



CANCER AND HIV

WHICH CANCERS AFFECT PEOPLE WITH HIV?

Cancer is the uncontrolled growth of abnormal cells in the body. Cancer cells are called malignant cells. Malignant means bad and getting worse.

Cancer has been associated with AIDS from the beginning of the epidemic. A group of unusual cases of Kaposi's sarcoma (KS; fact sheet 511) – which normally shows up in older men – was identified in young men in Los Angeles.

Many types of cancer occur in people with HIV. Some cancers, called AIDS-defining cancers, are part of the official definition of AIDS. They include KS, Non-Hodgkin's Lymphoma (fact sheet 512), and severe cervical cancer.

The official Centers for Disease Control definition of AIDS includes people who test positive for HIV and who have one of the following cancers: invasive cervical cancer (fact sheet 510), non-Hodgkin lymphoma, or KS.

With the use of antiretroviral therapy (ART), the rates of AIDS-related cancers have dropped significantly. At the same time, people with HIV are at higher than average risk for several other cancers, including Hodgkin lymphoma and cancers of the anus, lung, liver, and skin. The number of cases of these other cancers is increasing in people with HIV.

DOES HIV INCREASE THE RISK OF CANCER?

Several studies found higher rates of some cancers in people with HIV, compared to the general population.

Many factors could explain this: People with HIV are living longer. Older age is linked to higher rates of cancer.

- People with HIV have a high rate of smoking tobacco, which contributes to several types of cancer. Recent studies show that smokers with HIV lose more years of life from smoking than from HIV. See fact sheet 803 for more information.

- HIV infection weakens the immune system. This might allow some cancer cells to multiply.
- Some cancers (such as KS and on-Hodgkin's lymphoma) appear to be linked to the lowest (nadir) CD4 count a person had.
- Several cancers are linked to viral infections. These are shown in the following table.

CANCERS	VIRUSES
Kaposi's Sarcoma (fact sheet 508)	Human herpes virus 8
Non-Hodgkin's Lymphoma (fact sheet 512)	Human herpes virus 8, Epstein-Barr virus
Cervical and anal cancers (fact sheet 510)	Human Papilloma virus (HPV)
Hodgkin's Disease	Epstein-Barr virus
Skin cancers (some)	Human papilloma virus
Liver cancer	Hepatitis B, Hepatitis C

People with HIV have higher rates of these infections than the general population.

IS CANCER A SIGN OF ACCELERATED AGING IN PEOPLE WITH HIV?

Some cancers appear in people with HIV at a younger age than in the general population. Some people think that HIV accelerates aging, and that cancers are one sign of this.

A careful study suggested that this is not true for most cancers. The study found that most people with HIV are studied at younger ages than the general population. Most people with HIV are between ages 30 and 55, so cancers seem to occur at younger ages. For the general population, increasing age is linked to higher rates of cancer. As the AIDS population ages, the age of cancer cases will increase. However, people with HIV do appear to develop anal cancer, lung cancer, and Hodgkin's lymphoma at a younger age. This may be due to the effects of HIV on these cancers. It could also be

caused by early exposure to risk factors for these types of cancer, such as earlier age of starting smoking or sexual activity (leading to HPV infection). Also, people with HIV are monitored more carefully from a younger age, so cancers may be detected earlier.

HOW CAN PEOPLE WITH HIV REDUCE THEIR RISK OF CANCER?

1. Reduce or better yet, stop smoking. Smoking is linked to lung cancer, but also to head and neck cancers, kidney and colon cancer. It may also increase the risk of cervical cancer.
2. Reduce consumption of alcohol, which can contribute to liver cancer.
3. If appropriate, get vaccinated against human papillomavirus (HPV), and hepatitis A & B.
4. Get tested for hepatitis B and C, which increase the risk of liver cancer. If you have hepatitis, be sure your health care provider monitors these infections. Most cases of hepatitis C infection can be cured, reducing the risk of cancer.
5. Get annual cervical and anal Papanicolaou (PAP) tests. Anal testing should be done for both men and women. However, it is not generally available. Talk to your health care provider.
6. Follow standard guidelines for breast, colon, and prostate exams.
7. Use sunscreen and avoid overexposure to the sun.

FOR MORE INFORMATION

- Anal cancer: <http://id.medicine.ucsf.edu/analcancerinfo/>
- Cervical cancer: <http://www.cancer.gov/cancertopics/types/cervical>
- Hodgkin Lymphoma: <http://www.cancer.gov/cancertopics/types/hodgkin>
- Non-Hodgkin lymphoma: www.cancer.gov/cancertopics/types/non-hodgkin
- Liver cancer: <http://www.cancer.gov/cancertopics/types/liver>
- Skin Cancer: <http://www.cancer.gov/cancertopics/types/skin>

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