



**ORIGINAL RESEARCH PAPER**

**Community Medicine**

**HIV Basics**

**KEY WORDS:**

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HIV stands for human immunodeficiency virus. It weakens a person's immune system by destroying important cells that fight disease and infection. No effective cure exists for HIV. But with proper medical care, HIV can be controlled.

This section will give you basic information about HIV, such as how it's transmitted, how you can prevent it.

HIV stands for human immunodeficiency virus. It is the virus that can lead to acquired immunodeficiency syndrome or AIDS if not treated. HIV attacks the body's immune system, specifically the CD4 cells (T cells), which help the immune system fight off infections. Untreated, HIV reduces the number of CD4 cells (T cells) in the body, making the person more likely to get other infections or infection-related cancers. Over time, HIV can destroy so many of these cells that the body can't fight off infections and disease. These opportunistic infections or cancers take advantage of a very weak immune system and signal that the person has AIDS, the last stage of HIV infection.

Most commonly, people get or transmit HIV through sexual behaviors and needle or syringe use. Only certain body fluids—blood, semen (cum), pre-seminal fluid (pre-cum), rectal fluids, vaginal fluids, and breast milk—from a person who has HIV can transmit HIV. These fluids must come in contact with a mucous membrane or damaged tissue or be directly injected into the bloodstream (from a needle or syringe) for transmission to occur. Mucous membranes are found inside the rectum, vagina, penis, and mouth.

HIV may be spread from mother to child during pregnancy, birth, or breastfeeding. Although the risk can be high if a mother is living with HIV and not taking medicine, recommendations to test all pregnant women for HIV and start HIV treatment immediately have lowered the number of babies who are born with HIV.

By being stuck with an HIV-contaminated needle or other sharp object. This is a risk mainly for health care workers.

Receiving blood transfusions, blood products, or organ/tissue transplants that are contaminated with HIV.

Contact between broken skin, wounds, or mucous membranes and HIV-infected blood or blood-contaminated body fluids.

It's possible to get HIV from tattooing or body piercing if the equipment used for these procedures has someone else's blood in it or if the ink is shared. There is risk of getting HIV.

**HIV is not transmitted by**

HIV is not transmitted by mosquitoes, ticks, or any other insects.

HIV is not transmitted by food, even if the food contained small amounts of HIV-infected blood or semen, exposure to the air, heat from cooking, and stomach acid would destroy the virus. Though it is very rare, HIV can be spread by eating food that has been pre-chewed by someone with HIV. The contamination occurs when infected blood from a caregiver's

mouth mixes with food while chewing. The only known cases are among infants.

**PREVENTION**

Today, more tools than ever are available to prevent HIV. Abstinence (not having sex), Limiting your number of sexual partners, Never sharing needles, and using condoms the right way every time during sex.

**AIDS and Opportunistic Infections**

Opportunistic infections are infections that occur more frequently and are more severe in people with weakened immune systems, including people with HIV.

Common opportunistic infections, Candidiasis of bronchi, trachea, esophagus, or lungs, Invasive cervical cancer, Coccidioidomycosis, Cryptococcosis, Cryptosporidiosis, chronic intestinal (greater than one month's duration), Cytomegalovirus diseases (particularly retinitis) (CMV), Herpes simplex (HSV): chronic ulcer(s) (greater than one month's duration); or bronchitis, pneumonitis, or esophagitis, Histoplasmosis, Isosporiasis, chronic intestinal (greater than one month's duration), Kaposi's sarcoma, Lymphoma, multiple forms, Tuberculosis (TB),

Mycobacterium avium complex (MAC) or Mycobacterium kansasii, disseminated or extrapulmonary. Other Mycobacterium, disseminated or extrapulmonary, Pneumocystis carinii pneumonia (PCP), Pneumonia, recurrent, Progressive multifocal leukoencephalopathy, Salmonella septicemia, recurrent, Toxoplasmosis of brain, Wasting syndrome due to HIV.

How do you prevent opportunistic infections?

The best way is to take HIV medications as prescribed.

In addition to taking HIV medications it is important to keep immune system strong.

Prevent exposure to other sexually transmitted infections.

Don't share drug injection equipment. Blood with hepatitis C in it can remain in syringes and needles after use and the infection can be transmitted to the next user.

Don't consume certain foods, including undercooked eggs, unpasteurized (raw) milk and cheeses, unpasteurized fruit juices.

Don't drink untreated water such as water directly from lakes or rivers.