

AIDS (Acquired Immune Deficiency Syndrome)

Definition:

AIDS is a chronic condition caused by a virus called the human immunodeficiency virus (HIV) that infects and destroys CD4 cells, a type of white blood cells responsible for the immune system.

In people with HIV, the disease develops into AIDS when there are fewer than 200 CD4 cells in blood.

Symptoms:

Symptoms of human immunodeficiency virus (HIV) vary depending on the stage of infection.

Primary infection:

Symptoms often appear within a month or two of infection, including flu-like symptoms, such as:

- Fever.
- Pain in muscles and joints.
- Rashes.
- Headache.
- Sore throat.
- Mouth or genital ulcers.
- Swollen lymph nodes, often in the neck.
- Night sweats.
- Diarrhea.

Clinical latency:

This stage may last for 8-10 years, depending on how the immune system is affected and its ability to resist the virus. In this stage, no symptoms may ever appear.

Symptom onset and AIDS development:

If not detected and treated, the disease develops to chronic symptoms and recurrent opportunistic infections. Symptoms observed in this stage include:

- Night sweats.
- Chills and fever above 38° C lasting for several weeks.
- Cough and shortness of breath.
- Chronic diarrhea.
- White spots on the tongue or in the mouth.
- Headache.
- Impaired vision.
- Weight loss.
- Rashes.

HIV Modes of Transmission:

Human immunodeficiency virus (HIV) is transmitted through blood and body fluids (semen and vaginal discharge), by way of:

- **Sexual intercourse:** During sex, the virus is transmitted from the infected person to the healthy one through sexual fluids and discharges, whether by way of vaginal, anal or oral sex.
- **Blood transfusion:** The virus is transmitted through blood transfusion if careful laboratory testing methods are not followed.
- **Sharing contaminated needles or syringes:** especially in drug users.
- **From mother to child:** Mother-to-child transmission may occur if the mother does not receive proper treatment during pregnancy.
- **Breastfeeding:** Infection is transmitted from the mother to the baby during breastfeeding. Therefore, infected mothers should not breastfeed their babies.

Although HIV is found in other body fluids such as saliva, sweat, tears and urine, it is not transmitted through them or by:

- Hugging, kissing and hand-shaking.



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- Sneezing and coughing.
- Using bathes and swimming pools.
- Using toilets or towels.
- Eating or sharing utensils with AIDS patients.
- Bugs.

People at High Risk for HIV Infection:

- People who have prohibited or homosexual sex.
- People with sexually transmitted diseases that cause genital ulcers, making it easier for the virus to enter the body.
- People who share needles and syringes, especially drug users.
- Studies have shown higher risk in uncircumcised men.

Diagnosis:

Human immunodeficiency virus (HIV) is diagnosed using ELISA or Combo blood tests to detect HIV antibodies that begin to appear within 6-12 weeks of exposure. If positive, a confirmation test called (Western Blot) is done to get a conclusive result.

Complications:

Human immunodeficiency virus (HIV) affects and weakens the body's immune system and makes it easier for a person to develop opportunistic diseases and various types of cancers, including:

- Tuberculosis.
- Salmonella infection.
- Meningitis.

Treatment:

There is no cure for HIV. However, antivirals are used to deactivate it.

Examples include:

Group	Function	Examples
Non-nucleoside reverse transcriptase inhibitors	Disable the protein that HIV needs to reproduce.	Sustiva, Viramune, Intelence.
Nucleoside reverse transcriptase inhibitors.	Block the action of the enzyme that helps forming the viral DNA, thereby stop its replication.	Ziagen, Truvada, Cobmivir
Protease inhibitors.	Disable the protease enzyme that the HIV needs to reproduce.	Reyataz, Prezista.
Fusion inhibitors.	Prevent the entry of HIV into CD4 cells.	Fuzeon, Selzentry.
Integrase inhibitor.	Disables the protein that HIV uses to integrate its genetic material into CD4 cells.	Isentress

Prevention:

Ways of Prevention:

- Avoid sex outside of marriage. It is also important to avoid homosexual relationships.
- Use a condom if one of the spouses has the disease.
- Do not share needles, piercing or shaving tools.
- There is still no vaccine to prevent HIV infection.

Clinical Health Education Department

For further questions kindly contact us via email:

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