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# IMPACT OF PERSONAL CARE PRODUCTS ON HUMAN HEALTH

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## ABSTRACT

The most common chemical found in beauty products is paraben, which is used as preservative in deodorants, moisturisers, shampoos, body wash and makeup, and increases the chances of breast cancer. Its chemical structure is similar to estrogen and it can be carcinogenic even in tiny amounts. Sure, cosmetics make you look good, but just like all things too good to be true, the positive benefits of using such products can take a toll on your health. The average woman uses 12 personal care products a day containing 168 different chemicals. The skin may absorb up to 60 per cent of the chemicals in products it comes in contact with. Substandard quality, grade, harmful compositions can result in allergies, discolouration, texture alteration or permanent damage to the skin or hair. Cosmetic products in India are regulated under the Drugs and cosmetics Act 1940 and Rules 1945 and labelling declarations by Bureau of Indian Standards (BIS). BIS has

provided specifications for skin creams and lipstick in the Indian Standards (IS) and it should be followed while using the personal care products. Use good alternatives to beauty products like an organic face wash instead of a chemical products to safeguard the living things in the environment.

**Keywords:** Triclosan, Paraben, Phenylenediamine, Alpha Hydroxy Acids, Beta Hydroxy Acids

## INTRODUCTION

Personal care products are cleansing soap, body wash, shampoo, conditioner, bubble bath, toothpaste, mouthwash, hair styling spray, gel, pomade, shaving cream gel, moisturizing face and body lotion, nail polish, remover, perfume, cologne, body spray, deodorant and antiperspirant, cosmetics foundation, concealer, mascara, eyeshadow, eyeliner, lipstick, lip gloss, cleansing pads, cotton swabs, cotton pads, facial tissue, hair clippers, lip balm, lotion, makeup, baby powder, toilet paper, facial treatments, wet wipes, towels, and shampoo etc., The most common chemical found in beauty products is paraben, which is used as preservative in deodorants, moisturisers, shampoos, body wash and makeup, and increases the chances of breast cancer. Its chemical structure is similar to estrogen and it can be carcinogenic even in tiny amounts. Sure, cosmetics make you look good, but just like all things too good to be true, the positive benefits of using such products can take a toll on your health. According to studies, the average woman uses 12 personal care products a day containing 168 different chemicals. A recent study has revealed that the skin may absorb up to 60 per cent of the chemicals in products it comes in contact with. Substandard quality,





grade, harmful compositions can result in allergies, discolouration, texture alteration or permanent damage to the skin or hair.

### Impact of Personal care products:

1. Phthalates, as key components in plastics, appear in many consumer products. The main phthalates in cosmetics and personal care products are dibutyl phthalate in nail polish, diethyl phthalate in perfumes and lotions, and dimethyl phthalate in hair spray. Hundreds of [chemicals](#) including, phthalates, formaldehyde and lead have been discovered in cosmetic and personal care products. Other personal care product [ingredients](#) of special concern include namely, Mercury, Asbestos, Triclosan and Bezophenone. [Phthalates](#) are a group of chemicals used to make plastics more flexible and harder to break. They are often called plasticizers. Some phthalates are used as solvents (dissolving agents) for other materials. Often they have been incorporated into various personal care products (e.g. soap, shampoos, and perfumes) as well. Phthalates have been [linked](#) to obesity, increased risk of diabetes, an increased risk of metabolic syndrome and cardiovascular disease risk, as well as [pre-term birth](#), preeclampsia and gestational diabetes.
2. Lipsticks have been [found](#) to contain lead, a neurotoxin that can be dangerous even at very small doses. Hair products have been [shown](#) to release potentially dangerous levels of formaldehyde, a known carcinogen.
3. Impact OF PCP'S on Saloon workers were as follows:
  - Dermatitis and other skin conditions
  - Decreased lung function and asthma

- Breast cancer, lung cancer, cancer of the larynx, bladder cancer, and multiple sclerosis
  - Myeloma Miscarriage
  - Having babies born with cleft palate and other birth defects
  - Depression
  - Alzheimer's disease, presenile
  - Dementia, motor neuron disease
  - Lupus and primary biliary cirrhosis
4. Men who use products containing parabens can have lower sperm counts and less testosterone. It could also cause endocrine disruption. The formaldehyde releasers found in nail products, hair dye, hair straighteners, false eyelash adhesives, cosmetic glues and some shampoos, is also linked to causing cancer and can also damage the immune system. There is also the presence of ethanolamine in cosmetics, which contains impurities like nitrosamines and is usually not listed on product labels. It is actually a respiratory, skin and organ cancer causing toxicants, and is usually found in soaps, shampoos, hair conditioners and dyes, shaving creams, eyeliners, mascara, fragrances and sunscreens.
  5. Triclosan, found in most antibacterial soaps and deodorant, causes skin irritation and infection used as an antimicrobial agent in personal care products, it can act as endocrine disruptor and disturb thyroid, testosterone and estrogen regulation, leading to issues like early puberty, poor sperm quality, infertility, obesity, and cancer. If children are exposed to this at an early age, they have an increased chance of developing allergies, asthma and eczema.
  6. Hydroquinone, usually found in skin-lightening products, certain cleansers and



- moisturisers, is another harmful drug which can cause ochronosis and hence leave disfiguring and irreversible blue-black lesions on exposed skin.
7. Many fairness creams also contain steroids which cause skin damage, thinning, redness, colour alteration and acne, apart from hydroquinone or mercury, which have been associated with cancers.
  8. Coal tar, ethoxylated surfactants and 1,4-dioxane (by-product obtained from adding carcinogenic ethylene oxide to make other chemicals less harsh, usually used in baby washes), lead (used in lipstick and hair dye, but never listed because it is a contaminant, not an ingredient), mercury (can impair brain development) and mineral oil (which creates a film that impairs the skin's ability to release toxins) are some of the other harmful ingredients used in manufacturing cosmetics.
  9. Even basic products like hand sanitisers and hair straighteners can cause more damage than expected. Hand sanitisers are effective in killing germs but excessive use can also kill the good bacteria, exposing your skin to the allergic elements.
  10. Now a days, most of the baby wipes found in the market contain a chemical called methylisothiazolinone which causes skin allergies, rashes and irritation.
  11. Most deodorants contain aluminium chloride hexahydrate and parabens which cause of cancer, Alzheimer's Disease, etc. Toothpaste is a major source of fluoride and if the quantity of intake is high, it can become a major cause of disfiguring dental fluorosis."
  12. The hair straighteners contain formaldehyde and hair dye ammonia eight per cent of currently marketed hair dyes and colours consist of colourless dye intermediates' (aromatic amines) and dye couplers. Darker colours are formed by using higher concentrations of intermediates. Semipermanent and temporary hair dyes are non-oxidative and include coloured compounds that stain hair directly. These compounds cause skin allergies.
  13. Tattoos that contain P-Phenylenediamine (PPD) can cause severe allergies to the sensitive skin. Most commonly, the red tattoo pigment contains mercury sulfide, while black tattoo pigment contains iron oxide. So, what alternatives can you use to keep the chemical exposure to a minimum and the doctors recommend using baking soda, lemon or coconut oil as deodorants and toothpaste, and opting for hair dye and henna for a natural shine.

### CONTROL MEASURES

1. Cosmetic products in India are regulated under the Drugs and cosmetics Act 1940 and Rules 1945 and labelling declarations by Bureau of Indian Standards (BIS). BIS has provided specifications for skin creams and lipstick in the Indian Standards (IS) and it should be followed while using the personal care products.
2. Use good alternatives to beauty products like an organic face wash instead of a chemical one, pomegranate seeds instead of lip gloss, aloe vera gels as great moisturising agent and coconut oil instead of harmful body lotions.
3. Choose products that are labelled noncomedogenic as that ensures the product doesn't cause skin irritation. Options for products with fatty alcohols



like cetyl, cetearyl, lanolin or stearyl alcohol which works as good moisturisers.

4. Antioxidants are a must for beauty products, so rosemary, red tea, coenzyme Q10, Lycopene and parsley. Vitamin A and Vitamin C, are beneficial ingredients. Vitamin A is has ingredients like Retinyl Palmitate, Retinyl Acetate. These products should not contain parabens, formaldehyde, fragrance, petroleum, Alpha Hyrdoxy Acids (AHA) and Beta Hydroxy Acids(BHA) and phthalates. Use products which contain natural ingredients like rose petal, sandalwood and aloe vera. Avocado is an ultra moisturising fatty fruit and contains vitamins A, D and E that are able to penetrate the skin. It helps soothe sunburn, can boost collagen production and treat age spots."
5. Use coconut oil on both your skin and hair to help cleanse, moisturise, remove makeup, heal wounds or scars quicker, and prevent razor burns. Coconut oil used internally is also beneficial. It contains antibacterial and anti-inflammatory properties, plus a lot of healthy fats that help nourish your gut and increase immune function. Honey makes a great homemade natural skincare product as a cure for acne because it can be used in facial cleansers even on sensitive or mixed skin types.

## CONCLUSION

The personal care products are like a slow poison and it should be avoided to use and in future we can think to the alternatives of personal care products from natural plants and its derivatives for life saving system in the biosphere.

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