Nasal Cavity and Paranasal Sinus Cancer Causes, Risk Factors, and Prevention

Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Learn more about the risk factors for nasal cavity and paranasal sinus cancer.

- What Are the Risk Factors for Nasal Cavity and Paranasal Sinus Cancers?
- Do We Know What Causes Nasal Cavity and Paranasal Sinus Cancers?

Prevention

There is no way to completely prevent cancer. But there are things you can do that might lower your risk. Learn more.

- Can Nasal Cavity and Paranasal Sinus Cancers Be Prevented?

What Are the Risk Factors for Nasal Cavity and Paranasal Sinus Cancers?

A risk factor is anything that changes your chances of getting a disease like cancer. Different cancers have different risk factors. For example, too much exposure to sunlight is a risk factor for skin cancer, and smoking is a risk factor for many different kinds of cancers.

But risk factors don’t tell us everything. Having a risk factor, or even several, does not mean that you will get the disease. Many people with risk factors never develop these
cancers, while people with these cancers may have few or no known risk factors.

Researchers have found a few risk factors that make a person more likely to develop nasal cavity and paranasal sinus cancer. Most of these are exposures to inhaled substances in the workplace.

**Workplace exposures**

People who work in certain jobs are more likely to develop nasal cavity and paranasal sinus cancer. The increased risk seems to be related to breathing in certain substances while at work, such as:

- Wood dusts from carpentry (such as furniture and cabinet builders), sawmills, and other wood-related industries
- Dusts from textiles (textile plants)
- Leather dusts (shoemaking)
- Flour (baking and flour milling)
- Nickel and chromium dust
- Mustard gas (a poison used in chemical warfare)
- Radium (a radioactive element rarely used today)

These workplace exposures have less clear links to nasal and paranasal sinus cancer:

- Glues
- Formaldehyde
- Organic solvents

**Smoking**

Some studies have found that smoking might increase the risk of nasal cavity cancer.

**Human papilloma virus (HPV) infection**

The human papilloma virus (HPV) is a group of over 100 related viruses. They are called *papilloma viruses* because some of them cause a type of benign growth called a *papilloma*, which is more commonly known as a wart. Some types of HPV can cause cancers of the cervix, vagina, anus, vulva, penis, mouth, and throat. HPV has been detected in some cancers of the nasal cavity and paranasal sinuses. These cancers are linked to a better outcome. However, cancers of the nasal cavity or sinuses linked to
HPV are rare.

**Hereditary retinoblastoma**

People with the hereditary form of [retinoblastoma](/cancer/types/retinoblastoma/overview), a type of eye cancer that typically develops in children, have an increased risk of nasal cavity cancer if their retinoblastoma was treated with radiation.

- References

[See all references for Nasal Cavity and Paranasal Sinus Cancers](/cancer/types/retinoblastoma/overview)
Gene changes related to these cancers usually occur during life rather than before birth like inherited mutations do. These acquired mutations are likely cause most nasal cavity and paranasal sinus cancers. They may result from events such as exposure to radiation or cancer-causing chemicals. Sometimes they occur for no apparent reason.

Not all cancers have the same gene changes. So far, few specific gene changes have been found in nasal cavity and paranasal sinus cancers. Several different types of cancer can start in these areas, each of which may have different changes.

Can Nasal Cavity and Paranasal Sinus Cancers Be Prevented?

Not all nasal cavity and paranasal sinus cancers can be prevented, but the risk of developing these cancers can be greatly reduced by avoiding certain risk factors, such as workplace exposures to certain substances. Fortunately, awareness of the possible danger from these exposures has increased, and workplace safety measures to help protect people from them have improved. Still, if you are working with any of the substances listed in the section What Are the Risk Factors for Nasal Cavity and Paranasal Sinus Cancers?, it’s important for you to find out if you are being protected from harmful exposure.

Cigarette smoking is another avoidable risk factor for cancers of the nasal cavity and sinuses.

Most people with cancer of the nasal cavity and paranasal sinuses have no known risk factors, so there is currently no way to prevent most of these cancers.
References
See all references for Nasal Cavity and Paranasal Sinus Cancers

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