

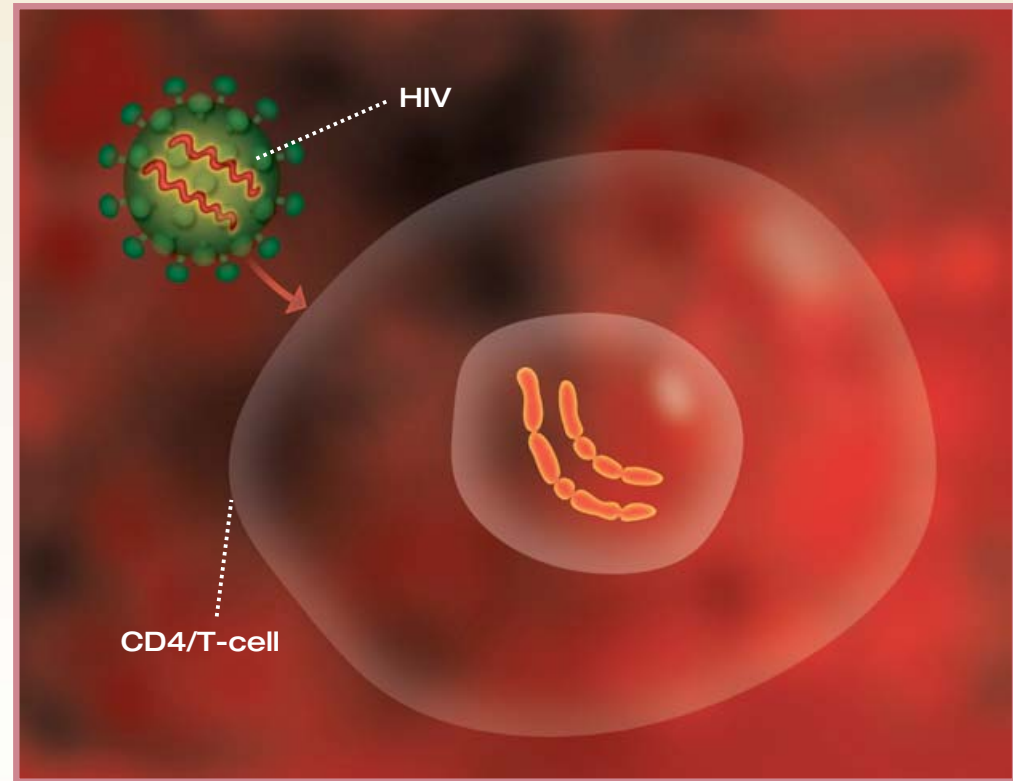
understanding how HIV reproduces

## how does HIV reproduce in the body?

- Our bodies renew themselves by making new cells, such as skin cells and blood cells.
- In a similar way, HIV wants to renew itself.
- However, HIV cannot renew itself or reproduce on its own. It must infect the cells of our immune system called CD4/T-cells. It then uses these cells like factories to make more HIV.
- Several steps must take place before HIV can reproduce.

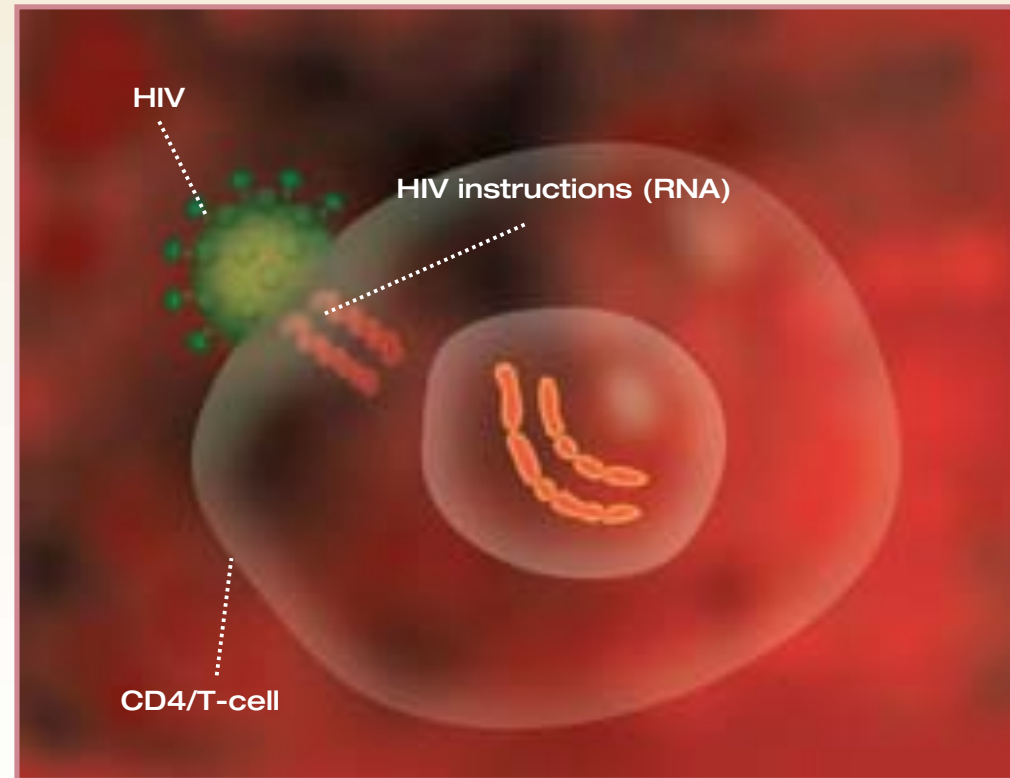
## step 1 — attach

HIV attaches to a CD4/T-cell.



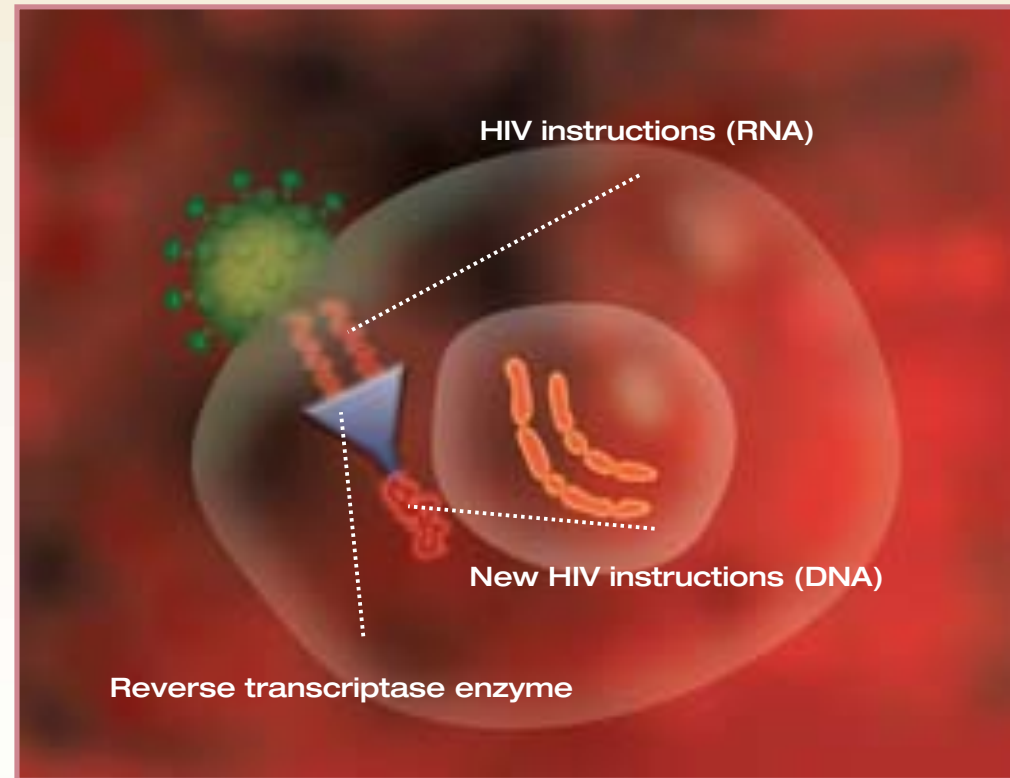
## step 2 — insert

Once attached, HIV inserts instructions (called RNA) into the CD4/T-cell so that the CD4/T-cell can make more HIV.



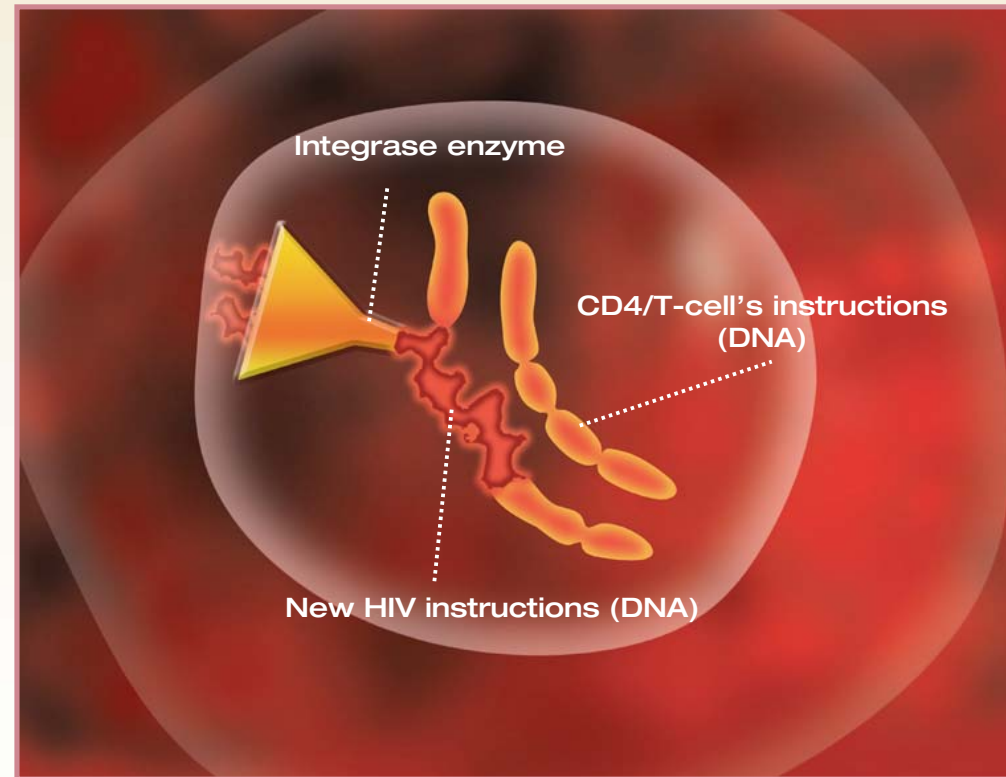
## step 3 — read

HIV then uses an enzyme (helper) called reverse transcriptase. This enzyme helps the CD4/T-cell read the HIV instructions (RNA) and turn them into new instructions (DNA) that the CD4/T-cell can understand.



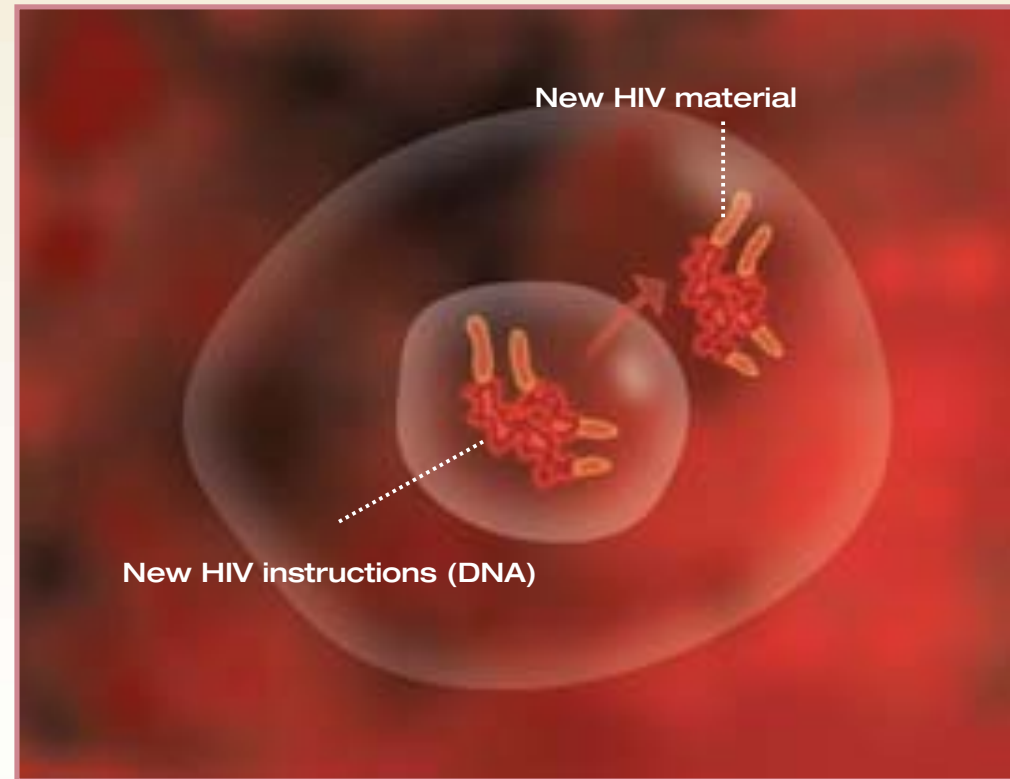
## step 4 — combine

Next, HIV uses an enzyme (helper) called integrase. This enzyme helps HIV integrate (combine) its new instructions (DNA) into the CD4/T-cell's instructions (DNA).



## step 5 — follow instructions

The CD4/T-cell then follows the new instructions (DNA) to make new HIV material.



## step 6 — assemble

HIV then uses an enzyme (helper) called protease. This enzyme helps assemble new HIV.

