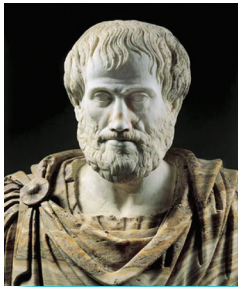




Introduction and Classification



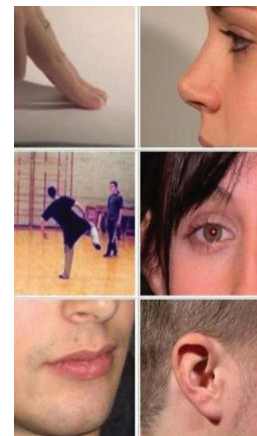
Beauty is a greater recommendation than any letter of introduction.
— Aristotle

COSMETICS: HISTORICAL BACKGROUND

The use of cosmetics as substances to enhance or protect the beauty of the human body dates back to Vedic and Puranic period. Earlier human race of tribal era used animal parts, vegetable leaves, flowers, colour stones, shells, etc. to adorn their bodies. The ancient ayurvedic literature is full of herbal cosmetic formulations. Nowadays cosmetic are considered to be one of the essential commodities of life. A subset of cosmetics is called make-up, which refers primarily to coloured products intended to alter the user's appearance. Cosmetics include skin-care creams, lotions, powders, perfumes, lipsticks, fingernail polishes, eye and facial makeup, permanent waves, hair colours, deodorants, baby products, bath oils, bubble baths, and many other types of products. Their use is widespread, especially among women in Western countries. These are over the counter

(OTC) and some time non prescription medicine (NPM) products.

Traditionally the people used home-made preparations as cosmetics to gratify their senses. Three of our five **senses** smell, sight and touch find expression in cosmetic usage. The cosmetics were used extensively by the more privileged people. From beginning, there is the tendency to have flawless skin and enhance sense of well-being through beautiful outlook. Cosmetics are mainly used for the two purposes, i.e. enhancing personal appeal of human beings and care of body parts.



The use of **kajal** for beautifying the eyes, the use of kohl or kajal has a long history in Hindu culture. The use of traditional preparations of kohl on children and adults has been considered to have health benefits, and protects from evil eyes, though in the United States it has been linked to lead poisoning and is prohibited. Avleha and reetha as a substitute for shampoo, use of flowers for preparation of perfumes and substitute for “**aroma therapy**” are just few examples to substantiate the above documented statements. In the ancient Greek and Egyptian cultures also stress has been laid on preserving the beauty. Coloured earth, malachite green, copper ore, lamp black, myrrh, etc. were used to beatify body in various ways. At the time of **Queen Cleopatra** cosmetics was at its peak. In Greek mythology **Venus** is considered as the goddess of beauty.



CHRONOLOGY OF DEVELOPMENT OF COSMETICS

The history of cosmetics spans at least 6000 years of human history, and almost every society on earth.

Circa 4000 BC The first archaeological evidence of cosmetics usage is found in **Ancient Egypt**.

Old civilizations In Indus, Romans, Greek, Chinese, Mesopotamia

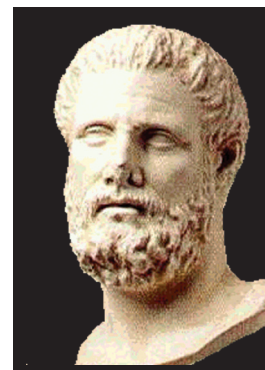


civilizations, cosmetics were associated with religious practices and used cosmetics containing mercury and often lead. The cosmetic uses of kohl and henna have their roots in North Africa. In Egypt some high priests were recognised as medical practitioners and everything related to body and healthcare was associated with medicine, their practice was freely adulterated with astrology magic, mysticism and religion. So it can be said that cosmetics were unearthed from tombs, temples and other religious places in early period.

Circa 3000 BC Chinese people began to stain their fingernails with gum arabic, gelatin, beeswax and egg.

India had a medical code since 1000 BC in the ayurveda and used the native raw material in medicine; also in religious rites and for aesthetic use to alleviate the rigours of the hot climate excavations in the Indus valley have yielded cosmetics pots of clay, stone, ivory, faience and alabaster from the third to second millennium BC. They were believed to be kohl pots. Helena and lamp black were used for eye make-up. Most popular being sandal wood perfumed body oil to give a long lasting odor. Fragment oils were used in the hair for both men and women dyed grey hair, eyebrows were painted black and brought fairly close together. There was no mention of soap being used to wash the body but clay was mentioned that was called sopocosmetics. Barley flour and butter were used as a cure of pimple and pumice stone used for whitening the teeth.

Circa 460–400 BC **Hippocrates** (father of medicine and pharmacy) dissociated medicine from magic religion and superstitions, he also advocated importance of diet, exercise, sunlight, baths and massage for good health and beauty. Theophrastus was probably the earliest Greek who wrote on the subject of perfumery. He also described the raw



material (various parts of the plants, leaves, twigs, root, wood, fruit, gum or mixture of several parts) from which perfumes were prepared.

Gupta dynasty (India) Cosmetic hygiene advanced, ladies used home made creams, oils, pastes, hair dyes, perfumes abundantly. Cosmetics made up of camphor, myrrh, saffron, aloes, sandal, vermillion (kumkum), turmeric various spices, herbs, resins, fats, etc. were given to the world by India.

Circa 50 BC Arts of cosmetics and cosmetology applying and compounding developed so much in reign of Queen Cleopatra of Alexandria.

Circa 40 BC Materia Medica prepared by Pedanios Dioscorides, Galen prepared first cooling ointment (*Ceratum refrigerans*) and cold cream.

Circa 4th or 5th centuries Henna had been used in India as a hair dye, or in the art of mehendi, in which complex designs were painted on the hands and feet, especially before a Hindu wedding and on festivals.

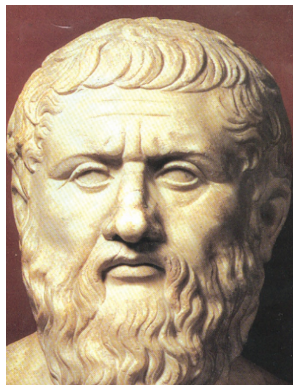
Circa 529 AD Plato established Academy of Athens for exchange of ideas from all over the world especially to cosmetics and perfumery.

Circa 936–1013 AD Abu'al-Qassim al-Zahrawi or Abulcassis, a cosmetologist and physician, wrote medical encyclopedia *Al-Tasreef*, in 30 volumes. Chapter 19 was devoted to cosmetics.

Circa 14th century Henri de Mondeville, a Norman separated cosmetics from medicine.

Paracelsus introduced Iatrochemistry and introduced a large number of chemical substances in drugs and cosmetics.

Circa 15th century Andre Le Fournier, Dean of Faculty of Medicine at University of Pans, France published a comprehensive text on beautification.



Jean Liebant, French physician and agronomist wrote several books and notes on general health, toxicology and cosmetics.

1492 AD Vasco da Gama gave new route of India to the world, the advantage for trafficking in coveted spices, medicines, cosmetics and other luxuries from India to Europe.



Circa 16th century AD renaissance period in Europe medicine and cosmetics enhanced in this period.

During Elizabethian period, cosmetics and perfumery of all kinds were used lavishly. Notable advances in the fields of alcohol distillation, wigs, tooth whiteners, dentifrices, and golden hair fashion.

Queen Elizabeth I of England was one well-known user of white lead, with which she created a look known as the Mask of Youth.

Franngalo Paladini produced a cream and toilet vinegar widely used by the ladies of Tuscan court. Thomus Tusser, in point of good husbandry, gave a list of 21 herbs suitable for strewing. Iron oxide and cinnabar (mercury sulphide) were used for rouge and lead carbonate for face powder. Egg white used to give fashionable glaze to the face. Most species to whiten teeth included ground bricks, cattle bone, red and white coral, eggshells, alum, pumice, etc. victims of spots and pimple treated with sulphur and turpentine for an hour then rubbed them with fresh butter.



1641 AD first soap made in England, law of gallantry had recommended that entire body be bathed occasionally, the hands be washed at least everyday, the face almost as often and head from time to time.

17th and 18th centuries Cosmetics still made at home raw materials purchased from pharmacies and druggists. Development of cosmetics in America contributed greatly through newspapers and legitimate pharmacies.

1760 AD Men used rouge, blackened their eyebrows and started to wear wigs.

19th century Period of extraordinary activities and accomplishment in the field of science and technology.

1800s, Queen Victoria publicly declared makeup improper. It was viewed as vulgar and acceptable only for use by actors.

1818 AD Hydrogen peroxide was discovered to be used as bleach hair.

1856 AD Discovery of borax in California, important ingredient for cold cream.

1861 AD Thomas Graham worked out on colloids and emulsion formation.

1888 AD First cosmetic deodorant was invented by an unknown inventor from Philadelphia, and was trademarked under the name Mumm®.

The 20th century make-up became fashionable in the United States of America and Europe owing to the influence of ballet and theatre stars and the most influential new development of all was that of the movie industry Hollywood. Among those who saw the opportunity for mass-market cosmetics were Max Factor, Sr., Elizabeth Arden, and Helena Rubinstein.

1905 AD Charles Nessler, a German invented mechanical means of putting permanent curls in hair with borax.

1907 AD Modern synthetic hair dye was invented by **Eugene Schueller**, founder of L'Oréal.



1914–1919 AD World War I created many problems for cosmetic and medical industry. After the First World War, the flapper look came into fashion for the first time, and with it came

cosmetics: dark eyes, red lipstick, red nail polish, and the suntan, invented as a fashion statement by Coco Chanel. Previously, suntans had only been sported by agricultural workers, while fashionable women kept their skins as pale as possible.

1920 AD Beauty saloons flourished in America and Europe.

1922 AD King Tut-ankhamen's tomb was opened in at pyramids, cosmetics were found inside that were still fragrant and perfectly usable. Palettes were also often found in pyramids, these were originally used for grinding and mixing face and eye powders.



1923 AD Poucher's book on cosmetics first of its kind in English published.

1936 AD Eugene Schueller invented sunscreen lotion.

Post World War II 1939–1945 and after: Period of growth of chemical and pharmaceutical industry. Availability of synthetic colours and pigments and detergents revolutionised cosmetics industry.

1940 AD Brushless non-lathering shaving cream was introduced.

1952 AD Roll-on deodorant launched. Aerosol deodorant developed.

The popularity of cosmetics in the 20th century has increased rapidly. Especially in the United States, cosmetics are being used by teens (especially teen girls) at a younger and younger age. Many companies have catered to this expanding market by introducing more flavoured lipsticks and glosses, cosmetics packaged in glittery, sparkly packaging and marketing and advertising using young girls.

With change of time the focus has shifted from perfect image to simple one. The field of cosmetics is now no longer (confined to females) predominantly catering to females only. The women

feel inspired when they have a mental feeling that they are beautiful. Cosmetics are finding greatest acceptance in daily use of males also. People are highly style-quotient and they spruce-up on all occasions through cosmetic usage.

The use of perfumes, deospray, sun screen lotions, lip guards, talcum powders, bathing perfumes are just few stances to stress the dominating role of cosmetics in life of males also.

The use of cosmetics, with time, has transcended the barriers of age. These are now being used from small kids in form of baby powder and baby soaps. To younger generation including teenagers in form of perfumes, deosprays, beauty creams, to middle aged and elder in form of age defying lotions, enriching creams, anti-wrinkle creams.

Certain cosmetics have transcended the barriers of age and gender and have assumed the role of protestants as they are now being used in form of lip gels, cold cream, sunscreens.

The cosmetics are now finding greater distribution among all the economic sections of our society. The acceptance of cosmetics as appearance enhancers by the people from lower strata to upper privileged has created a congenial environment for the growth of cosmetic industry. The use of bathing soap, toothpaste as essential commodities stresses the importance of cosmetics in day-to-day life.

Cosmetics are the external preparations, which are applied to skin, hair, nails for various purposes like protecting, covering, colouring, beautifying, cleansing and nourishing. Cosmetics may be classified according to the body part over which they are applied.

2000 and after **Nanotechnology** is being applied in cosmetics.

Cosmetics enhance a person's appearance. It is especially useful for people who like to have fun. Cosmetics are considered essential for today's life style. The cosmetics help in addressing the sun-burnt and damaged skin. The cosmetic industry claims



to use healthy and tested products but many critics argue that the cosmetic industry's claims are not reliable. It should be remembered that cosmetics improve the appearance of a person but it does not succeed in making him look entirely different. But, cosmetics have the capability to alter a person's appearance.

The overwhelming population in the world believes that cosmetics have a positive effect on a person's appearance. The U.S. consumers spend more than \$3.4 billion on the cosmetic products.

People are advised to use those cosmetics that would suit their eyes, hair and skin. Cosmetics help a person to attain various kinds of looks. It helps a person to attain the natural look, classic look or an upscale look. The 'concealer' helps the person to cover blemishes. The foundation of the make-up should match the colour of the skin.

The following are the positive effects of cosmetics on a person's appearance

- It helps in increasing the moisture level of the skin.
- It helps in reducing the fine lines.
- It hides the blemishes and the dark circles.
- It tones the skin and enables improvement of the skin.
- The cosmetics give beautiful and a clean appearance.
- The cosmetics reduce wrinkles and puffiness.

The negative effects of the cosmetics on a person's appearance:

- Cosmetics cannot put a stop to the ageing process as the wrinkles return after a certain period of time.
- It was established that the cosmetics were contaminated with molds and other micro-organisms.
- The claims made by the cosmetic companies are not necessarily true. Various companies claim that their product is 'hypoallergenic'. This may not be true, as the product is not tested or regulated by anybody.
- The cosmetics do not contain sufficient extracts from the plants so they are not healthy to use.

- There is no proof that the vitamins are beneficial to the skin. It is quite a possibility that the vitamins do not have any impact on the skin.

CLASSIFICATION OF COSMETICS

A detailed classification is given below:

1. Cosmetics for Skin

Cosmetics used for skin can further be divided into two groups

a. *Those which are applied for beautifying and protecting, e.g.*

- *Skin creams, lotions, milks and emulsion:* Used to moisturize the face and body, e.g. vanishing cream, cold cream, cleansing cream, foundation cream, massage cream, all purpose cream, anti-wrinkle cream, bleach cream, moisturizing lotions, hand lotions, face wash, anti-ageing products, lip balm, lip salve.
- *Face powders, face packs and masks*
 - *Powders:* Used to set the foundation, giving a matte finishes, e.g. face powders, and face packs, body powders or talcum powder.
 - *Compacts:* Round cake of face powders, cake.
- *Astringents and skin tonics:* Antiperspirants, astringent lotions, astringent emulsion, stick astringents, astringents in gel form.
- *Sunscreen, suntan and anti-sunburn preparations:* Anti-sunburn cream, prickly heat powders, sunscreen lotion (to protect the skin from damaging UV radiation).

• *Coloured make-up preparations:*

- *Lips make-up*
Lipsticks, lip gloss, lip pencil, lip-duo.
- *Cheeks make-up*
Rouges, blush or blusher (used to colour the



cheeks and emphasize the cheekbones. This comes in powder, cream and gel forms).

- *Eye make-up preparations:* Eye shadows, mascara, kohl, foundation (used to colour the face and conceal flaws to produce an impression of health and youth. Usually a liquid, cream or powder), bronzer (used to create a more tanned or sun-kissed looks).



- *Concealer:* A type of thick opaque make up used to cover pimples, various spots and inconsistencies in the skin.
- Skin lighteners or bleaches
- Anti perspirants and deodorants
- Bath preparations.

b. *Cosmetics which are applied on skin for nourishment of skin*

- *Creams* Vitamin creams, moisturizer, hormones cream, fruit juice cream.
- *Lotion* Treatment products to repair or hide skin imperfections (acne, dark circles under eyes, wrinkles, etc.).

2. Cosmetics for Hair

Cosmetic used for hair can be classified into following groups

- a. *Preparation for cleansing, e.g. shampoos*
Clear liquid shampoo, liquid cream or lotion shampoo, solid cream and gel shampoo, oil shampoo, powder shampoo, aerosol shampoo, dry shampoo, baby shampoo, antidandruff and medicated shampoo.



- b. Hair grooming preparation, e.g. waving lotions, hair setting lotions, sprays.
 - c. Hair straighteners.
 - d. Hair tonics and conditioners.
 - e. Antidandruff preparations.
 - f. Hair removers.
 - g. Hair colouring and bleaching preparations.
 - h. Preparation for colouring of eyelids and eyebrows—Mascara, eye liners, eye shadows.
3. The **decoration of nails** is in term of shine is done by applying abrasive materials like stannic oxide and powdered silica. In general cosmetics applied on nails can be classified as:
- a. Nail lacquers and polishes
 - b. Enamel removers
 - c. Nail bleaches
 - d. Nail white
 - e. Cuticle removers
 - f. Nail cream
 - g. Nail strengtheners.



4. Cosmetics for Dental Care

These preparations are normally used from the point of view of hygiene for dental and oral cavity. White and shiny teeth and good breath are considered as a part of cosmetic personality. All kind of preparations for cleansing of teeth are manufactured and marketed by cosmetics companies. These preparations can be classified in two groups.

1. Preparations used for cleansing of teeth, e.g. Dentifrices
 - a. Toothpowders
 - b. Toothpastes.
2. Proportion which are used as hygienic product for oral cavity
 - a. Mouth washes
 - b. Gargles



Cosmetics can also be described by the form of the product, as well as the area for application. Cosmetics can be liquid or cream; emulsions; powders, (both pressed and loose); dispersions; and anhydrous creams or sticks.

1. Cosmetics according to their functions

- a. *Decorative function* Make-up, blushers, rouge, nail polish, eyelashes, lipsticks, etc.
- b. *Corrective function* Dry cream and heavy face powder.
- c. *Protective function* Cold cream, lip balm, suntan preparations.
- d. *Curative function* Anti-perspirants, hair preparation, deodorant, mouthwash.
- e. *Dressing and washing purpose* Various toiletries (perfumes, after shave lotion, body wash, deodorant, etc.)

2. Cosmetics according to their site of action:

- a. *Skin* Powder, cream, lotion, deodorant cleansing preparation.
- b. *Hair* Shampoos, tonics, hair dressings, hair waving, beard softener, shaving preparation, hair remover, brilliantine, depilatories.
- c. *Nails* Nail polish, polish remover and other manicure preparations.
- d. *Teeth and mouth* Dentifrices (tooth powder, tooth paste and gel), mouth washes.
- e. *Borderline and kindred products* Eye products, foot powder and application, insect repellent.

3. Cosmetics according to physical nature

- a. *Aerosols* Hair set, perfumes, hair and body sprays.
- b. *Cakes* Rouge, compact shaving cake, toilet soap.
- c. *Emulsion* Cold cream, cleansing cream, vanishing cream.
- d. *Jellies* Hand jelly, wave set jelly, brilliantine jelly.
- e. *Mucilage* Hand lotion, wave set.
- f. *Oil* Hair oil, body oil, brilliantine.
- g. *Paste* Tooth paste, deodorant paste.
- h. *Powder* Face powder tooth powder, body powder.
- i. *Soap* Shampoo soap, shaving soap.
- j. *Solution* After shave lotion, hair sets, shampoos, astringents.

- k. *Stick* Lipsticks, deodorant stick.
- l. *Suspension* Liquid powder, lotion.

4. *Extreme cosmetics*

Prescription or surgical cosmetic procedures

- Cosmetic contact lenses
- Cosmetic coloured contact lenses.

In major cosmetic surgery many techniques, such as

- Microdermabrasion,
- Chemical or physical peels and
- Removing the oldest, top layers of skin cells are done. The younger layers of skin left behind appear more plump, youthful, and soft.

Permanent application of pigments (tattooing) is also used cosmetically.

5. *Other classification of cosmetics are:*

1. *Baby products*

- a. Baby shampoos
- b. Lotions, oils, powders and creams
- c. Other baby products.

2. *Bath preparations*

- a. Bath oils, tablets and salts
- b. Bubble baths
- c. Bath capsules
- d. Other bath preparations.

3. *Eye makeup preparations*

- a. Eyebrow pencil
- b. Eyeliner
- c. Eye shadow
- d. Eye lotion
- e. Eye makeup remover
- f. Mascara
- g. Other eye makeup preparations.

4. *Fragrance preparations*

- a. Cologne and toilet waters
- b. Perfumes
- c. Powders (dusting and talcum, excluding aftershave talc)
- d. Sachets
- e. Other fragrance preparations

5. *Hair preparations (non-colouring)*

- a. Hair conditioner
- b. Hair spray (aerosol fixatives)
- c. Hair straighteners
- d. Permanent waves
- e. Rinses (non-coloring)
- f. Shampoos (non-coloring)

- g. Tonics, dressings, and other hair grooming aids

h. Wave sets

i. Other hair preparations.

6. *Hair colouring preparations*

- a. Hair dyes and colours (all types requiring caution statements and patch tests)
- b. Hair tints
- c. Hair rinses (colouring)
- d. Hair shampoos (colouring)
- e. Hair colour sprays (aerosol)
- f. Hair lighteners with colour
- g. Hair bleaches
- h. Other hair colouring preparations.

7. *Makeup preparations (not for eye)*

- a. Blushers (all types)
- b. Face powders
- c. Foundations
- d. Leg and body paints
- e. Lipstick
- f. Makeup bases
- g. Rouges
- h. Makeup fixatives
- i. Other makeup preparations.

8. *Manicuring preparations*

- a. Basecoats and undercoats
- b. Cuticle softeners
- c. Nail creams and lotions
- d. Nail extenders
- e. Nail polish and enamel
- f. Nail polish and enamel removers
- g. Other manicuring preparations

9. *Oral hygiene products*

- a. Dentifrices (aerosol, liquid, pastes and powders)
- b. Mouthwashes and breath fresheners (liquids and sprays)
- c. Other oral hygiene products.

10. *Personal cleanliness*

- a. Bath soaps and detergents
- b. Deodorants (underarm)
- c. Vaginal douches
- d. Feminine hygiene deodorants
- e. Other personal cleanliness products.

11. *Shaving preparations*

- a. Aftershave lotion
- b. Beard softeners

- c. Men's talc
- d. Preshave lotions (all types)
- e. Shaving cream (aerosol, brushless and lather)
- f. Shaving soap (cakes, sticks, etc.)
- g. Other shaving preparations.

12. Skin care preparations

- a. Cleansing (cold creams, cleansing lotions, liquids and pads)
- b. Depilatories
- c. Face and neck (excluding shaving preparations)
- d. Body and hand (excluding shaving preparations)
- e. Foot powders and sprays

- f. Moisturizing creams and lotions
- g. Night creams and lotions
- h. Paste masks (mud packs)
- i. Skin fresheners
- j. Other skincare preparations.

13. Suntan preparations

- a. Suntan gels, creams and liquids
- b. Indoor tanning preparations
- c. Other suntan preparations,

Coloured cosmetics: Facial foundations, facial powders, pressed powder, base, blush, rouge, acne cosmetica, cosmetic-associated acne, sunscreen and acne, self-tanning products, sunless tanning, lipstick, camouflage makeup, scar, scarring, mascara, eye shadow, etc.

