Treatment: Pot--the Next HIV Drug?

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Synthetic anti-inflammatory compounds derived from cannabinoids, the primary active ingredient in marijuana, appear to show potential to fight HIV. Cannabinoids activate proteins called CB2 receptors on the surface of immune cells. In the lab, researchers treated HIV-infected macrophage cells with one of three different synthetic cannabinoid compounds that bound to and activated CB2. After a week-long period, all three compounds apparently fought HIV replication. Because HIV requires inflammatory factors inside human cells to replicate efficiently, researchers theorize that activating CB2 appears to fight the virus by decreasing the availability of such factors. The findings suggest that these “CB2 agonists” could be a potential addition to antiretroviral therapy, and that the immune system could be prompted to fight HIV using similar means. People wouldn’t get high off the therapy, though, because the psychoactive element of pot results from interactions with the CB1 receptor.