



# ALUMINIUM USED IN ANTIPERSPIRANTS

## KEY POINTS

- Aluminium salts do not increase the risk of breast cancer or other diseases. Major international agencies have concluded that antiperspirants are safe to use every day if needed.
- The aluminium in antiperspirants does not penetrate the skin where it is applied and its use in antiperspirants does not block perspiration from other areas of the body.
- Antiperspirants contain a compound of aluminium to reduce underarm wetness and odour from sweating. They are different from deodorants, which contain fragrances to mask odour but do not prevent perspiration.

## ALUMINIUM IN ANTIPERSPIRANTS PREVENTS WETNESS AND ODOUR FROM PERSPIRATION

Aluminium salts are the active ingredient in antiperspirants, reducing wetness and odour from underarm sweating. Deodorants are different from antiperspirants; they contain fragrances to mask perspiration odour, but do not prevent perspiration or the associated odour.

Some inaccurate rumours have suggested that the aluminium in antiperspirants is a cause of breast cancer. However, a large number of studies show that antiperspirants do not cause cancer, or pose any health risks, either through the use of aluminium or the reduction of sweating.

## **ANTIPERSPIRANTS AND SWEATING**

The skin does not absorb aluminium very well, and antiperspirants do not penetrate into the skin or the sweat glands.

Antiperspirants form a thin layer on the skin, over the sweat ducts where they are applied. They do not block perspiration from sweat ducts in the rest of the body.

Sweat is not a major route of eliminating toxins from the body; antiperspirants do not prevent the release of toxins from the body in sweat, or force toxins back into the body.

Almost all of the toxins and other waste products of the body are filtered out by the kidneys and liver and are then excreted. The function of sweat glands is to control body temperature and sweat consists mostly of water.

## **EVIDENCE OF THE SAFETY OF ALUMINIUM IN ANTIPERSPIRANTS**

Many reliable studies have been done on the safety of aluminium in antiperspirants and other personal care products. The overwhelming conclusion is that antiperspirants that contain aluminium do not cause breast cancer or other illnesses; a few key studies are noted below, and additional sources of information are listed in the following section.

The American Cancer Society states that scientific evidence does not link breast cancer risk with antiperspirant use. It notes that “a carefully designed epidemiologic study of this issue found no link between breast cancer risk and antiperspirant use, deodorant use, or underarm shaving.”

In 2008, another major French review of 59 published scientific studies on antiperspirants found no evidence of a link between antiperspirants and breast cancer.

# ADDITIONAL RESOURCES

## REGULATORY INSTITUTIONS

European Commission

Health and Food Safety News (2014)

[www.ec.europa.eu/dgs/health\\_food-safety/dyna/enews/enews.cfm?al\\_id=1474](http://www.ec.europa.eu/dgs/health_food-safety/dyna/enews/enews.cfm?al_id=1474)

"Opinion on the safety of aluminium in consumer products"

[www.ec.europa.eu/health/scientific\\_committees/consumer\\_safety/docs/sccs\\_o\\_153.pdf](http://www.ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_153.pdf)

National Toxicology Program Report on Carcinogens

[www.ntp.niehs.nih.gov/ntp/roc/content/listed\\_substances\\_508.pdf](http://www.ntp.niehs.nih.gov/ntp/roc/content/listed_substances_508.pdf)

## HEALTH RESEARCH & ADVOCACY INSTITUTIONS

Cancer Research UK

[www.cancerresearchuk.org/about-cancer/causes-of-cancer/cancer-controversies/cosmetics-and-toiletries#Cosmetics0](http://www.cancerresearchuk.org/about-cancer/causes-of-cancer/cancer-controversies/cosmetics-and-toiletries#Cosmetics0)

Cancer Council Western Australia

[www.cancerwa.asn.au/resources/cancermyths/deodorants-breast-myth/](http://www.cancerwa.asn.au/resources/cancermyths/deodorants-breast-myth/)

National Kidney Foundation

[www.kidney.org/atoz/content/antiperspirants](http://www.kidney.org/atoz/content/antiperspirants)

Breast Cancer Now

*Myths about causes of breast cancer*

[www.breastcancer.org/about-breast-cancer/want-to-know-about-breast-cancer/what-can-cause-breast-cancer/myths-about-causes-of-breast-cancer?deep\\_link=aluminium](http://www.breastcancer.org/about-breast-cancer/want-to-know-about-breast-cancer/what-can-cause-breast-cancer/myths-about-causes-of-breast-cancer?deep_link=aluminium)

*Breast cancer risk: debunking the myths and misconceptions*

[www.breastcancer.org/news-and-blogs/blogs/breast-cancer-risk-debunking-the-myths-and-misconceptions](http://www.breastcancer.org/news-and-blogs/blogs/breast-cancer-risk-debunking-the-myths-and-misconceptions)

National Cancer Institute

[www.cancer.gov/about-cancer/causes-prevention/risk/myths/antiperspirants-fact-sheet](http://www.cancer.gov/about-cancer/causes-prevention/risk/myths/antiperspirants-fact-sheet)

American Cancer Society

[www.cancer.org/cancer/cancer-causes/general-info/known-and-probable-human-carcinogens.html](http://www.cancer.org/cancer/cancer-causes/general-info/known-and-probable-human-carcinogens.html)

## COSMETICS INDUSTRY

AntiperspirantsInfo

[www.antiperspirantsinfo.com/en/health-and-antiperspirants/](http://www.antiperspirantsinfo.com/en/health-and-antiperspirants/)

## BLOGS

WedMD: *Antiperspirant Safety: Should You Sweat It?*

[www.webmd.com/skin-problems-and-treatments/features/antiperspirant-facts-safety](http://www.webmd.com/skin-problems-and-treatments/features/antiperspirant-facts-safety)

Bad Science: *Is there a link between breast cancer and antiperspirant?*

[www.badsience.net/index.php?s=antiperspirants](http://www.badsience.net/index.php?s=antiperspirants)

Snopes: *Anti-Perspirants and Breast Cancer*

[www.snopes.com/medical/toxins/antiperspirant.asp](http://www.snopes.com/medical/toxins/antiperspirant.asp)

Prevention: *Why Is Everyone Freaking Out About Aluminum?*

[www.prevention.com/beauty/skin-care/a20466189/does-aluminum-in-antiperspirants-cause-cancer-and-alzheimers/](http://www.prevention.com/beauty/skin-care/a20466189/does-aluminum-in-antiperspirants-cause-cancer-and-alzheimers/)

Science-Based Medicine: *Breast cancer myths: No, antiperspirants do not cause breast cancer*

[www.sciencebasedmedicine.org/cutting-the-other-breast-off-does-not-improve-breast-cancer-survival/](http://www.sciencebasedmedicine.org/cutting-the-other-breast-off-does-not-improve-breast-cancer-survival/)

Scientific American: *Fact or Fiction?: Antiperspirants Do More Than Block Sweat*

[www.scientificamerican.com/article/fact-or-fiction-antiperspirants-do-more-than-block-sweat/](http://www.scientificamerican.com/article/fact-or-fiction-antiperspirants-do-more-than-block-sweat/)

The Conversation: *Does aluminium cause Alzheimer's and breast cancer?*

[www.theconversation.com/does-aluminium-cause-alzheimers-and-breast-cancer-8799](http://www.theconversation.com/does-aluminium-cause-alzheimers-and-breast-cancer-8799)

## SCIENTIFIC RESEARCH REPORTS

Mirick, D., Davis, S. and Thomas, D. (2002). "Antiperspirant use and the risk of breast cancer", Journal of the National Cancer Institute

[www.academic.oup.com/jnci/article/94/20/1578/1802711/Antiperspirant-Use-and-the-Risk-of-Breast-Cancer](http://www.academic.oup.com/jnci/article/94/20/1578/1802711/Antiperspirant-Use-and-the-Risk-of-Breast-Cancer)

Namer, M., Luporsi, E., Gligorov, J., Lokiec R. and Speilmann, M. (2008). "The use of deodorants/antiperspirants does not constitute a risk factor for breast cancer". Bull Cancer 95(9) 871-80.

[www.ncbi.nlm.nih.gov/pubmed/18829420](http://www.ncbi.nlm.nih.gov/pubmed/18829420)

Willhite, C., Karyakina, N., Yokel R., Yenugadhati, N., Wisniewski, T., Arnold I., Momoli, F. and Krewski D. (2014). "Systematic review of potential health risks posed by pharmaceutical, occupational and consumer exposures to metallic and nanoscale aluminum, aluminum oxides, aluminum hydroxide and its soluble salts". Critical Reviews in Toxicology 44 Suppl. 4.

[www.ncbi.nlm.nih.gov/pubmed/25233067](http://www.ncbi.nlm.nih.gov/pubmed/25233067)