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*EASY READING*

# If You Have Nasal Cavity or Paranasal Sinus Cancer

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## What are nasal cavity and paranasal sinus cancers?

Nasal cavity and paranasal sinus cancers start in the head and neck area. Cancer that starts in the nasal cavity (the opening behind the nose) is called **nasal cavity cancer**. Cancer that starts in the paranasal sinuses (air-filled spaces in the bones around the nose) is called **paranasal sinus cancer**. These cancers start when cells in the nasal cavity and paranasal sinus grow out of control and crowd out normal cells.

Cancer can start any place in the body. Cancer that starts in the nasal cavity or paranasal sinus area can spread to other parts of the body, such as the lungs or bones, and grow there. When cancer cells do this, it's called metastasis and the cancer cells in the new place look just like the ones from where it started. When nasal cavity or paranasal sinus cancer spreads, it's still called nasal cavity or paranasal sinus cancer. It's not called lung cancer unless it starts from cells in the lung.

The information after the pictures below is about nasal cavity and paranasal sinus cancers.

**Ask your doctor to use these pictures to show you where the cancer is.**

### **The nasal cavity**

### **The sinuses**

**Explore the 3D interactive color model to learn more.**

## **Different types of nasal cavity and paranasal sinus cancer**

The nasal cavity and the paranasal sinuses are lined by a layer of mucus-producing tissue (mucosa). The mucosa has many different types of cells that include squamous cells, glandular cells, nerve cells, and infection-fighting cells. Cancer can start from any of these cells.

- The most common type of nasal cavity or paranasal sinus cancer is called **squamous cell carcinoma (cancer)**.
- Other less common types are adenocarcinoma (starts in the glands)
- Esthesioneuroblastoma (starts in the nerve that helps you smell)
- Lymphoma (starts in infection-fighting cells)

### **Questions to ask the doctor**

- Why do you think I have cancer in the nasal cavity or in the sinuses around my nose?
- Is there a chance I don't have cancer?
- Would you please write down the kind of cancer you think I might have?
- What will happen next?

## **How does the doctor know I have nasal cavity or paranasal sinus cancer?**

These cancers may not be found until they [cause problems](#)<sup>1</sup> that make the person go to the doctor. Sometimes changes are seen during a routine visit to the doctor or dentist.

You may be sent to see a doctor who focuses on diseases of the ear, nose, and throat (called an ENT doctor, an otolaryngologist, or a head and neck surgeon).

The doctor will ask you questions about your health, your smoking and drinking alcohol history, any exposures to chemicals in your workplace, and will do [exams and tests](#)<sup>2</sup> to find out what is causing your symptoms. If signs are pointing to nasal cavity or paranasal sinus cancer, you might need more tests. Here are some of the [tests you might need](#)<sup>3</sup>:

**Complete head and neck exam:** The doctor will check your head and neck area, looking and feeling for any abnormal areas. The lymph nodes in your neck will be felt for any changes. Because some parts of the nose, mouth, and throat are not easily seen, the doctor may use mirrors, lights, and/or special thin lighted tubes (fiber-optic scopes) to look at these areas. Since people with nasal cavity or paranasal sinus cancer also have a higher risk for other cancers in the head and neck region, all areas of the head and neck are carefully looked at and checked for signs of cancer.

**Biopsy:** For this test, the doctor takes out a small piece of tissue, with surgery or a needle, where the cancer seems to be. The tissue is checked for cancer cells. This is the best way to know for sure if you have cancer.

**Gene and protein tests:** The cancer cells in the biopsy tissue might be tested for genes or proteins such as PD-L1. Knowing which genes or proteins your cancer has can help the doctor decide if treatments like [immunotherapy](#)<sup>4</sup> might help.

**CT scan:** This is also called a [CAT scan](#)<sup>5</sup>. It's a special kind of x-ray that takes detailed pictures to see where the cancer is growing in the nasal cavity or paranasal sinus area. It can also help see if the cancer has spread to the lymph nodes, lungs, or other organs. CT scans can also be used to help do a biopsy (see above).

**MRI scan:** [MRI scans](#)<sup>6</sup> use radio waves and strong magnets instead of x-rays to take detailed pictures. MRIs are used to learn more about the size of the cancer and if it has spread to nearby structures or other areas of the body.

**X-rays:** X-rays may be done of your chest to see if the cancer has spread to the lungs. You might also get an x-ray of the head area to look closely at the sinuses.

**PET scan:** A [PET scan](#)<sup>7</sup> uses a special kind of sugar that can be seen inside your body with a special camera. If there is cancer, this sugar shows up as "hot spots" where the cancer is found. This test can help show if the cancer might have spread.

**Dental exam:** Your dentist will probably do a complete exam and maybe some x-rays of

your teeth as well as remove any bad teeth before any radiation is given because radiation can damage the saliva (spit) glands and cause dry mouth. Bad teeth and dry mouth can increase the chances of cavities and infection.

**Hearing test:** The most common chemo drug used to treat nasal cavity and paranasal sinus cancer, cisplatin, can cause ringing in the ears or even hearing loss. You might have your hearing checked (with an audiogram) before starting treatment and your chemotherapy might be changed if your hearing is poor to start with.

**Nutrition and speech tests:** A nutritionist might check your nutrition status before, during, and after treatment to try and keep your body weight and protein levels as normal as possible. A speech therapist might test how well you swallow and speak. They might give you exercises to do to help strengthen muscles so that you can eat and talk normally after finishing treatment.

**Blood tests:** Blood tests are not used to find cancer of the nasal cavity or paranasal sinus, but they can tell the doctor more about your overall health, like your kidney or liver function.

### Questions to ask the doctor

- What tests will I need to have?
- Who will do these tests?
- Where will they be done?
- Who can explain them to me?
- How and when will I get the results?
- Who will explain the results to me?
- What do I need to do next?

### How serious is my cancer?

If you have nasal cavity or paranasal sinus cancer, the doctor will want to find out [how far it has spread](#)<sup>8</sup>. This is called staging. Knowing the stage will help your doctor decide what type of treatment is best for you.

The stage describes the spread of the cancer in the place it started. It also tells if the cancer has spread to other nearby organs or to organs farther away.

Your cancer can be stage 0, 1, 2, 3, or 4. The lower the number, the less the cancer has

spread. A higher number, like stage 4, means a more serious cancer that has spread from where it started. Be sure to ask the doctor about the cancer's stage and what it means for you.

### Questions to ask the doctor

- Do you know the stage of the cancer?
- If not, how and when will you find out the stage of the cancer?
- Would you explain to me what the stage means in my case?
- Based on the stage of the cancer, how long do you think I'll live?
- What will happen next?

### What kind of treatment will I need?

**It is best to stop smoking completely before starting treatment. Smoking during cancer treatment can mean more side effects and not getting the full benefit of treatment. Smoking can also raise the risk of the cancer coming back after treatment as well as the risk of getting a new cancer. [Quitting smoking](#)<sup>9</sup> for good is the best way to improve your chances of survival.**

There are many ways to treat cancer of the nasal cavity and paranasal sinus:

- [Surgery](#)<sup>10</sup> and [radiation](#)<sup>11</sup> are used to treat only the cancer. They do not affect the rest of the body.
- [Chemotherapy](#)<sup>12</sup>, [targeted drug therapy](#)<sup>13</sup>, and [immunotherapy](#)<sup>14</sup> go through the whole body. They can reach cancer cells almost anywhere in the body.

You might get more than one type of treatment. For example, chemotherapy or targeted drug therapy might be given at the same time as radiation.

The plan that's best for you will depend on:

- Where the cancer started growing – the nasal cavity (the opening behind the nose) or the paranasal sinuses (air-filled spaces in the bones around the nose)
- The stage of the cancer
- The chance that a type of treatment will cure the cancer or help in some way
- How treatment will affect the way you talk, breathe, and eat
- Your age

- Other health problems you have
- How you feel about the treatment and the side effects that come with it

### **Surgery for nasal cavity cancer**

Surgery may be used to take out the cancer and an edge of healthy tissue around it. In some cases, all or part of the septum (the middle wall separating the nasal cavity) or the nearby bone may need to be removed. Surgery may also be used to take out lymph nodes in the neck that might have cancer.

Surgery can also be used to help you do things that the cancer may have changed. For instance, if you can't swallow because of the tumor, surgery may be done to put in a feeding tube. Some surgeries can even help rebuild part of the nose.

### **Surgery for paranasal sinus cancer**

Surgery may be used to take out the cancer and a small amount of healthy tissue around it. In some cases, all or part of the paranasal sinus (air filled space in the bone around the nose) or the bone near the eye socket, roof of the mouth, or nose may need to be removed. Surgery may also be used to take out lymph nodes in the neck that might have cancer.

Surgery can also be used to help you do things that the cancer may have changed. For instance, if you can't swallow because of the tumor, surgery may be done to put in a feeding tube. Some surgeries can even help rebuild part of the roof of the mouth to help you eat or the eye socket.

### ***Side effects of surgery***

Any type of surgery can have risks and side effects. Ask the doctor what you can expect. If you have problems, let your doctors know. Doctors who treat people with nasal cavity and paranasal sinus cancers should be able to help you with any problems that come up.

### **Radiation treatments**

Radiation uses high-energy rays (like x-rays) to kill cancer cells. It can be given alone or along with chemotherapy. Radiation can also be used to help with symptoms such as pain, bleeding, trouble swallowing, or other problems that happen if the cancer has

grown very large or has spread to other areas.

There are 2 main ways radiation can be given.

- It can be aimed at the cancer from a machine outside the body. This is called **external beam radiation**.
- **Brachytherapy** is another kind of radiation. To do this, the doctor uses an endoscope (a long, flexible tube) to put small radioactive pieces very close to the cancer inside the body.

### ***Side effects of radiation treatments***

If your doctor suggests radiation treatment, ask what side effects might happen. Side effects depend on the type of radiation that's used and the part of your body that's treated. The most common side effects are:

- Skin changes where the radiation is given
- Feeling very tired (fatigue)
- Hoarse voice
- Taste changes
- Mouth and throat sores
- Dry mouth
- Trouble swallowing or eating

Most side effects get better after treatment ends and many can be treated. Some might last longer. Ask your cancer care team what you can expect.

### **Chemo**

Chemo, short for chemotherapy, is the use of drugs to fight cancer. The drugs may be given into a vein or taken as pills. These drugs go into the blood and spread through the body. Chemo is given in cycles or rounds. Each round of treatment is followed by a break. This gives the body time to recover. Most of the time, 2 or more chemo drugs are given. Treatment often lasts for many months.

For nasal cavity and paranasal sinus cancer, chemo is often given along with radiation. This is called **chemoradiation**.

### ***Side effects of chemo***

Chemo can make you feel tired, sick to your stomach, and make your hair fall out. But most of these problems go away after treatment ends. Other side effects like hearing problems or nerve damage can last a long time.

There are ways to treat most chemo side effects. If you have side effects, tell your cancer care team so they can help.

### **Targeted drug therapy**

Targeted therapy drugs may be used for nasal cavity or paranasal sinus cancer. These drugs affect mainly cancer cells and not normal cells in the body. They may work even if other treatment doesn't. Since they don't work the same as chemo, these drugs often have different (sometimes less severe) side effects.

### ***Side effects of targeted drug therapy***

Side effects of targeted drug therapy depend on which drug is used. These drugs might cause a headache or diarrhea. They can also cause nail changes or a skin rash of the face and upper chest. These side effects usually go away after treatment ends.

There are ways to treat most of the side effects caused by targeted drug therapy. If you have side effects, talk to your cancer care team so they can help.

### **Immunotherapy**

Immunotherapy is treatment that either boosts your own immune system or uses man-made versions of parts of the immune system that attack the cancer cells. Immunotherapy drugs may be given into a vein.

### ***Side effects of immunotherapy***

Immunotherapy can cause many different side effects, depending on which drug is used. These drugs may make you feel tired, sick to your stomach, or cause a rash. Most of these problems go away after treatment ends.

More serious side effects might happen if the immune system starts attacking normal parts of the body, which can cause serious problems in many organs. You may need to stop the immunotherapy drug and take steroids to treat this side effect.

There are ways to treat most of the side effects caused by immunotherapy. If you have side effects, talk to your cancer care team so they can help.

## Clinical trials

Clinical trials are research studies that test new drugs or other treatments in people. They compare standard treatments with others that could be better.

Clinical trials are one way to get the newest cancer treatment. They are the best way for doctors to find better ways to treat cancer. If your doctor can find one that's studying the kind of cancer you have, it's up to you whether to take part. And if you do sign up for a clinical trial, you can always stop at any time.

If you would like to be in a clinical trial, start by asking your doctor if your clinic or hospital conducts clinical trials. See [Clinical Trials](#)<sup>15</sup> to learn more.

## What about other treatments I hear about?

When you have cancer you might hear about other ways to treat the cancer or treat your symptoms. These may not always be standard medical treatments. These treatments may be vitamins, herbs, special diets, and other things. You may wonder about these treatments.

Some of these are known to help, but many have not been tested. Some have been shown not to help. A few have even been found to be harmful. Talk to your doctor about anything you're thinking about using, whether it's a vitamin, a diet, or anything else.

## Questions to ask the doctor

- What treatment do you think is best for me?
- What's the goal of this treatment? Do you think it could cure the cancer?
- Will treatment include surgery? If so, who will do the surgery?
- What will the surgery be like?
- Will I be able to talk normally after surgery?
- Will I need other types of treatment, too?
- What's the goal of these treatments?
- What side effects could I have from these treatments?
- What can I do about side effects that I might have?
- Is there a clinical trial that might be right for me?
- What about special vitamins or diets that friends tell me about? How will I know if

they are safe?

- How soon do I need to start treatment?
- What should I do to be ready for treatment?
- Is there anything I can do to help the treatment work better?
- What's the next step?

## What will happen after treatment?

You'll be glad [when treatment is over](#)<sup>16</sup>. For years after treatment ends, you still will see your cancer doctor. Be sure to go to all of these follow-up visits. You will have exams, blood tests, and maybe other tests to see if the cancer has come back.

Follow-up doctor visits after treatment may be needed as often as every few months for the first year, every 3 to 6 months during the 2nd year, and a little less often after that. During these visits, your doctor will ask about any symptoms you're having, if you are using any products like [cigarettes or chewing tobacco](#)<sup>17</sup>, if you are drinking [alcohol](#)<sup>18</sup>, and will physically examine you. Endoscopy exams, blood tests, dental exams, or imaging tests (like MRI or CT scans) may be done to look for signs of cancer or treatment side effects. Your doctor will tell you which tests should be done and how often based on your cancer's stage and the type of treatment you had.

Having cancer and dealing with treatment can be hard, but it can also be a time to look at your life in new ways. You might think about things you could do to improve your health. Call us at 1-800- 227-2345 or talk to your doctor to find out what you can do to feel better or to help you quit smoking.

You can't change the fact that you have cancer. What you can change is how you live the rest of your life – making healthy choices and feeling as well as you can.

## Hyperlinks

1. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/signs-symptoms.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/signs-symptoms.html)
2. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/how-diagnosed.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/how-diagnosed.html)
3. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/how-diagnosed.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/how-diagnosed.html)

4. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/immunotherapy.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/immunotherapy.html)
5. [www.cancer.org/treatment/understanding-your-diagnosis/tests/ct-scan-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/ct-scan-for-cancer.html)
6. [www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html)
7. [www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html)
8. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/staging.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/detection-diagnosis-staging/staging.html)
9. [www.cancer.org/healthy/stay-away-from-tobacco.html](http://www.cancer.org/healthy/stay-away-from-tobacco.html)
10. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/surgery.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/surgery.html)
11. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/radiation-therapy.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/radiation-therapy.html)
12. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/chemotherapy.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/chemotherapy.html)
13. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/targeted-therapy.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/targeted-therapy.html)
14. [www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/immunotherapy.html](http://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating/immunotherapy.html)
15. [www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html)
16. [www.cancer.org/treatment/survivorship-during-and-after-treatment.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment.html)
17. [www.cancer.org/cancer/cancer-causes/tobacco-and-cancer.html](http://www.cancer.org/cancer/cancer-causes/tobacco-and-cancer.html)
18. [www.cancer.org/cancer/cancer-causes/diet-physical-activity/alcohol-use-and-cancer.html](http://www.cancer.org/cancer/cancer-causes/diet-physical-activity/alcohol-use-and-cancer.html)
19. <http://www.cancer.org>

## Words to know

**Biopsy** (BY-op-see): taking out a small piece of tissue to see if there are cancer cells in it

**Metastasis** (muh-TAS-tuh-sis): cancer cells that have spread from where they started to other places in the body

**Nasal cavity**: the inside of the nose above the roof of the mouth

**Nasopharynx** (NAY-zoh-FAIR-ingks): the part of the throat that's behind the nose

## How can I learn more?

We have a lot more information for you. You can find it online at [www.cancer.org](http://www.cancer.org) (<http://www.cancer.org>)<sup>19</sup>. Or, you can call our toll-free number at 1-800-227-2345 to talk to one of our cancer information specialists.

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## Written by

The American Cancer Society medical and editorial content team ([www.cancer.org/cancer/acs-medical-content-and-news-staff.html](http://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 journalists, editors, and translators with extensive experience in medical writing.

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