

COSMETICS: ILLUSION OF BEAUTY**Shah Neha*¹, Jhunjhunwala Amita², Tiwari R. C.³, Dikshit Manisha⁴, Singh Anoop Kumar⁵ and Sharma Ved Bushan⁶**¹MD Scholar at UAU in *Agadtantra*.²Associate Professor at UAU in *Agadtantra*.³Professor and H.O.D. at UAU in *Agadtantra*.^{4,5}Associate Professor at UAU in *Agadtantra*.⁶Associate Professor at UAU in *Agadtantra*.

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ABSTRACT

As we know, we all are living in the era where physical appearance and the desire to look good and attractive is everyone's dream and to maintain that attractiveness is like a challenge. So cosmetics as a mediator plays a significant role in fulfilling our dream. Cosmetics not just make us look attractive but at the same time boost our confidence level too. Cosmetics are always associated with women but in the age of social media and level of exposure around the world the men too are attracted towards them. People are getting so much obsessed of these cosmetics that many of them are ignoring its harmful effects and a few of them are unaware of its darker side. Variety of cosmetic products are available in the market even the cosmetic surgeries, laser techniques, medications too have jumped into the market for our rescue. It is obvious that cosmetics improve our appearance but they do contain harmful chemicals like Sodium Laureth Sulphate, Talcum, Parabens, coal tar dyes and some heavy metals e.g. Lead, Arsenic, Nickel, Cadmium, and mercury and bioaccumulation of all substances can lead to deleterious effect on our body like skincare issues (dermatitis, skin allergies, premature ageing), respiratory disorders, heavy metal poisoning, infertility, cancer etc. At the initial stage the use of cosmetics seems effective, but actually they get accumulated in our body in form of toxic substance producing deleterious effects which might not be visible in the early stage but become apparent later.

KEYWORDS: cosmetics, dermatitis, metal poisoning, infertility, toxic, chemicals.**INTRODUCTION**

We all have heard that FIRST IMPRESSION IS THE LAST IMPRESSION and the world is going crazy after this line just to create a good impression on others cosmetics have become an essential part of our day to day lives. Beside knowing what they actually are... Cosmetics means any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, prompting attractiveness, or altering the appearance, and includes any article intended for use as a component of cosmetics. Cosmetics are mixture of chemical substances and different types of oils. Cosmetics which are used for face are also called makeup. According to make up,^[1] is classified is classified as subset of cosmetics that has to do with beautifying of face. Makeup items that are more in demand are lipsticks, foundation, eye shadow. Other common cosmetics include skin cleansers, body lotions, shampoo hairstyling products like hairspray, gel, etc and perfume.

The word *cosmetics* derives from the Greek word *kosmetike tekhne*, meaning "technique of dress and ornament", from *kosmetikos*, "skilled in ordering or arranging".^[2] and that from *kosmos*, meaning amongst others "order" and "ornament".^[3]

Some of the cosmetics contain different compounds like zincite, cuprite goethite, amorphous carbon, elemental silicon or talc hematite, minimum organic compounds, and even heavy metals such as Lead.^[4,5] The history of cosmetics spans at least 1000BC year's back,^[6] and is present in almost every society on earth. Black Antimony which was used as eyeliner in ancient Egypt,^[7] still being used by people in Northern Nigeria. It is applied to the eyes as ground, fine crystalline powder with an aid of thin stick, is used to draw a straight line on the eyes. The application of these mineral locally to the eyes is believed to serve as treatment of ophthalmologic infections and as an eye cleanser.^[8] The use of local eye liner has been reported as a suspected source of Lead exposure to the ocular system in children and adults.^[9]

The absence of regulation of the manufacture and use of cosmetics has led to negative side effects, deformities, blindness, and even death through the ages. The prevalent use of ceruse (white lead), to cover the face during the Renaissance, and blindness caused by the mascara Lash Lure during the early 20th century.^[10] According to one source, early major developments include.^[11]

- Kohl used by ancient Egypt as a protectant of the eye.
- Castor oil used by ancient Egypt as a protective balm.
- Skin creams made of beeswax, olive oil, and rose water, described by Romans.
- Vaseline and lanolin in the nineteenth century.

But nowadays cosmetics and makeup have been considered as a symbol of beauty. Using cosmetics as an option to make oneself more attractive on a daily life seems like a taboo to many people and over the decades it has become more popular but in reality these cosmetics are just an illusion of beauty which are not giving desired result and causing harmful effects to our lives. Cosmetics not just effect the life of human they are also responsible for the death of animals. After cosmetics are being prepared they are send to laboratories and they are first

test out on animals before the product are ready for human use. Methods of testing cosmetics on animals include many different tests that are categorized differently based on which areas the cosmetics will be used for. One new ingredient in any cosmetic product used in these tests could lead to the deaths of at least 1,400 animals.^[12] There are various countries in the world which has banned animal tested product in their countries.

According to DRUG AND COSMETIC ACT 1964 cosmetic products should not contain mercuric compounds and other compounds like arsenic not more than 2 PPM, Lead not more than 20 PPM, Heavy metals not more than 100 PPM.

Researchers examined data on side effects reported to the U.S. Food and Drug Administration (FDA) from 2004 to 2016 for products like makeup, sunscreen, tattoos, hair colour, perfume, shaving creams and baby care items. Overall, there were a total of 5,144 adverse events, with an average of 396 a year, researchers report in JAMA Internal medicine. Side effect reports climbed 78 percent to 706 in 2015, followed by a 300 percent surge to 1,591 adverse events last year.^[13]

Cosmetics contains lots of chemicals there is list of cosmetics containing chemicals and their adverse effects.^[14]

COSMETICS	CHEMICALS/METALS	ADVERSE EFFECT
shampoos and soaps	Diethanolamine (DEA)	prenatal exposure may have detrimental effects on brain development
hair smoothing products	Formaldehyde	allergic reactions in the eyes, nose, throat and skin, and it can lead to asthma. It may also cause menstrual disorders in woman.
skin lightening creams	Mercury	damage the kidneys, liver and brain
creams, makeup products, moisturizers, hair care and shaving products	parabens (Isobutylparaben, Butylparaben, Methylparaben, and Propylparaben).	breast tumors
hair dyes and the ink of tattoos	Paraphenylenediamine	dermatitis, allergies, and hypersensitivity
cleansers, and skin care products shampoos	Cocamidopropyl betaine	high skin sensitivity
Kajal	Kohl stone (galena, zincite, and magnetite)	affect bone marrow and brain function, anemia and convulsions
Artificial fragrances	(hydroxyisohexyl-3-cyclohexene, carboxaldehyde, isoeugenol etc.)	skin irritation, headaches, lung problems, and dizziness
Lipsticks	Polyvinylpyrrolidone (PVP) Copolymer	allergies and dermatitis

Health Risk Associated With Prolong Use of Cosmetics.^[15]

Headaches

Chemicals like Diazolidinyl urea and DMDM Hydantoin, both of which are tend to release

formaldehyde, are a common ingredient in many cosmetic products and are used as an antimicrobial preservative. These chemicals have been known to cause headaches, irritation of the mucous membranes, and cause damage to the eyes.

Hair loss

Hair products like hair gels, hair serums, shampoos, conditioners, and hair sprays contain several harmful chemicals. Extensive use of chemical based hair products could lead to dandruff, scalp redness, thinning of hair, and even loss of hair. Long term use of hair colour could also lead to hair discoloration.

Skin Allergies

Chemicals known as Parabens which include ethyl-paraben, butyl-paraben, and isopropyl-paraben are used as preservatives to prevent bacterial growth in cosmetics. Parabens can cause various allergic reactions like skin irritation, blotches, and blemishes on the skin.

Infertility

Skincare products and deodorants are directly absorbed by your skin, so it's very likely that the chemicals used in these products also seep into your body. A study conducted on rats found that butyl paraben adversely affects the secretion of testosterone and the function of the male reproductive system.

Though the consumers of cosmetics are majorly women, it's still important to note the adverse effects parabens can have on the reproductive system. Parabens are widely used in the skincare industry and even products labelled natural could have parabens.

Premature Ageing

When you use skin products for a longer period of time, the chemicals present tend to permanently damage your skin. With time, you could begin to see skin ageing signs like wrinkles or patchiness on your face and body. While makeup does help you hide or cover flaws in your skin, the long term effects could be counterproductive. Also, considering how big the anti-ageing products market is, cosmetic companies have no incentive to reduce the ageing effects of makeup.

Hormonal Imbalance

Prolonged use of cosmetics can have an impact on your endocrine system and interfere with the functioning of the thyroid gland. Triclosan is a commonly used chemical compound and can be found in products like acne-removal scrubs and deodorants to keep them free of germs. With regular use, triclosan gets absorbed and accumulated in your body and affects the thyroid gland causing an imbalance in the hormonal secretions. This could lead to thyroid related conditions like headaches, weight gain, and depression.

Cancer

Many of the chemical based cosmetics available in the stores today contain toxic ingredients that could cause cancer. With regulations in place, there is testing being done on the ingredients before the products can be sold. Try and avoid products with the following ingredients.

- Formaldehyde and formaldehyde-releasing preservatives (quaternium-15, diazolidinyl urea,

imidazolidinyl urea, DMDM hydantoin, and 2-bromo-2-nitropropane-1,3 diol)

- Phenacetin
- Coal tar
- Benzene
- Untreated or mildly treated mineral oils
- Ethylene oxide
- Chromium
- Cadmium and its compounds
- Arsenic
- Crystalline silica (or quartz)

CONCLUSION

The use of cosmetics has become unavoidable in today's era but at least we can try to degrade its harmful effects by making less use of cosmetics having a high level of chemical substances. Use of cosmetics does help you in improving your external beauty but its continuous and excess use can be a threat to your life as it not only causes skin issues but many diseases which can take you to deathbed. One should try to develop self-esteem through their intellectual and positive behaviour (or sincerity) beside just rely on their looks. Good nutrition plays a very important role in living healthy lifestyle. Combined with physical activity, your diet can help you to maintain a healthy lifestyle. Switching to yoga and meditation can also be helpful as they are reliable means of health, body and mind.

REFERENCES

1. A. Claeysens, "The History of Cosmetics and Make up," <http://ezinearticles.com/?The-History-of-Cosmetics-&makeup&id=1857725>, 2009. Retrieved, February 28, 2015.
2. Liddell, Henry George and Scott, Robert. In a Greek-English Lexicon.
3. Liddell, Henry George and Scott, Robert. In A Greek-English Lexicon.
4. A.D. Hardy, R. Vaishnav, S.S. Al-Kharushi, H.H. Sutherland and M.A. Worthing, "Composition of eye cosmetics (kohl) used in Oman," *Journal of Ethnopharmacology*, 1998; 60(3): 223-234.
5. A. Hardy, R. Walton and R. Vaishnav, (2004). "Composition of eye cosmetics (kohl) used in Cairo," *International Journal of environmental Health Research*, 2004; 14(1): 83-91.
6. M. Price, "Cosmetics, Styles & Beauty Concepts in Iran," http://www.iranchamber.com/culture/articles/cosmetics_beauty.php, 2001. Retrieved, February 20, 2015.
7. O.M. Badeeb, R.S. Ajlan and M.H. Walid, Kohl A1-Ethmed. Acute toxic effects of fragrance products. *JKAU: Medical Science*, 2008; 15(4): 59-67.
8. C.S. Chukwuma, "Environmental Lead exposure in Africa," *Ambio*, 1997; 26(6): 399-403.
9. K. Gibbs, "The Importance of Cosmetics and Make-up," *Ezine articles*. <http://ezinearticles.com/?The-Importance-Of-Cosmetics-And-Make-Up&id=827832>, 2007. Retrieved, February 28, 2015.

10. Schaffer, Sarah (2006), Reading Our Lips: The History of Lipstick Regulation in Western Seats of Power, *Digital Access to Scholarship at Harvard*, retrieved, 2014-06-05.
11. Schneider, Günther et al "Skin Cosmetics" in Ullmann's Encyclopedia of Industrial Chemistry, Wiley-VCH, Weinheim. doi:10.1002/14356007.a24_219, 2005.
12. Reference: "Archived copy". *Archived from the original on 9 February 2018*. Retrieved 8 February 2018.
13. Bit.ly/2td6imM JAMA Internal Medicine, online June 26, 2017.
14. <https://helloglow.co/ingredients-to-avoid-in-makeup-and-skincare-products/>.
15. <https://m.dailyhunt.in/news/.../10+harmful+side+effects+of+makeup-newsid-66029881>.