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Risk Factors for Lymphoma of the Skin

#### cause of the lymphoma.

- What is a risk factor?
- Age
- Sex and race
- Having a weakened immune system
- Certain infections

#### What is a risk factor?

A risk factor is anything that increases your chance of getting a disease like 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 several, does not mean that a person will get the disease. And many people who get the disease may have few or no known risk factors.

### Age

Age is an important risk factor for this disease, with most skin lymphomas occurring in people in their 50s and 60s. But some types of skin lymphoma can appear in younger people, even in children.

#### Sex and race

Most (but not all) types of skin lymphoma are more common in men than in women. Most also tend to be more common in African Americans than in White people. The reasons for this are not known.

## Having a weakened immune system

Skin lymphomas may be more common in people who have a weakened immune system. This includes people with acquired immunodeficiency syndrome (AIDS), as well as people who have had an organ transplant such as a heart, kidney or liver transplant, who must take drugs that suppress their immune system.

#### **Certain infections**

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## What Causes Lymphoma of the Skin?

Some risk factors can make a person more likely to get lymphoma of the skin, but it's not always clear exactly how these factors might increase risk.

Scientists have learned how certain changes in the DNA inside normal lymphocytes (immune system cells) might cause them to become lymphoma cells. DNA is the chemical in each of our cells that makes up our genes, which control how our cells function. We usually look like our parents because they are the source of our DNA. But DNA affects more than just how we look.

Some genes control when our cells grow, divide into new cells, and die at the right time:

- Certain genes that help cells grow, divide, or live longer are called **oncogenes**.
- Genes that help keep cell division under control 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.

Some people inherit DNA mutations (changes) from a parent that increase their risk of developing some types of cancer. But lymphoma of the skin is not one of the cancer types often caused by inherited mutations.

DNA changes related to lymphoma of the skin are usually acquired after birth, rather than being inherited. Some of these acquired changes may have outside causes (such as infections), but often they occur for no apparent reason. They seem to happen more often as we age, which may help explain why most types of skin lymphomas usually occur in older people.

Scientists are learning about the exact gene changes that cause skin lymphomas. But even though they have found some of these gene changes, they still do not know why these changes occur.

The immune system seems to play an important role in some skin lymphomas. People with weakened immune systems (such as people with acquired immunodeficiency syndrome (AIDS) and people who have had an organ transplant) seem to have a

greater chance of developing skin lymphoma, but it's not clear why.

# Can Lymphoma of the Skin Be Prevented?