

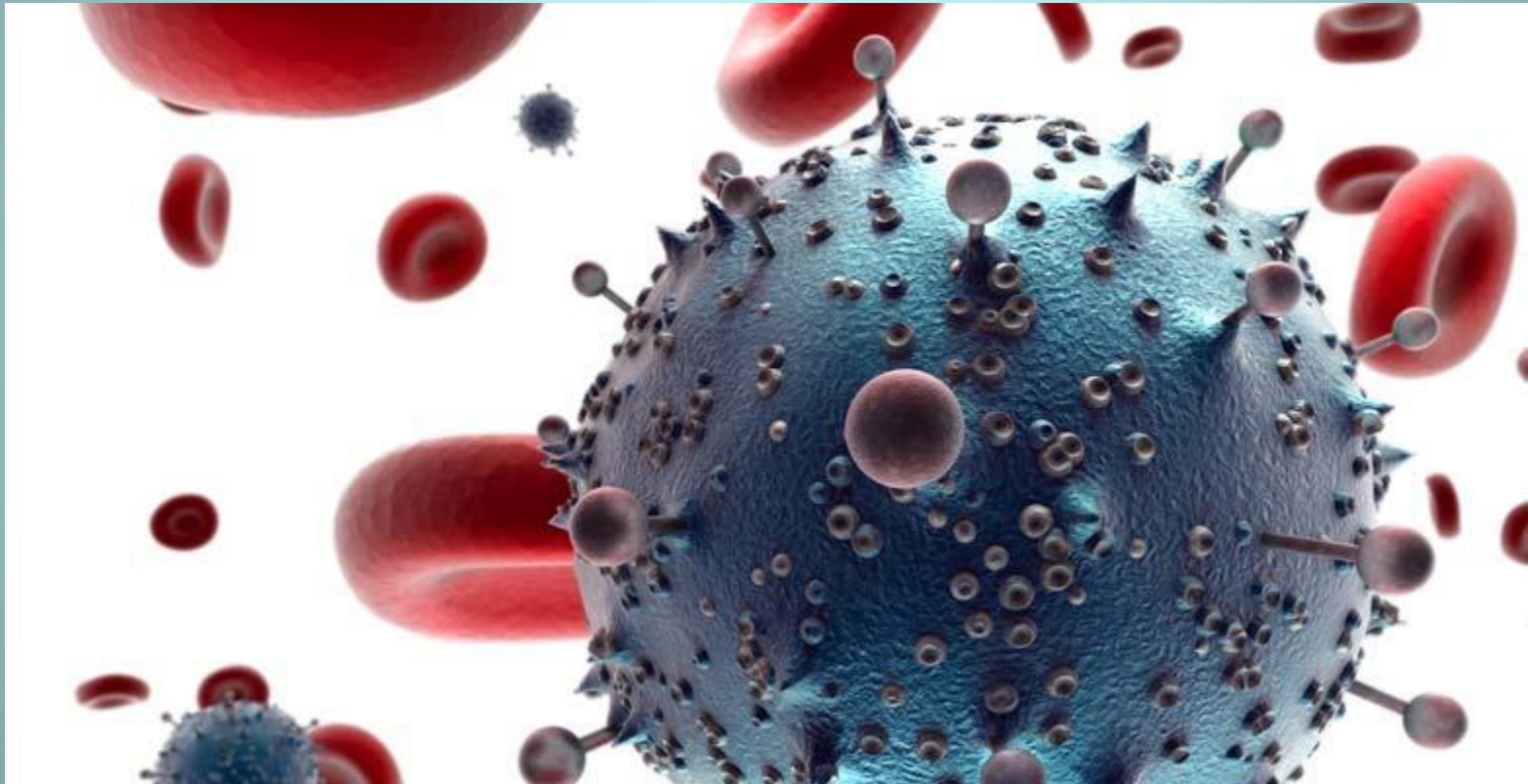
Topic: AIDS
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THE STRUCTURE OF HIV AND AIDS -



- **HIV stands for Human Immunodeficiency Virus, a pathogen that works by attacking the human immune system.**
- **HIV specifically targets CD4 cells, the body's principal defenders against infection, using them to make copies of themselves.**
- **Antiretroviral drugs target specific stages of the 'HIV lifecycle' to stop HIV from replicating.**

- HIV stands for Human Immunodeficiency Virus,
- A pathogen that works by attacking the human immune system.
- It belongs to a class of viruses called retroviruses and more specifically,
- A subgroup called lentiviruses,
- viruses that cause disease slowly.

- HIV cannot replicate on its own,
- So in order to make new copies of itself,
- It must infect cells of the human immune system, called CD4 cells.
- CD4 cells are white blood cells that play a central role in responding to infections in the body.

- Over time, CD4 cells are killed by HIV and the body's ability to recognise
- And fight some types of infection begins to decline.
- If HIV is not controlled by treatment, the loss of CD4 cells leads to the development of serious illnesses,
- Or 'opportunistic infections'.
- In people with normal CD4 cell levels,
- These infections would be recognised and cleared by the immune system.

- Experiencing a collection of these infections is the most advanced stage of HIV,
- Which is when a person is also said to have AIDS (Acquired Immune Deficiency Syndrome).
- Effective testing and treatment of HIV
- That the large majority of people living with HIV do not reach this stage.