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# Salivary Gland 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 salivary gland cancer.

- [What Are the Risk Factors for Salivary Gland Cancer?](#)
- [Do We Know What Causes Salivary Gland Cancer?](#)

## Prevention

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

- [Can Salivary Gland Cancer Be Prevented?](#)

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# What Are the Risk Factors for Salivary Gland Cancer?

A risk factor is anything that affects your chance of getting a disease such as cancer. Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a person's age or family history, can't be changed.

But having a risk factor, or even many risk factors, does not mean that you will get the disease. And many people who get the disease may have few or no known risk factors.

A few risk factors are known to make a person more likely to develop salivary gland cancer.

## **Older age**

The risk of salivary gland goes up as people get older.

## **Male gender**

Salivary gland cancers are more common in men than in women.

## **Radiation exposure**

Radiation treatment to the head and neck area for other medical reasons increases your risk of salivary gland cancer.

Workplace exposure to certain radioactive substances may also increase the risk of salivary gland cancer.

## **Family history**

Very rarely, members of some families seem to have a higher than usual risk of developing salivary gland cancers. But most people who get salivary gland cancer do not have a family history of this disease.

## **Other possible risk factors**

### **Certain workplace exposures**

Some studies have suggested that people who work with certain metals (nickel alloy dust) or minerals (silica dust), and people who work in asbestos mining, plumbing, rubber products manufacturing, and some types of woodworking may be at increased risk for salivary gland cancer, but these links are not certain. The rarity of these cancers makes this hard to study.

## Tobacco and alcohol use

Tobacco and alcohol can increase the risk for several cancers of the head and neck area, but they have not been strongly linked to salivary gland cancers in most studies.

## Diet

Some studies have found that a diet low in vegetables and high in animal fat may increase the risk of salivary gland cancer, but more research is needed to confirm this possible link.

## Cell phone use

One study has suggested an increased risk of parotid gland tumors among heavy cell phone users. In this study, most of the tumors seen were benign (not cancer). Other studies looking at this issue have not found such a link. Research in this area is still in progress.

## References

See all references for Salivary Gland Cancer ([www.cancer.org/cancer/salivary-gland-cancer/references.html](http://www.cancer.org/cancer/salivary-gland-cancer/references.html))

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# Do We Know What Causes Salivary Gland Cancer?

Although we know a few things that can raise a person's [risk of salivary gland cancer](#), it's not clear exactly what causes most of these cancers.

Cancer is caused by changes in the DNA inside of cells. DNA is the chemical in each of our cells that makes up our *genes* – the instructions for how our cells function. We

usually look like our parents because they are the source of our DNA. However, DNA affects more than how we look. It also can influence our risk for developing certain diseases, such as some kinds of cancer.

Some genes help control when cells grow, divide into new cells, and die. Genes that help cells grow, divide, and stay alive are called *oncogenes*. Genes that slow down cell division or cause cells to die at the right time are called *tumor suppressor genes*. Cancers can be caused by DNA changes that turn on oncogenes or turn off tumor suppressor genes. Changes in several different genes are usually needed for a cell to become cancer.

Researchers don't yet know all of the DNA changes that result in salivary gland cancer, but they have found some gene changes that are often found in these cancers.

Salivary gland cancer does not usually run in families, so most of the DNA changes that lead to this cancer are not likely to be inherited from a person's parents. Instead, these changes probably take place during a person's lifetime. Sometimes these changes might just be random events that happen inside cells, without having an outside cause. But sometimes the cause might be something specific, like exposure to radiation or certain carcinogens (cancer-causing chemicals).

## References

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# Can Salivary Gland Cancer Be Prevented?

Because we don't know what causes most salivary gland cancers, we don't yet know how to prevent many of them.

Avoiding some of the possible [risk factors](#) (such as tobacco, excess alcohol use, and unhealthy diets) *might* slightly lower the likelihood of developing salivary gland cancer, but no one knows for sure. However, we do know that avoiding these factors can help reduce your risk of other, more common cancers, as well as many other diseases.

For people who work in certain industries linked with an increased risk of salivary gland cancer, taking precautions to protect themselves might help lower their risk.

## References

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