

Use of Hair Straightening Chemicals and Uterine Cancer

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Dear Editor,

Hair care products have been on the rise in recent years. The utilization of straightening chemicals, dyes, conditioners, and serums is noticed in men and women alike. Around 50% of women are reported to use various permanent hair chemicals in the United States and Europe alone. The composition of these products includes formaldehyde-releasing chemicals, oxidized para-phenylenediamine, and 4-aminobiphenyl, all of which cause damage and desecration of hair follicles and roots and have a potential role as carcinogens suggesting a strong relation between the usage of these chemicals and possible cancer. Studies have disclosed alarming associations with breast, ovarian, and uterine tumors with the latter being the most common. Moreover, research revealed greater than 65950 new cases with approximately 12550 deaths in the United States due to uterine cancer in 2022¹. Thus, it is pertinent to highlight the impelling connection between the frequent application of hair straightening chemicals and malignancy involving the uterus.

Even though these products enhance the appearance and manageability of hair, they are linked to a number of negative side effects, including hair loss, color changes, weakening, and breaking². Moreover, the majority of hair relaxers include "fragrance" as an ingredient, and 100% of well-known scents examined in the research were found to contain phthalates, therefore the majority of hair relaxers presumably contain this chemicals³. As shown in earlier studies, exogenous hormones, placenta, and endocrine-disrupting chemicals (EDCs) are likely present in hair products used more frequently by women and children (e.g., certain parabens, phenols, and phthalates). Direct exposure to these hormone- and chemical-based substances may negatively affect a number of biological functions, including the action of steroid hormones. This may help to explain how the use of hair products may lead to health discrepancies like prior menarche age as well as a higher likelihood of uterine fibroids among Black women than White women⁴. According to a study, women who used hair straightening products frequently—defined as more than four times in the previous year—were more than twice more likely to later acquire uterine cancer than women who did not use these products⁵.

Ultimately, the logical route to remedy is not a singular option or treatment. Instead, there are a few potent strategies that could help curb and progressively efface this correlation between hair straightening chemicals and cancerous tendencies. Raising awareness is the fundamental measure to ensure prevention in the shortest span. Advertisements should pivot the warning of excessive use of hair straightening chemicals on channels targeting fashion-centric audiences. Further, endorsements from medical practitioners are crucial to drive home the potential dangers. Their advisory should be supplemented with hard data, uncovered via rigorous research, to convince ardent users of such chemicals - both men and women alike. Primitively, however, the focus should be the most vulnerable demographic i.e., pregnant women. Therefore, routine checkups should be recommended for intermittent users of such chemicals to detect any early signs of peril. In the long run, the objective should be to completely eradicate this contingency. Thus, innocuous alternatives should be used to replace the harmful chemicals used in traditional dyes today. Alongside rampant awareness campaigns, the dangers could plausibly be minimized significantly in piecemeal.

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CONFLICT OF INTEREST

All authors agreed to the publication of this manuscript.

AUTHORS CONTRIBUTION

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