



# Israel

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## HIV Research & Prevention

Preventing AIDS by helping the human body block the HIV virus is the ideal way to prevent AIDS, and that is where Israeli researchers are leading the way. A team of researchers at the Weizmann Institute of Science in Israel has shown how a part of a protein on the virus' outer surface interferes with the cells' normal immune response.



In the initial stages of HIV infection, the protein coatings of the viruses fuse with the outer membranes of T cells - immune system cells that recognize foreign invaders and alert other types of immune cell to come to the rescue. The genetic material of the virus, which is basically a strand of RNA, then forces the cell's DNA to make copies of it. Newly minted viruses created by the host DNA later break out of the cell membrane to infect other cells. Many believed that the very act of breaking into T cells and hijacking their DNA was enough to destroy the ability of these cells to call up immune support.

Israeli immunology research has led to greater understanding of how the HIV virus replicates itself into the human body is essential to finding preventions to AIDS.

(Source: Israel Ministry of Foreign Affairs)

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