

## Superinfection warning

Created 15 Feb 2004 - 9:00am

The rate of superinfection — re-infection of an HIV-positive person with a second [strain](#) [1][HIV strain] Any subgroup of the HIV species. Because HIV mutates very easily, there are many different strains (and may be multiple strains within a single person). of the virus — appears to be higher than previously thought, at least among gay men not on treatment.

In a landmark study presented to the Eleventh Conference on Retroviruses and Opportunistic Infections (CROI) in San Francisco in February, researchers analysed blood samples taken from 78 recently-infected positive people, almost all of them gay men, looking for signs of superinfection.

For each of the 78 participants, the researchers examined two different stored blood samples taken, on average, more than nine months apart.

Three of the participants — all gay men with multiple sexual partners — had been re-infected with HIV, at times ranging from five to 13 months after their initial infection.

In one case, the superinfection was with a drug-[resistant](#) [2]HIV which has mutated and is less susceptible to the effects of one or more anti-HIV drugs is said to be resistant. strain of the virus, but all three of the men experienced increases in [viral load](#) [3]A measurement of the quantity of HIV RNA in the blood. Viral load blood test results are expressed as the number of copies (of HIV) per milliliter of blood plasma. and decreased CD4 counts.

The researchers estimated the rate of superinfection in the study to be about 5 percent per year, a rate which is broadly equivalent to that found in previous studies of injecting drug users and chimpanzees, although they cautioned that the methods they used to detect superinfection were 'conservative,' meaning the actual rate could be higher.

The fact that all the cases occurred in men who were not on treatment is considered to be significant. An emerging theme of superinfection research is that the phenomenon appears to be more likely to occur in people not on treatment, or may even be restricted to that group.

For HIV-positive people, the message is a cautionary one: we have known for some years now that superinfection can and does occur; now we know that, especially for people not taking [antiretrovirals](#) [4]A medication or other substance which is active against retroviruses such as HIV., the risk is quite significant.

The potential negative impact of superinfection is significant. As well as rises in viral load, falling CD4 counts and the danger of acquiring a drug-resistant viral strain, another study presented as a poster at the San Francisco conference showed that superinfection can also lead to rapid disease progression.

The poster described an HIV patient who had initially had a good response to treatment, but became superinfected with another strain of HIV around one year later. The patient rapidly developed AIDS (3.4 years after initial infection) and died within six years.

— AIDSmap

- [Gay and bisexual men](#)
- [superinfection/reinfection](#)

### Links:

[1] <http://www.napwa.org.au/glossary/term/190>

[2] <http://www.napwa.org.au/glossary/term/109>

[3] <http://www.napwa.org.au/glossary/term/416>

[4] <http://www.napwa.org.au/glossary/term/122>