

Solvent used in nail polish may increase risk of breast and ovarian cancer

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Ethylene glycol methyl ether a solvent for nitrocellulose, oils and resins, adhesives and for many different purposes may raise the risk of breast or ovarian cancer among women taking hormone treatments, say researchers at Duke University. Ethylene glycol methyl ether is used in formulating cleaners, printing inks, photographic film, lacquers, and nail polish.

Ethylene glycol methyl ether (EGME) was found to boost the activity of hormones used in HRT and the contraceptive pill which in turn may increase the risk of breast or ovarian cancer for some women

The researchers also found the same effect was triggered by a drug used to treat epilepsy, Vaproic acid, which has a similar chemical structure.

Ethylene glycol methyl ether was found to boost hormone activity by up to 10 times. Researchers suggested that this could be particularly significant for women vulnerable to developing forms of cancer which are triggered by hormones. The research also hinted at a possible link between Ethylene glycol methyl ether exposure and miscarriage.

Dr Donald McDonnell, lead researcher said: "Our study demonstrates that these chemicals boost the activity of estrogens and progesterins inside cells by up to eight to 10 fold."

Are Salon Visits Raising Your Breast Cancer Risk?

By: [Michelle Schoffro Cook](#)
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Before you book your next appointment for that Brazilian blow-out or to cover those grey hairs, you might want to keep reading. New research found a link between some hair dyes, relaxers and straighteners and an increased breast cancer risk. That's because many of these hair products contain carcinogens.

Historically, black women have had lower rates of breast cancer than white women, but the rates have recently converged. Researchers attempted to find out if hair product use could be playing a role. Few other studies have explored the use of hair product use among women of African American decent.

Published in the medical journal *Carcinogenesis*, researchers assessed 4285 women and their use of hair dyes, relaxers and deep conditioning products to determine whether there were any links between these products and breast cancer risk. They also wanted to find out if the risks were specific to ethnicity since so little research has been done on women of African American decent and breast cancer risk. The study did not explore breast cancer risk on women of other ethnicities.

The researchers also analyzed data to determine whether there were any differences for women of different ethnic backgrounds since they typically use different products. More white women tend to use hair dye than

black women (58 percent of the white women studied compared to 30 percent of black women studied) while black women were found to use more hair relaxers (about 88 percent of the black women who participated in the study compared to 5 percent of white women) and deep conditioning products (59 percent of black women compared to 6 percent of white women).

The researchers found significant links between breast cancer risk and use of hair dyes, relaxers (also called straighteners) and that the risk varied between women of Caucasian and African-American decent. Black women who used dark shades of hair dye had a higher risk of breast cancer, particularly estrogen-linked breast cancer. White women who used relaxers on their own or in combination with hair dye had an increased risk of breast cancer and estrogen-linked breast cancer. White women had a higher risk of estrogen-positive breast cancer when they used dark hair dyes and an increased risk of estrogen-negative breast cancer when they used relaxers.

The researchers found an increased risk of breast cancer linked to specific hair product ingredients, including: aromatic amines, 4-aminobiphenyl (ABP) and lye.

Earlier research in the *Journal of the National Cancer Institute* identified links between dark shades of hair dye to non-Hodgkin's lymphoma, multiple myeloma and bladder cancer.

Most of the ingredients in these hair products are only minimally-regulated by the Food and Drug Administration (FDA), if they are regulated at all, so it really is a case of buyer beware. So, what can you do to reduce your risk? Here are several suggestions:

- Avoid dyeing or relaxing your hair
- Reduce the amount of these hair products or treatments you use
- If you use them, choose ones that do not contain the chemical ingredients listed earlier, as well as those that contain ammonia, formaldehyde, sodium laureth sulphate, coal tar or parabens
- Reduce the frequency with which you use these types of hair treatments
- Choose organic hair treatments only, if you feel that you must use them at all