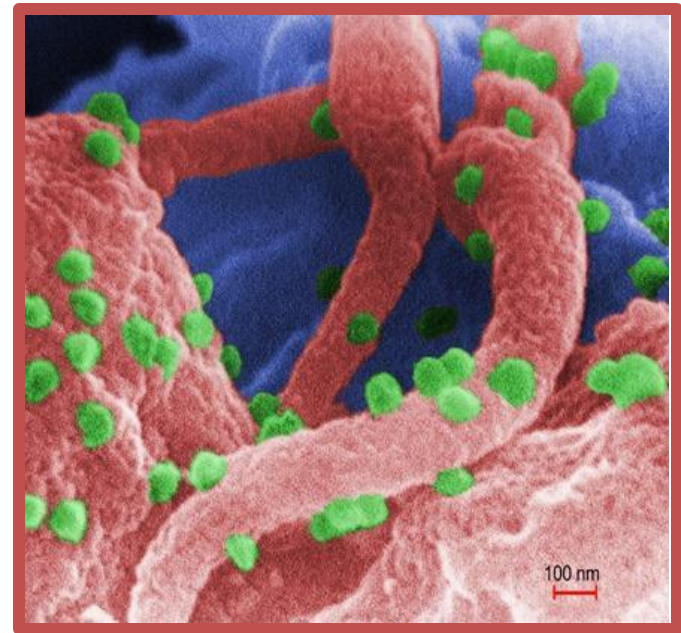


Lesson 13.3

HIV/AIDS

HIV and AIDS Defined

- Human immunodeficiency virus (HIV) infects and kills cells, weakening the body's immune system
- Acquired immunodeficiency syndrome (AIDS) is an often fatal disease in which the body's immune system can no longer fight off infections and diseases



Phases of HIV

Figure 13.13 Sequence of Events from HIV Infection to Immune System Breakdown Due to AIDS

Phase 1	Phase 2	Phase 3
First six months	Six months to 8-10 years	Ten years
high amount of virus in blood	amount of virus in blood rapidly declines	amount of virus in blood rises steadily
normal level of T-helper cells in blood rapidly declines	T-helper cell level increases and then declines slowly and steadily	T-helper cell level becomes too low to mount immune responses to infections
No symptoms in some people, but others have a fever and swollen lymph nodes.	Some people have few serious symptoms. Many people develop yeast infections in the mouth, throat, and vagina. Viral infections develop.	Yeast infections affect the throat and lungs. Fungal infections cause pneumonia. Tuberculosis occurs. Viruses cause eye infections. Brain infections, meningitis, and blood vessel tumors (Kaposi's sarcoma) develop.

A person who tests HIV-positive has AIDS.

MYTH

- **Fact:** A person who tests HIV-positive is infected with HIV, but does not necessarily have AIDS.
- **Fact:** AIDS can develop later, perhaps many years after HIV infection.

HIV can be transmitted through someone's bodily fluids, including kissing them.

MYTH

- **Fact:** HIV is found in blood, semen, vaginal secretions, and breast milk, NOT tears, saliva, or sweat.
- **Fact:** HIV is not transmitted by mosquitoes or by kissing, spitting, shaking hands, sharing food, or using the same toilet seats.

Signs and Symptoms of HIV/AIDS

- Early symptoms resemble a flu-like illness with fatigue and swollen lymph nodes
- When the virus weakens the immune system, opportunistic infections occur
- HIV/AIDS develops differently and at different rates for all affected people



Worldwide, about 1 in 4 people with AIDS die from tuberculosis.

Diagnosis



- The HIV test examines a blood sample for the presence of antibodies to the virus
- A home version of the HIV test is available
- Sexually active people should be tested every year and every time they switch sexual partners

Critical Thinking

HIV Testing

Suppose a person thinks he or she was exposed to HIV within the past three months. The person takes an HIV test, which turns out negative.

Should this person stop being concerned that he or she may have HIV? Why or why not?

HIV Test Results Are Confidential

- The Health Insurance Portability and Accountability Act (HIPAA) is a federal law that requires confidentiality for HIV test results
- If a test is positive, healthcare providers must report the results to the state
- The results are reported with no identifying personal information
- Some cities and states have laws requiring HIV-positive individuals or their doctors to notify their partners

Discrimination

- Two important laws protect the rights of HIV-positive people
 - Americans with Disabilities Act (ADA) of 1990
 - Rehabilitation Act of 1973
- People with HIV/AIDS cannot be denied jobs, benefits, education, services, or other rights



Treatment



- The cornerstone of HIV/AIDS treatment is anti-retroviral therapy (ART)
- ART consists of a mixture of three drugs, sometimes called a cocktail of drugs
- The aim of ART is to reduce the number of viruses in the body so that the immune system remains strong

Think Further

What are the drugs in an ART cocktail designed to do?

When should an HIV-positive person begin ART?

