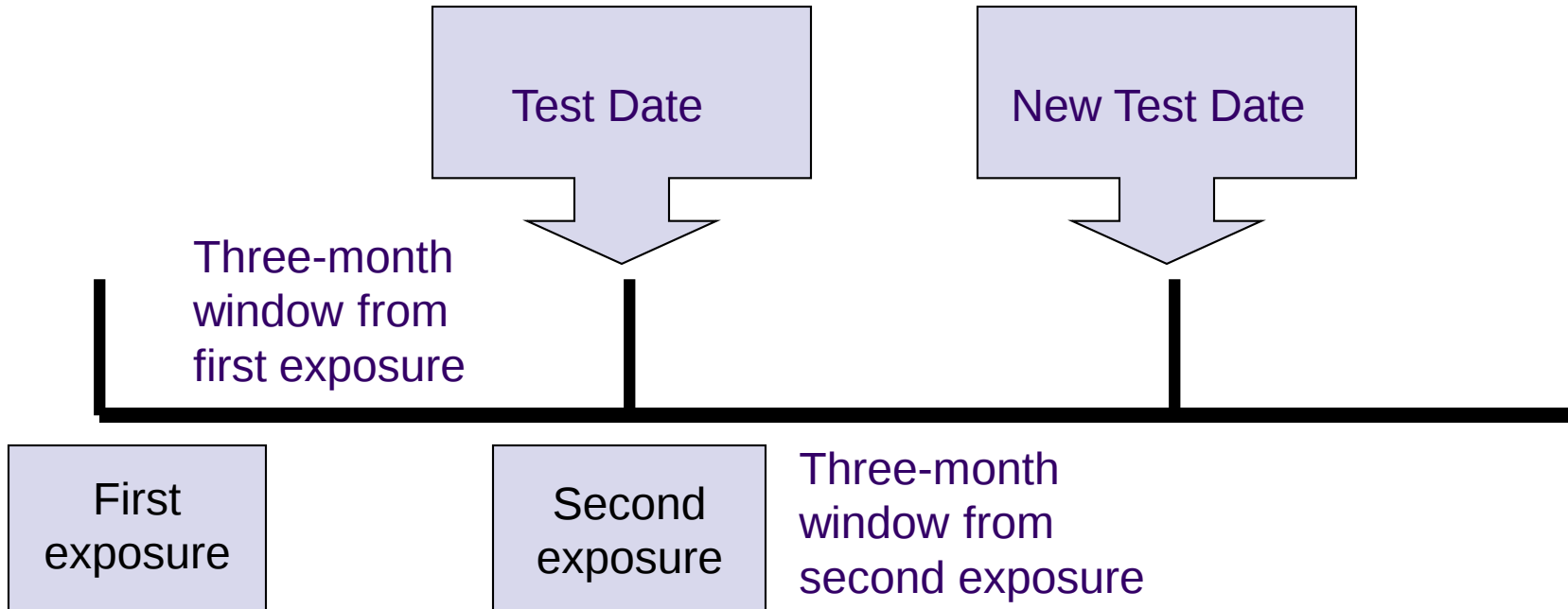
Other Prevention Options

- If not abstinence, barriers can greatly reduce the risk of HIV transmission.
- Use latex condoms and water-based lubricants or dental dams.

Testing

- The test is for antibodies against HIV, not for the virus itself.
- It can take up to three months for the body to produce antibodies against HIV.
- A negative test result may mean recent infection.
It is possible to infect others during this stage.
- An individual should be tested three months after possible exposure to guarantee an accurate result.

Timeline



Real Life Application

- At a party three months ago, I engaged in some high-risk behaviors....When should I get tested?



Today!



- Before I came here today, I got high with a used needle...now what do I need to do?

Avoid the possibility of infecting others!

Get tested in 3 months!

**The ONLY way to know
is to get TESTED!**

Find a Testing Site Near You!

- Go to www.hivtest.org
- Enter your zip code.
- Instantly receive list of all HIV-testing sites in your area.

Treatment

- Today, in the US, HIV/AIDS is a chronic disease.
- Anti-retroviral drugs are used in combination, known as Highly Active Anti-Retroviral Therapy (HAART).
- Side effects can be severe, but the risks of not being treated are more severe.
- Cornell University estimates the monthly cost of treatment as \$2,100, with a lifetime cost of treatment of \$618,900.