

### What is AIDS?

AIDS stands for acquired immunodeficiency syndrome:

The **syndrome** is a set of problems related to health, which result in an illness in an advanced state. **Immunodeficiency** refers to the weakness of the immune system, which impedes facing up to specific diseases. And **acquired** means that anybody can acquire it, contract it or become infected by it.

#### So, what causes AIDS?

AIDS is caused by a virus called HIV: Virus of Human Immunodeficiency, whose uncontrollable propagation can lead to aforementioned advanced state. When a person is infected with HIV, their body will try to face up to the infection, producing special proteins called "antibodies", whose function is to destroy the HIV and prevent its propagation.

You widely speak of "HIV or AIDS Test", but this analysis is not entirely appropriate since the test known as "ELISA" is an analysis carried out to detect the presence of antibodies, which is specific indication of existence of HIV and not of the AIDS (See *infoVIHtal#32:HIV Analysis*).

Therefore being HIV-positive or live with HIV is not the same as having AIDS. Lots of people who live with HIV can do so for many years without progressing to AIDS.

As HIV continues propagating, the immune system weakens since it requires human cells to create new viruses. Viruses, parasites, fungi and bacteria, which would not cause serious problems in normal situations, could take advantage of the damaged immune system and spread all over the body. As a result, these illnesses are known as "opportunistic diseases or infections".

Therefore we could say that the constant propagation of HIV, the subsequent damage to the immune system caused by the HIV and opportunistic diseases that take advantage of the weakness of the immune system result in the AIDS syndrome.

#### How do you acquire AIDS?

As we have already mentioned "you do not acquire" AIDS, since it is a syndrome. Firstly you would have to be infected with HIV, which later could develop AIDS. HIV can be contracted or acquired through unprotected sexual relations with whoever is infected even though they might not look ill or have not obtained a positive result from the HIV analysis. Blood, vaginal fluid, semen and breast milk of the people who are infected with HIV contain enough amount of virus to infect other people.

Other common routes of transmission are:

- Sharing syringes (Needle-sharing injection drug use).
- Contact with maternal blood during child birth or later drinking breast milk (Breast-feeding).

There have been no recorded cases of HIV infections by saliva or tears so far. It has been shown that oral sex is the sexual relation with least risk, however it is not exempted from certain risk especially if there are small injuries in the mouth or the gums are bleeding, which can serve as the entry door to HIV or other sexually transmitted diseases (See *infoVIHtal#15:Oral sex*).

#### What should I do if I am HIV-positive?

You may be infected with HIV and not know it (See *infoVIHtal#1: Recently diagnosed*). Some people may suffer from fever, headaches, muscular and joint pain, stomachache, swollen glands or skin rashes for one or two weeks. These are similar to 'flu (influenza) symptoms, on the other hand others do not have any symptoms (See *infoVIHtal#6:Primary infection with HIV*).

Once the virus enters the organism, it will multiply during several weeks or months before the immune system reacts. During this period, the result of the HIV Test will not be positive, however the risk of transmission of the virus to other people exists. When the immune system reacts, it begins to produce antibodies and it is then, when you can obtain a positive result from an HIV Test. After these primary symptoms of "influenza", lots of HIV-positive people can keep on living healthily for ten years or more, although HIV can continue damaging the immune system during this period.

One of the ways to find out to what extent the immune system has been damaged, is to count the CD4 cells, which are also called "CD4+T cells or Co-operatives", which are an important part of the immune system. Perfectly healthy people have between 500 and 1,500 CD4 cells per microliter of blood (See *infoVIHtal#2: Immune system cells*).

Without treatment the CD4 cells count will probably reduce and symptoms related to HIV such as fever, sweats (at night), diarrhea and swollen glands will appear. If they are

produced because of the progression of HIV, they will last for some days and probably for several weeks.

### How can I find out if I have AIDS?

As we have already mentioned, HIV transforms into AIDS when the immune system is severely affected or damaged:

1. When the CD4 cells count is less than 200cells/mm<sup>3</sup> or the percentage of the CD4 cells over the total count of Lymphocytes is under 16%, it is established as a stage of AIDS.
2. When an opportunistic infection such as (see below) is developed:

- PCP (Pneumocystis pneumonia), a pulmonary infection.
- TB (Mycobacterium tuberculosis) (See *infoVIHtal #22: Tuberculosis*).
- KS (Kaposi's sarcoma), a type of skin cancer.
- CMV (Cytomegalovirus), an infection that generally affects the eyes.
- Candidiasis, an infection caused by fungi, which can affect the mouth, the throat or the vagina (See *infoVIHtal#29: Candidiasis, Thrush*).

Diseases related to AIDS also include serious weight loss, brain tumour and other health problems.

AIDS is developed differently in each individual. Some people die after several months of being infected while others lead a normal life for lots of years even after obtaining an official diagnosis of AIDS. A small percentage of HIV-positive people keep healthy for lots of years even without taking antiretroviral drugs (drugs that stop propagation of HIV).

### Can AIDS be cured?

There is currently no method of eliminating AIDS definitively, even though we have antiretrovirals that stop the reproduction of HIV and hold back the damage to the immune system (See *infoVIHtal#3: Anti-HIV Therapy*).

Other drugs can help to prevent the appearance of opportunistic infections (See *infoVIHtal#13: Prevent infections*), and the new antiretrovirals are powerful and have contributed to the reduction of the amount of opportunistic infections although some of them are very difficult to handle.