Some Men Are Different

HIV transmission doesn't necessarily depend on the amount of virus in a man's blood.

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Although some HIV-positive men on antiretroviral treatment carry low levels of the virus in their blood, they may also produce more HIV in their semen. (This heightens their ability to transmit the virus.)

To find out why this phenomenon—called compartmentalization— happens, researchers at the Translational Genomics Research Institute conducted a study to find out how HIV could be compartmentalized in semen. Findings published in PLOS Pathogens, a medical journal, showed a link between higher levels of the virus in semen and raised levels of bacteria and biochemicals called cytokines in this bodily fluid. (Cytokines act as alarm bells for the immune system.)

Says Rupert Kaul, an immunologist from the University of Toronto and the senior author of the study, "We have taken the first step to show that bacteria, HIV and immune response in the semen may be connected."

But what researchers want to know next is whether the imbalance of bacteria raises the viral load in semen, or whether the body's immune response to the virus causes the production of more bacteria.

Stay tuned.

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