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Lung Carcinoid Tumor 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 lung carcinoid tumors.

- [Risk Factors for Lung Carcinoid Tumors](#)
- [What Causes Lung Carcinoid Tumors?](#)

Prevention

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

- [Can Lung Carcinoid Tumors Be Prevented?](#)

Risk Factors for Lung Carcinoid Tumors

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 known risk factor, or even several risk factors, does not mean that you will

get the disease. And some people who get the disease may have few or no known risk factors.

Not much is known about why lung carcinoid tumors develop in some people but not in others. Risk factors for lung carcinoid tumors include:

Gender

Lung carcinoids occur more often in women than in men. The reasons for this are not known.

Race/ethnicity

Lung carcinoids are more common in whites than in African Americans, Asian Americans, or Hispanics/Latinos.

Age

These tumors are usually found in people about 45-55 years old, which is slightly younger than the average age for other types of lung cancer. But carcinoids can occur in people of almost any age, including children and adolescents.

Multiple endocrine neoplasia type 1

People with multiple endocrine neoplasia type 1 (MEN1), an inherited syndrome, are at high risk for tumors in certain endocrine organs, such as the pancreas and the pituitary and parathyroid glands. These people also seem to be at increased risk for lung carcinoid tumors.

Family history

Most people with lung carcinoid tumors do not have a family history of this type of cancer, but having others in your family who had lung carcinoid tumors can increase your risk. In rare cases, several family members have been diagnosed with this cancer. The overall risk is still low because this cancer is so uncommon.

Tobacco smoke

Typical lung carcinoid tumors do not seem to be linked with [smoking](#)¹ or with any known chemicals in the environment or workplace. But some studies have found that atypical lung carcinoids may be more common in people who smoke.

Hyperlinks

1. <https://www.cancer.org/content/cancer/en/cancer/cancer-causes/tobacco-and-cancer.html>

References

Hilal T. Current understanding and approach to well differentiated lung neuroendocrine tumors: an update on classification and management. *Therapeutic Advances in Medical Oncology*. 2017;9(3):189-199. doi:10.1177/1758834016678149.

Oliveira AM, Tazelaar HD, Wentzlaff KA, et al. Familial pulmonary carcinoid tumors. *Cancer*. 2001; 91:2104.

Thomas CF, Jett JR, Strosberg JR. Lung neuroendocrine (carcinoid) tumors: Epidemiology, risk factors, classification, histology, diagnosis, and staging. UpToDate website. <https://www.uptodate.com/contents/lung-neuroendocrine-carcinoid-tumors-epidemiology-risk-factors-classification-histology-diagnosis-and-staging>. Updated Feb. 26, 2018. Accessed July 9, 2018.

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What Causes Lung Carcinoid Tumors?

Not much is known about what causes lung carcinoid tumors. Researchers have learned a lot about how certain risk factors like cancer-causing chemicals or radiation can cause changes in lung cells that lead to carcinomas, the more common type of lung cancer. But these factors are not thought to play a large role in the development of lung carcinoid tumors.

Carcinoid tumors probably develop from tiny clusters of neuroendocrine cells called

carcinoid tumorlets in the lung airways. Tumorlets are sometimes found unexpectedly in lung biopsies done to treat or diagnose other conditions. In the lab, tumorlets resemble carcinoid tumors, except that they are much smaller – less than 5 mm (about ¼ inch) across. Most tumorlets never grow any bigger, but some may eventually become carcinoid tumors.

If tumorlets are found throughout the lung along with an overgrowth of neuroendocrine cells, this is called diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH). If DIPNECH is found on a biopsy sample this may mean a lung carcinoid might develop, but lung carcinoids can also develop without DIPNECH being present.

Researchers have found some common changes in chromosomes and genes inside lung carcinoid tumor cells, which might affect how these cells function. But it is still not clear exactly how these changes cause carcinoid tumorlets to develop from lung neuroendocrine cells or how they might cause tumorlets to grow and become carcinoid tumors.

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Can Lung Carcinoid Tumors Be

Prevented?

Because we do not yet know [what causes most lung carcinoid tumors](#)¹, it is not possible to know how to prevent them.

Smoking has been linked with an increased risk of atypical carcinoids in some studies, so [quitting](#)² (or not starting) might reduce a person's risk.

Hyperlinks

1. <https://www.cancer.org/content/cancer/en/cancer/lung-carcinoid-tumor/causes-risks-prevention/what-causes.html>
2. <https://www.cancer.org/content/cancer/en/healthy/stay-away-from-tobacco.html>

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Thomas CF, Jett JR, Strosberg JR. Lung neuroendocrine (carcinoid) tumors: Epidemiology, risk factors, classification, histology, diagnosis, and staging. UpToDate website. <https://www.uptodate.com/contents/lung-neuroendocrine-carcinoid-tumors-epidemiology-risk-factors-classification-histology-diagnosis-and-staging>. Updated Feb. 26, 2018. Accessed July 9, 2018.

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