Kaposi Sarcoma Causes, Risk Factors, and Prevention

Learn what is known about Kaposi sarcoma causes, risk factors, and prevention.

Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Learn about the risk factors for Kaposi sarcoma.

- What Causes Kaposi Sarcoma?

Prevention

There is no way to prevent Kaposi sarcoma. But there are things you can do that might lower your risk for it. Learn more.

- Can Kaposi Sarcoma Be Prevented?

What Causes Kaposi Sarcoma?

Kaposi sarcoma (KS) is caused by infection with a virus called the **Kaposi sarcoma-associated herpesvirus** (KSHV), also known as human herpesvirus 8 (HHV8). KSHV is in the same family as Epstein-Barr virus (EBV), the virus that causes infectious mononucleosis (mono) and is linked to several types of cancer.

In KS, the cells that line blood and lymphatic vessels (called endothelial cells) are infected with KSHV. The virus brings genes into the cells that can cause the cells to divide too much and to live longer than they should. These same genes may cause the endothelial cells to form new blood vessels and may also increase the production of certain chemicals that cause inflammation. These types of changes may eventually turn them into cancer cells.

KSHV infection is much more common than KS. Most people infected with this virus do not get KS and many will never show any symptoms. Infection with KSHV is needed to cause KS, but in most cases infection with KSHV alone does not lead to KS. Most people who develop KS have the KSHV and also have a weakened immune system, due to HIV infection, organ transplant, being older, or some other factor.

The number of people infected with KSHV varies in different places around the world. In the United States, studies have found that less than 10% of people are infected with KSHV. The infection is more common in people infected with HIV than in the general population in the United States. KSHV infection is also more common in men who have sex with men than in men who only have sex with women.

In some areas of Africa, up to 80% of the population shows signs of KSHV infection. In these areas the virus seems to spread from mother to child. KSHV is also found in saliva, semen, and vaginal fluid, which may be some ways it is passed to others.

For more on infections and their role in cancer, see Infections That Can Lead to Cancer[1].

Hyperlinks

1. www.cancer.org/cancer/risk-prevention/infections.html

References

Brown EE, Whitby D, Vitale F, et al. Virologic, hematologic, and immunologic risk factors for classic Kaposi sarcoma. *Cancer.* 2006;107:22822290.

Engels EA, Atkinson JO, Graubard BI, et al. Risk factors for human herpesvirus 8 infection among adults in the United States and evidence for sexual transmission. *J Infect Dis*. 2007;196:199207.

Iscovich J, Boffetta P, Franceschi S, Azizi E, Sarid R. Classic Kaposi sarcoma:

Epidemiology and risk factors. *Cancer.* 2000;88:500517.

Minhas V, Wood C. Epidemiology and Transmission of Kaposi's Sarcoma-Associated Herpesvirus. Zheng Z-M, ed. *Viruses*. 2014;6(11):4178-4194.

Yarchoan R, Uldrick TS, Polizzotto MN, Little RF. Ch. 117 - HIV-associated malignancies. In: *DeVita, Hellman, and Rosenberg's Cancer: Principles & Practice of Oncology*. 10th ed. Philadelphia: Lippincott Williams & Wilkins; 2015.

Last Revised: April 19, 2018

Can Kaposi Sarcoma Be Prevented?

Kaposi sarcoma (KS) is caused by the Kaposi sarcoma--associated herpesvirus (KSHV). There are no vaccines at this time to protect people against KSHV. For now, preventing KS depends on reducing the chance of becoming infected with KSHV and reducing the chance that people who are infected with KSHV will develop KS.

Most cases of KS in the United States occur in people with HIV and AIDS. Taking measures to avoid becoming infected with HIV could prevent most cases of KS in this country.

> Since HIV can be spread through sex, avoiding unprotected sex with people infected with HIV could help prevent these infections. Many people with HIV don't know that they are infected, so many public health workers recommend using a

needles and injection supplies can help protect them. In some areas, there are programs to make sure that drug users can get clean needles and syringes.

- HIV-infected mothers can pass the virus to their babies during pregnancy, delivery, or breastfeeding. Treating the mothers and infants with anti-HIV drugs and avoiding breastfeeding can greatly reduce the risk of these infections.
- In the past, blood product transfusions and organ transplants were responsible for some HIV infections. As a result of improved testing for HIV, there is now a very low risk of HIV infection from blood products or organ transplants in the United States.

For people who are infected with HIV and KSHV, tak from blpothlht mantvorgan transpl j ET BT7g.ee8

Curtiss P, Strazzulla LC, Friedman-Kien AE. An Update on Kaposi's Sarcoma: Epidemiology, Pathogenesis and Treatment. *Dermatology and Therapy*. 2016;6(4):465-470.

Tian R, Liao Q, and Chen X. Prevention and Treatment of KSHV-associated Diseases with Antiviral Drugs. *Virologica Sinica*. 2008; 23 (6):486-495.

Last Revised: April 19, 2018

Written by

The American Cancer Society medical and editorial content team (https://www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as editors and translators with extensive experience in medical writing.