Proteins That Contain Selenium Reduce HIV Reproduction

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Increasing the production of proteins in the body containing the mineral selenium may play a role in combating HIV, according to test tube studies conducted at Pennsylvania State University in University Park and reported by *Science Daily*.

Though selenium can be toxic at high levels, the human body depends on it to function. The mineral usually is incorporated into proteins to help with normal cell functioning. Scientists have learned HIV causes a drop in the level of these selenium-containing proteins.

To prove that altering the levels of selenium-containing proteins affects HIV replication, Sandeep Prabhu, PhD, an assistant professor of veterinary and biomedical sciences at Penn State, and his colleagues conducted a series of experiments on HIV-infected cells. They first added a selenium compound called sodium selenite to the cells. This resulted in a 10-fold drop in HIV reproduction. The team next inhibited a selenium-containing protein called TR1, which increased HIV reproduction by 3.5-fold.

Though reproducing this effect in people will not be as simple as having them take selenium supplements, Prabhu hopes that further research may lead to improved HIV drugs.

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http://beta.docker.poz.com/article/hiv-selenium-protein-15705-9305