Antiperspirants and Breast Cancer Risk

For many years, rumors have circulated online suggesting that underarm antiperspirants might cause breast cancer[1]. While the research on this topic is limited, most studies have not found a link between antiperspirant use and the development of breast cancer.

- Does antiperspirant use increase a person's risk of breast cancer?
- Does using antiperspirant after shaving allow chemicals to enter the body from the armpit and increase breast cancer risk?
- Should I be concerned about parabens?
- Should I be concerned about aluminum in antiperspirants?
- Do antiperspirants keep a person from sweating cancer-causing toxins out through their underarm lymph nodes?
- Are there lymph nodes in the upper outer quadrant of the breast where most tumors occur?
- Are men less likely to get breast cancer because antiperspirant gets caught in their underarm hair and is not absorbed by their skin?
- Why am I told not to use antiperspirant or deodorant on the day of my mammogram?
- How can I learn more about breast cancer risk factors and ways to find breast cancer early?

Does antiperspirant use increase a person's risk of breast cancer?

There are no strong epidemiologic studies (studies in people) that link breast cancer risk and antiperspirant use, and very little scientific evidence to support this claim.

The studies in people that have looked at this issue have been **case-control studies**, in

While some forms of parabens have been found in the urine in up to 99% of people in the US, so far, studies in people have not shown any direct link between parabens and any health problems, including breast cancer. There are also many other compounds in the environment that mimic naturally produced estrogen.

Although there are no clear health risks from parabens in food, drugs, cosmetics, and skin care products, people concerned about being exposed to parabens might choose to avoid products containing them. Consumer products containing parabens are required to list them as ingredients. Most parabens have names containing the word “paraben,” making them easy to find.

According to the US Food and Drug Administration (FDA),many major brands of antiperspirants and deodorants do not currently contain parabens, although some might.

Should I be concerned about aluminum in antiperspirants?

Aluminum-based compounds are the active ingredients in antiperspirants. They block the sweat glands to keep sweat from getting to the skin's surface. Some researchers have theorized that these aluminum compounds might be absorbed by the skin and cause changes in estrogen receptors of breast cells. Because estrogen can promote the growth of both cancer and non-cancer breast cells, some scientists have suggested that using the aluminum-based compounds in antiperspirants may be a risk factor for the development of breast cancer.

But it isn’t clear that much aluminum is absorbed through the skin. One study that looked at the absorption of aluminum from antiperspirants containing aluminum chlorohydrate applied to the underarms found that only a tiny fraction (0.012%) was absorbed. The actual amount of aluminum absorbed would be much less than what would be expected to be absorbed from the foods a person eats during the same time.

It also doesn’t seem that breast cancer tissue contains more aluminum than normal breast tissue. A study that looked at women with breast cancer found no real difference in the concentration of aluminum between the cancer and the surrounding normal tissue.

At this point, there is no clear link between antiperspirants containing aluminum and breast cancer.

Do antiperspirants keep a person from sweating cancer-causing toxins out through their underarm lymph nodes?

The lymph nodes in our bodies help clear out bacteria, viruses, and other possible threats, but the lymph nodes do not release waste or toxins through sweating. In fact, lymph nodes are not connected to sweat glands. Sweat glands are located in the skin, not in the lymph nodes. The main function of sweat glands is to help cool the body, not to get rid of toxins.

Most cancer-causing substances that enter the body are removed from the blood by the kidneys and by the liver. Substances removed by the kidneys are released into urine, while those taken by the liver are released into bile. The bile then mixes with and is eliminated with feces.

Are there lymph nodes in the upper outer quadrant of the breast where most tumors occur?

Lymph nodes can be found throughout the breasts and have an important role. The underarm (axillary) nodes filter most of the liquid lymph flowing out of the breast before it goes back into the body's bloodstream. These nodes are under the arm, in the upper outer quadrant of the breast, and near the collarbone.

The breast quadrants are not actually all the same size. About half of all breast cancers develop in the upper outer part of the breast, but this is most likely because there is more breast tissue in this area. The number of breast cancers in the upper outer part of the breast is in proportion to the amount of breast tissue in that area.

There is no evidence to suggest that the location of cancers within the breast is related to using antiperspirants or underarm shaving.

Are men less likely to get breast cancer because antiperspirant gets caught in their underarm hair and is not absorbed by their skin?

Men are much less likely than women to develop breast cancer, but this is mostly because men have much less breast tissue than women.

Hormones also play a role. Men with metabolic or genetic conditions that lead to increased estrogen levels have an increased risk of developing breast cancer.

Underarm hair and antiperspirant absorption have not been linked to male breast cancer risk.

Why am I told not to use antiperspirant or deodorant on the day of my

mammogram?

You are likely to be advised not to use antiperspirant or deodorant on the day you get a mammogram (an x-ray of the breast) because many of these products contain aluminum. This metal can show up on mammograms as tiny white specks. These specks can look like microcalcifications, which are one of the things doctors look for as a possible sign of breast cancer[2]. Not using these products helps prevent any confusion when the mammogram films are reviewed.

How can I learn more about breast cancer risk factors and ways to find breast cancer early?

Women concerned about breast cancer can learn about risk factors for breast cancer and possible ways to reduce breast cancer risk in Breast Cancer Risk and Prevention[3].

The American Cancer Society has information about all aspects of breast cancer[4], including causes, prevention, early detection, diagnosis, and treatment. Contact us at 1-800-227-2345.

You can also talk to your doctor, nurse, or other health care providers.

Hyperlinks

1. www.cancer.org/cancer/types/breast-cancer.html
2. www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/what-does-the-doctor-look-for-on-a-mammogram.html
3. www.cancer.org/cancer/types/breast-cancer/risk-and-prevention.html
4. www.cancer.org/cancer/types/breast-cancer.html

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