

Revised 4/10



HIV 101

**Cobb and Douglas Counties
Community Services Boards**

**Southeast AIDS Training and Education Center (SEATEC)
Emory University School of Medicine, Atlanta, GA**

What is HIV?

Human *Immunodeficiency* *Virus*

- The virus that causes AIDS
- Not everyone who is infected with the HIV virus has AIDS
- A person who has been infected with HIV can still pass the virus onto others, even if he/she does not feel sick.



What is AIDS?

Acquired: something new

Immune Deficiency: weakness in the body's ability to fight off infections and illnesses

Syndrome: a group of signs and symptoms that together make up an illness

AIDS is the progression of HIV infection

Also a *medical definition*, meaning:

- The immune system is extremely damaged

and/or

- An "opportunistic infection" is present: an illness that occurs when the immune system is damaged and lab tests confirm the presence of HIV



HIV transmission requires:

Unsafe Behavior

+

HIV Infected Fluid

+

Port of Entry



Behaviors that put one at risk for HIV infection

- **Drug use**

- Injection
- Other



- **Sex**

- anal
- vaginal
- oral



- **Mother to child**

- pregnancy
- delivery
- breast feeding



Fluids that can transmit HIV:

- Blood**
- Semen**
- Vaginal secretions**
- Breast milk**
- Any fluid that contains blood**



Ports of Entry:

- **Anus**
- **Vagina**
- **Urethra (where urine leaves the body)**
- **Mouth**
- **Broken skin (sore, cut or scrape)**



Important to remember:

**Sex is by far the most
common way people are
at risk for HIV**



How does HIV damage your immune system?

- **CD4 count (types of immune cell)**

- is decreased if you are not doing well with your HIV treatment; your body is not able to fight off infections; a count below 200 means you have AIDS

- is increased if you are doing well with your HIV treatment

- **Viral Load (amount of HIV in the blood)**

- is increased if you are not doing well with your HIV treatment

- is decreased if you are doing well with your HIV treatment—the goal of treatment is to have a viral load as low as possible



Progression of HIV Infection

Initial Infection:

- Amount of virus goes up for several weeks
- Often flu-like symptoms which go away on their own
- "Window period"

No Symptoms:

- Look and feel fine for years
- HIV test the only way to know

Early Symptoms:

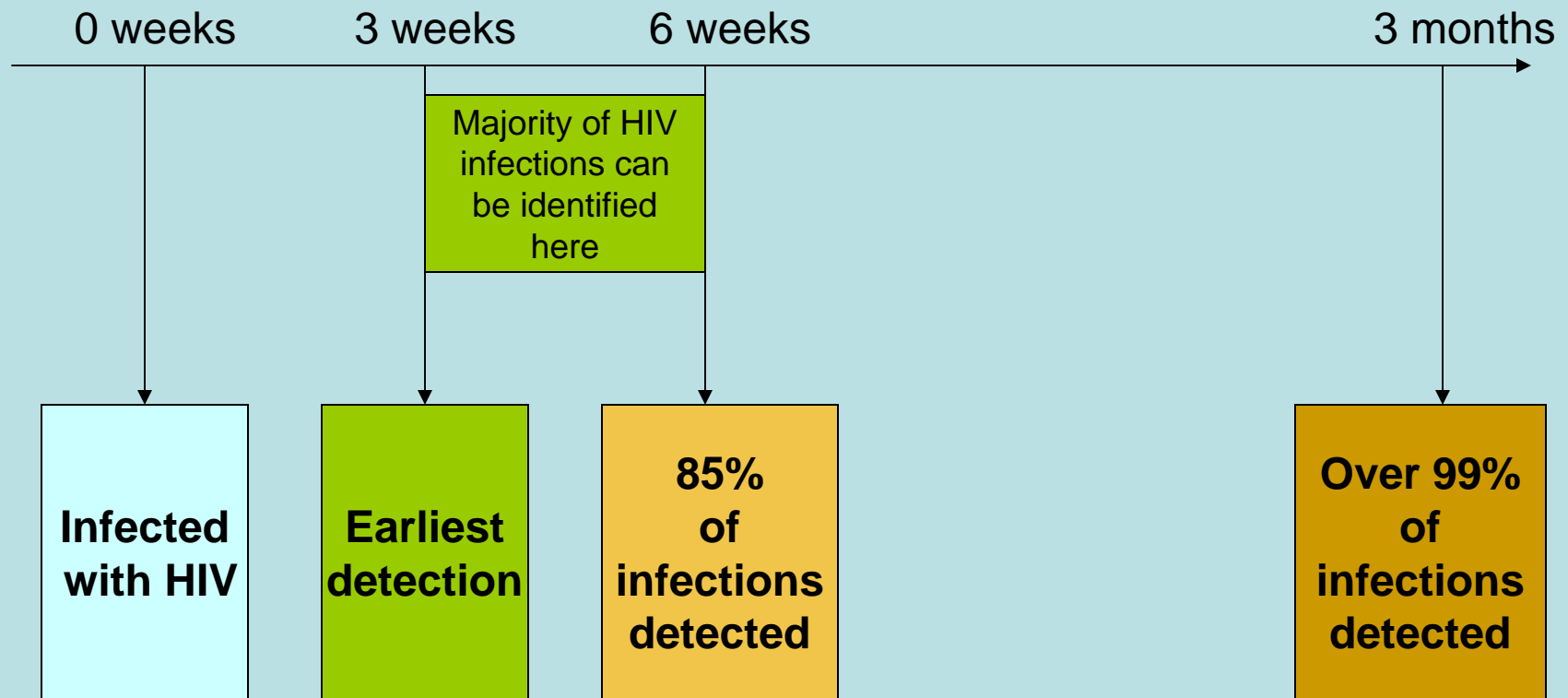
- Swollen glands, skin problems, weight loss
- May last for years

Late:

- Serious illnesses



Window Period for HIV Antibody Detection



Note: In very rare situations, detection of antibodies may take more than 3 months .

HIV/AIDS in Georgia, through 12/2007

- **There were a total of 33,719 persons living with HIV/AIDS**
- **1,691 persons newly diagnosed with HIV (not AIDS) in 2007 alone**
- **1,040 persons newly diagnosed with AIDS in 2007 alone**
- **In those persons who were newly diagnosed in 2007, 54% of the men and 85% of the women did not know how and/or could not identify their risk for getting HIV**



CDC Revised Recommendations on HIV Testing, 2006

- **Routine HIV testing for ALL patients between the ages of 13-64 visiting health care settings**



HIV Testing:

- Tests look for antibodies in either blood or cells from the gums/cheek (not saliva) that indicate the person has been infected with the HIV virus
- Antibodies are cells in the immune system that show the body is trying to fight off HIV infection
- A person who has been given a “preliminary positive” test result **MUST** take a 2nd test (which is more specific) to actually prove he/she has been infected with the HIV virus



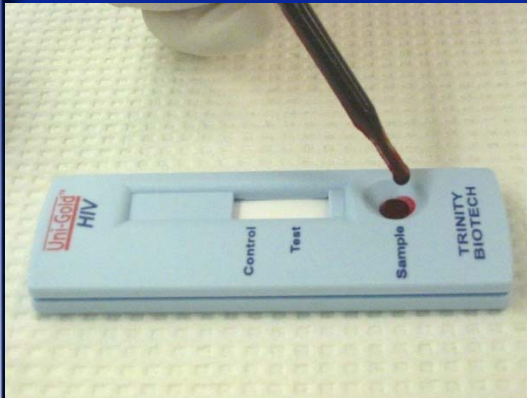
Comparison of HIV Test Methods

	Standard	Rapid
Test process	Must be done in a lab; uses blood, cells from gum/cheek (not saliva)	Can be done in a clinic by non-laboratory staff; uses blood or cells from gum/cheek
How long does it take to get results?	It may take up to a week; client must make a return appointment to learn results, and some choose not to	Clients given results the same day; preliminary positive results must be confirmed and need a 2 nd sample and visit
How do you confirm a preliminary positive test result?	Western Blot confirmatory test is part of the initial test process; no additional sample is needed	Western Blot confirmatory test is extra; a 2 nd specimen must be taken and processed
How good is the test?	These tests are very sensitive and are a very good indication that antibodies to HIV have been found	These tests are very sensitive and are a very good indication that antibodies to HIV have been found



FDA-approved rapid HIV Tests

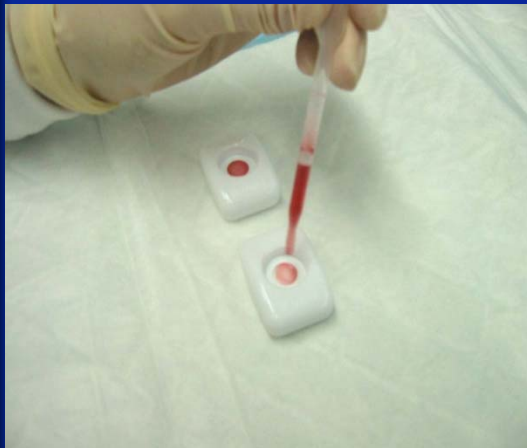
**Uni-Gold
Recombigen**



**Multispot
HIV-1/HIV-2**



**Clearview
Complete**



Reveal G2

**OraQuick
Advance
HIV-1/HIV-2**



Goals of HIV Treatment

- Prevent HIV from reproducing in the body
- Allow the immune system to recover
- Slow down disease progression
- Prolong life
- No cure so far



HIV treatment today

- There are more than 20 different drugs that work in 5 different ways to help control the virus
- People take a combination of these drugs, sometimes combined in one pill
- Drugs work only when they are taken on schedule
- Side effects are common



How to prevent becoming infected with HIV:

- Know your status: get tested for HIV!
- Consider abstinence
- Carefully choose sex partner(s)
* See *"How to Pick a Partner"*
- Condoms and lubricant (no spermicides)
- HIV testing with new partner before having sex
- No sharing of drug needles, pipes, straws
- No use of alcohol or drugs that impair judgment



How to Pick a Partner

- Don't even think about it...
 - involved in a crime
 - needle drug user; wants you to use drugs
 - emotionally, physically, or sexually violent
- You deserve better...
 - dated *lots* of people in the past
 - doesn't listen to you
 - doesn't want you to have other friends
 - uses and/or wants your money
 - lies, blaming, bossy
 - pressures you to have sex
 - wants you to make a commitment when you're not ready
- This could work!
 - appeals and listens to you
 - respects your wishes
 - never, ever scares you
 - has plans and goals that fit your own



How can a pregnant woman prevent passing HIV onto her baby?

Get a test at the beginning of pregnancy, and again in the 7th month

If you have HIV, taking the medicine faithfully during pregnancy and giving medicine to the newborn can help prevent transmission to the baby



Resources

- www.thebody.com
- www.cdc.gov
- Cobb/Douglas Counties Board of Health:
770-514-2464
- Georgia AIDS/STD Hotline: 1-800-551-2728
- National AIDS Hotline: 1-800-232-4636
- American Social Health Association:
1-800-227-8922



About



Southeast AIDS Training and Education Center (SEATEC), is one of the 11 Regional AIDS Education and Training Centers, and serves Georgia, Alabama, Kentucky, Tennessee, North Carolina, and South Carolina. Located in the Department of Family and Preventive Medicine at Emory University School of Medicine in Atlanta, SEATEC offers on-site training, clinical consultation, free-standing HIV education programs, and clinical preceptorships to providers seeking further expertise in HIV/AIDS care.

For further information or to request training, visit the website at <http://www.seatec.emory.edu> or call (404)-727-2929.

