

Are Tattoos a Risk Factor for Lymphoma?

A study found a 21% higher risk of malignant lymphoma in people with tattoos, but more research on the potential association is needed.

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[Tattoos](#) may be a risk factor for malignant [lymphoma](#), according to a study out of Lund University in Sweden. But experts say much more research is required to substantiate such a claim, according [to CNN](#).

Published in [eClinicalMedicine](#), the study was conducted by researchers seeking to identify the long-term health effects of tattoos. Nearly one third of people in the United States have at least one tattoo, according to a [Pew Research Center survey](#).

Researchers surveyed nearly 12,000 Swedes regarding lifestyle factors that could increase their risk of malignant lymphoma, a cancer of the of the body's germ- and disease-fighting lymphatic system.

Tattooed individuals involved in the study had a 21% [increased risk](#) of malignant lymphoma. However, the conclusion is "really overstated," according to Timothy Rebbeck, PhD, an epidemiologist at Dana-Farber Cancer Institute and professor at the Harvard T.H. Chan School of Public Health who was not involved with the research. Rebbeck noted that the estimated 21% added risk comes from the models in the new study, but it is not statistically significant,

Lymphoma occurs when white blood cells of the immune system grow out of control. The two main types are Hodgkin lymphoma and [non-Hodgkin lymphoma](#), each of which has multiple subtypes. Lymphoma can often be put into remission and in many cases can be cured, but untreated, fast-growing lymphoma can be life-threatening, according to Cancer Health's [Basics on Lymphoma](#).

The [American Cancer Society estimates](#) that about 80,620 people will be diagnosed with non-Hodgkin lymphoma in 2024, and almost 20,150 people will die of the disease.

Some risk factors for malignant lymphoma include a weakened immune system caused by illness or immune disorders (such as AIDS), infections, age and family history. Other risk factors include exposure to pesticides or herbicides as well as secondhand smoke, CNN reports.

In a university [news release](#), study coauthor Christel Nielsen, PhD, an associate professor in the Division of Occupational and Environmental Medicine at Lund University, said the reason for the increased risk is unknown but speculated that tattooing triggers inflammation in the body, which in turn can trigger cancer. The tattoo ink itself may also be a factor, the study's authors suggested.

"It is important to remember that lymphoma is a rare disease and that our results apply at the group level," Nielsen added. "The results now need to be verified and investigated further in other studies, and such research is ongoing."

The Swedish research group aims to investigate whether there is any association between tattoos and other types of cancer or inflammatory diseases, such as arthritis, hypertension, heart disease and lupus.

"People will likely want to continue to express their identity through tattoos, and therefore it is very important that we as a society can make sure that it is safe," Nielsen noted.

To learn more, click [#Lymphoma](#) or read [Cancer Health's Basics on Lymphoma](#). It reads in part:

How is lymphoma diagnosed?

Early detection and treatment of cancer increases the likelihood of good outcomes. The process of diagnosis starts with a physical exam and health history, including how long symptoms have been present.

A blood test known as a complete blood count takes an inventory of the different types of blood cells. A sample of lymph node tissue (a biopsy) or entire lymph nodes may be removed and examined under a microscope. In some cases, a bone marrow biopsy may be done.

What are the symptoms of lymphoma?

Many people with lymphoma do not have symptoms during the early stages of disease. Later

symptoms depend on where the cancer is growing—for example, in the abdomen, chest or brain. As the cancer progresses, symptoms may include:

- Swollen lymph nodes
- Fever, chills and night sweats
- Frequent infections
- Fatigue
- Loss of appetite or unexplained weight loss
- Unexplained cough or shortness of breath
- Swelling or feeling of fullness in the abdomen
- Cognitive changes
- Skin rash or red, itchy patches on the skin
- Nodules or bumps under the skin.

Swollen lymph nodes related to lymphoma are usually not painful, while those that swell because of an infection are often sensitive to the touch.

How is lymphoma treated?

Treatment for lymphoma varies according to the type of disease, how the cancer has spread and the patient's age and previous treatment history. Cancer that did not respond to prior therapy or has relapsed is harder to treat.