

THE EFFECT OF LIPSTICK ON HUMAN HEALTH

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Annotation: Lipstick is the favorite makeup product of women. Almost every woman owns this type of cosmetic. However, lipstick has very dangerous side effects that not everyone knows.

Ancient Sumerian and Indus Valley men and women were possibly the first to invent and wear lipstick, about 5000 years ago. The Sumerians crushed gemstones and used them to decorate their faces, mainly on the lips and around the eyes. Egyptians like Cleopatra crushed bugs to create the color red on their lips. Women in the ancient Indus Valley civilization used rectangular pieces of ochre with beveled ends as lipstick.

Lip coloring started to gain some popularity in 16th-century England. During the time of Queen Elizabeth I, bright red lips and a stark white face became fashionable. At that time, lipstick was made from a blend of beeswax and red stains from plants. Only upper-class women and male actors wore makeup. Throughout most of the 19th century, the obvious use of cosmetics was not considered acceptable in Britain for respectable women, and it was associated with marginalized groups such as actors and prostitutes. It was considered brazen and uncouth to wear makeup. In the 1850s, reports were being published warning women of the dangers of using lead and vermilion in cosmetics applied to the face. The first lipstick was created by the Parisian maison Guerlain in 1870. By the end of the 19th century, Guerlain began to manufacture lipstick on a larger scale. The first commercial lipstick was invented in 1884 by them in Paris, France. It was covered in silk paper and made from deer tallow, castor oil, and beeswax. Prior to this, lipstick had been created

at home. In the 19th century, lipstick was colored with carmine dye. Carmine dye was extracted from cochineal scale insects native to Mexico and Central America that live on cactus plants. Cochineal insects produce carminic acid to deter predation by other insects. Carminic acid, which forms 17% to 24% of the weight of the dried insects, can be extracted from the insect's body and eggs. Mixed with aluminum or calcium salts, it makes carmine dye (also known as cochineal).

Lipstick contains wax, oils, antioxidants, and emollients. Wax provides the structure for the solid lipstick. Lipsticks may be made from several waxes such as beeswax, ozokerite, and candelilla wax. Because of its high melting point, carnauba wax is a key ingredient in terms of strengthening lipstick. Various oils and fats are used in lipsticks, such as olive oil, mineral oil, cocoa butter, lanolin, and petrolatum. Lipsticks get their colors from a variety of pigments and lake dyes, including, but not limited to bromo acid, D&C Red No. 21, Calcium Lake such as D&C Red 7 and D&C Red 34, and D&C Orange No. 17. Pink lipsticks are made by mixing white titanium dioxide and red shades. Both organic and inorganic pigments are employed.

Table 1. Essential saponifiable lipids of lipstick

№	Substance	General information	Advantages	Disadvantages
1	Beeswax	Beeswax is a natural wax produced by honey bees. The wax is formed into scales by eight wax-producing glands in the abdominal segments of worker bees, which discard it in or at the hive. Beeswax consists mainly of esters of fatty acids and various long-chain alcohols.	Used cosmetically, beeswax hydrates, conditions, soothes, and calms the skin. It exfoliates, repairs damage, promotes the skin's regeneration, diminishes the appearance of the signs of aging, soothes itchiness and irritation, and creates a hydrating, long-lasting protective barrier against environmental pollutants.	While rare, some people may have an allergic reaction to beeswax.
2	Candelilla wax	Candelilla wax is a wax derived from the	It is a popular choice for vegan and cruelty-free	Allergic contact dermatitis can be caused by candelilla

		leaves of the small candelilla shrub. It consists of mainly hydrocarbons, esters of higher molecular weight(20-29%), free acids, and resins(12-14%, mainly triterpenoid esters).	cosmetics due to its plant-based origin. Candelilla wax is often used as a rheology modifier in cosmetic formulas. It controls the texture, consistency, and spreadability of products, ensuring a smooth and easy application.	wax, a natural vegetable wax found in various cosmetic products.
3	Carnauba wax	Carnauba is a wax of the leaves of the carnauba palm <i>Copernicia prunifera</i> . It is obtained by collecting and drying the leaves, beating them to loosen the wax, then refining and bleaching it. As a food additive, its E number is E903.	All of the natural waxes, carnauba wax is the toughest and has a high melting point. Both of these are critical to creating an effective and durable coating that needs to resist scratches and withstand temperatures up to 160 degrees.	Carnauba wax must never be used near the inner nose and ears or on any other particularly sensitive areas of skin. Potential side effects of Carnauba wax include dry skin, acne, rashes, inflammation, dermatitis, dizziness, nausea, blurry vision, and dryness, irritation, or burning of the eyes.
4	Ozokerite	Historically referred to as earth wax, Ozokerite is a chemically neutralized hydrocarbon wax (petroleum) with admixtures of isoparaffins and aromatics derived from coal and shale. It consists of a mixture of various hydrocarbons containing 85-87% by weight of carbon and 14-13% hydrogen.	Mineral waxes like ozokerite have film-forming and hydrophobic properties in cosmetic products. They contribute shine, protect the skin against moisture loss, and serve as consistency enhancers. Waxes used in cosmetics are highly purified not to cause skin irritation.	According to the combined chronic toxicity and carcinogenicity studies of ozokerite, long-term exposure causes systemic chronic inflammation due to a foreign body response.
5	Olive oil	Olive oil is a liquid fat obtained by pressing whole olives, the fruit of <i>Olea europaea</i>	Olive oil helps in improving cardiovascular system, preventing stroke, reduction of depression risk, reducing breast cancer risk, maintaining healthy cholesterol levels.	Regular consumption of unprocessed olive oil can increase the risks of lethal diseases like atherosclerosis, obesity, heart attack, stroke, breast cancer, and colon cancer.
6	Mineral oil	Mineral oil is any of various colorless, odorless, light mixtures of higher	Mineral oil has health benefits, such as: softening dry skin, easing constipation,	Mineral oil-based enemas can cause skin rash, itching or hives, swelling of the face, lips, or tongue; severe

		alkanes from a mineral source, particularly a distillate of petroleum, as distinct from usually edible vegetable oils.	soothing eczema, treating cradle cap, treating dandruff, removing ear wax buildup.	diarrhea; or difficulty breathing or shortness of breath. Other side effects include: oil leakage from rectum, rectal skin irritation, loose stools, lower stomach discomfort or cramps, nausea.
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Matte lipsticks contain more filling agents, like silica, but do not have many emollients. Creme lipsticks contain more waxes than oils. Sheer and long-lasting lipsticks contain more oil, while long-lasting lipsticks also contain silicone oil, which seals the colors to the wearer's lips. Glossy lipstick contains more oil to give a shiny finish to the lips.

Shimmery or frosty lipstick may contain mica, silica, and synthetic pearl particles, such as bismuth oxychloride, to give them a glittery or shimmering shine. The use of lipstick can potentially have some side effects, although they are not common for most people. These may include allergic reactions, dryness, chapping, and irritation of the lips.

Bisphenol-A (BPA) in lipstick can cause infertility and cancer. Nearly 95% of lipstick containers, including those that are claimed to be organic and chemical-free, were found to contain BPA, and this chemical is easily absorbed into lipstick applied to the lips.

BPA is an endocrine disruptor that has been found to cause reproductive problems, birth defects, and cancer.

Heavy metals in lipstick are the cause of kidney failure. Lipstick contains harmful heavy metals such as cadmium, magnesium and chromium. All these metals can cause dangerous diseases and organ damage. Too much cadmium can increase the risk of kidney failure. Regularly applying lipstick can cause serious stomach tumors.

Lead is bad for the nervous system. Lead is a common ingredient in most lipsticks. Lead is a poison that has a harmful effect on the nervous system. It can also cause brain damage, hormonal imbalances, and infertility.

Petrochemicals can affect the brain. Many lipsticks have common petrochemical ingredients, which have harmful side effects. Petrochemicals are by-products of crude oil and natural gas. It can cause endocrine disruption that acts as an obstacle to growth, development, reproduction, and intelligence.

Preservatives used in lipstick cause cancer. The preservatives used in lipsticks are formaldehyde and parabens, which are known carcinogens. Lipsticks that use these preservatives cause eye irritation, coughing, wheezing, and skin irritation. The mineral oils used in lipsticks clog the pores of the skin and are the cause of much long-term damage.

Chemicals in lipstick are harmful to the body. Although bismuth oxychloride is a chemical used to preserve lipstick, it is extremely harmful to the body. The harmful effects of lipstick are due to the carcinogenic properties of this ingredient. Propylparaben acts as a preservative, just like formaldehyde. Daily use of lipstick increases the amount of toxins.

Conclusion. Lipstick is used most of the day. Women inadvertently absorb harmful substances while eating. This increases the impact of toxins found in lipsticks. Lipsticks or lip glosses that cause women to exceed the allowable daily intake for aluminum, cadmium, chromium, and manganese. They build up in the body over time and cause toxicity. The intake of these metals is more than 20% of their accepted daily intake (ADI) limit (ADI is the maximum amount of toxins a person can be exposed to without any health risk).

References

1. Lwin, T.; Myint, C.; Win, H.; Oo, W.; Chit, K. Formulation and evaluation of lipstick with betacyanin pigment of hylocereus polyrhizus (Red Dragon Fruit). *J. Cosmet. Dermatol. Sci. Appl.* 2020, 10, 212.
2. Afandi, A.S.R.U.L.; Lazim, A.M.; Azwanida, N.N.; Bakar, M.A.; Airianah, O.B.; Fazry, S. Antibacterial properties of crude aqueous

Hylocereus polyrhizus peel extracts in lipstick formulation against gram-positive and negative bacteria. *Malaysian Appl. Biol.* 2017, 46, 29–34.

3. Ghongade, K.; Bodake, V.; Badadare, S.; Magdum, M.; Gawande, N.; Kate, S.; Waghmare, K. Formulation and Evaluation of some Cosmetic preparations using novel natural colorant from *Ixora coccinea*. *Asian J. Res. Pharm. Sci.* 2021, 11, 22–28. [[CrossRef](#)]