



# ACUTE HIV INFECTION

## WHAT IS ACUTE HIV INFECTION?

The amount of HIV in the blood gets very high within a few days or weeks after HIV infection. Some people get a flu-like illness. This first stage of HIV disease is called "acute HIV infection" or "primary HIV infection."

About half of the people who get infected don't notice anything. Symptoms generally occur within 2 to 4 weeks. The most common symptoms are fever, fatigue, and rash. Others include headache, swollen lymph glands, sore throat, feeling achy, nausea, vomiting, diarrhea, and night sweats.

It is easy to overlook the signs of acute HIV infection. They can be caused by several different illnesses. **If you have any of these symptoms and if there is any chance that you were recently exposed to HIV, talk to your health care provider about getting tested for HIV.**

## TESTING FOR ACUTE HIV INFECTION

The normal HIV blood test will come back negative for someone who was infected very recently. The test looks for antibodies produced by the immune system to fight HIV. It can take two months or more for these antibodies to be produced. See Fact Sheet 102 for more information.

However, the viral load test (See Fact Sheet 125) measures the virus itself. Before the immune system produces antibodies to fight it, HIV multiplies rapidly. Therefore, this test will show a high viral load during acute HIV infection.

A negative HIV antibody test and a very high viral load indicate recent HIV infection, most likely within the past two months. If both tests are positive, then HIV infection probably occurred a few months or longer before the tests. A special "detuned" version of the HIV antibody test is less sensitive. It detects only those infections that occurred at least four to six months before testing. It can be used to help identify cases of acute HIV infection.

## RISK OF IMMUNE DAMAGE

Some people think that there's not much harm done in the early stages of HIV infection. They believe that any damage to

their immune system will be cured by taking antiretroviral therapy (ART). **This is not true!**

Up to 60% of infection-fighting "memory" CD4 cells are infected during acute infection, and after 14 days of infection, up to half of all memory CD4 cells can be killed. Also, HIV quickly reduces the ability of the thymus gland to replace lost CD4 cells. The lining of the intestine is also damaged very quickly. This can all occur before a person tests positive for HIV.

## RISK OF INFECTING OTHERS

The number of HIV particles in the blood is much higher during acute HIV infection than later on. Exposure to the blood of someone in the acute phase of infection is more likely to result in infection than exposure to someone with long-term infection. One research study estimated that the risk of infection is approximately 20 times higher during acute HIV infection.

## TREATING ACUTE HIV INFECTION

At first, the immune system produces white blood cells that recognize and kill HIV-infected cells. This is called an "HIV-specific response." Over time, most people lose this response. Unless they use antiretroviral drugs (ARVs), their HIV disease will progress.

Guidelines for using HIV medications recommend waiting until the immune system shows signs of damage. However, starting ARVs during acute HIV infection might protect the HIV-specific immune response.

Researchers have studied people who start treatment during acute infection and then stop taking ARVs. One study showed that this treatment may delay the time until ART is needed. Researchers are doing more studies.

## PROS AND CONS OF TREATING ACUTE HIV INFECTION

Starting ART is a major decision. Anyone thinking about taking ARVs should carefully consider the benefits and disadvantages.

Taking ART changes your daily life. Missing doses of drugs makes it easier for the virus to develop resistance to medications, which limits future treatment options. Fact Sheet

405 has more information about the importance of taking ARVs correctly.

The medications are very strong. They have side effects that can be difficult to live with for a long time, and they can be very expensive.

Early treatment can protect the immune system from damage by HIV. Immune damage shows up as lower CD4 cell counts and higher viral loads. These are associated with higher rates of disease. Older people (over 40 years old) have weaker immune systems. They do not respond to ARVs as well as younger people.

However, not everyone with HIV gets sick right away. Someone with a CD4 cell count over 350 and a viral load under 20,000, even if they don't take ART, has about a 50/50 chance of staying healthy for 6 to 9 years. Fact Sheet 124 has more information on CD4 cell tests, and Fact Sheet 125 has information on the viral load.

At first, researchers believed that early treatment might allow a patient to stop taking ART after a period of controlling HIV. However, newer reports indicate that this is very unusual.

## THE BOTTOM LINE

It's not easy to identify people with acute HIV infection. Some people have no symptoms. If they have symptoms, several other diseases like the flu might be causing them.

**If you think you might be in the acute stage of HIV infection, tell your health care provider and get tested.** Talk to your health care provider about the possible advantages of starting ART during acute HIV infection.

Taking ARVs is a major commitment. Discuss the pros and cons of treatment with your health care provider and consider them carefully before making any decisions.

Revised September 5, 2006