



BEAUTY ANATOMY SCIENCES

- The skin is the largest organ by surface area and weight, with three main layers: epidermis, dermis, and subcutaneous.
- The stratum lucidum is a clear, thin layer found only in the thick skin of the palms and soles.
- The stratum corneum is the outermost layer; its dead, flattened keratinocytes are what cosmetic exfoliation targets.
- The subcutaneous (subcutis) layer is mostly adipose (fat) and connective tissue that cushions and insulates the body.
- Sebaceous glands secrete sebum, the oily substance that lubricates skin and hair; sudoriferous glands produce sweat.
- Anagen is the active growth phase.
- Catagen is the short transition phase between active growth and resting; it lasts roughly 1–2 weeks.

BEAUTY CHEMISTRY

- The pH scale runs from 0 to 14.
- Healthy hair and skin sit in a slightly acidic range of about 4.5 to 5.5.
- The pH scale is logarithmic, so each whole number is a tenfold change.
- Sodium hydroxide relaxers are very alkaline, with a pH of about 12 to 14.
- No-lye relaxers most commonly use guanidine hydroxide (mixed on site from calcium hydroxide and guanidine carbonate).
- Permanent waving and chemical relaxing both break and reform the disulfide bonds in keratin.
- Cold waves use ammonium thioglycolate (ATG) as the waving lotion.

BEAUTY ELECTRICITY

- Direct current (DC) is a constant, one-directional flow of electrons.
- Standard United States wall outlets deliver alternating current (AC) at roughly 120 volts and 60 hertz.
- Faradic current is an interrupted or pulsating alternating current.
- Desincrustation uses the negative pole (cathode) with an alkaline solution.
- High-frequency (Tesla) current is a rapidly oscillating AC.
- Microcurrent is extremely low-amperage current measured in millionths of an ampere.
- Infrared radiation lies just beyond visible red light.

BEAUTY ETHICS CA LAW

- Under BPC §7316, an esthetician license covers skin care, waxing, and non-invasive facial treatments. **BPC §7316**
- BPC §7317 makes it unlawful both to practice without a license and to aid or abet unlicensed practice. **BPC §7317**
- BBC licenses (cosmetologist, barber, esthetician, manicurist, hairstylist, and establishment licenses) renew every **2 years**. **BPC §7321**
- Unlike many other states, California does NOT require continuing education for renewal of BBC licenses.
- By accepting a BBC establishment license, owners consent to reasonable, unannounced inspections during business hours.
- Informed consent and consultation are professional and legal standards before chemical services.
- BBC citations include the right to appeal.

BEAUTY HAIR SERVICES

- Elasticity is the ability of a hair strand to stretch and return without breaking.
- High porosity hair has a raised, damaged cuticle layer that absorbs liquids quickly and processes chemicals faster.
- Texture refers to the diameter of an individual strand and is described as fine, medium, or coarse.
- Surfactants (surface-active agents) have a head that attracts water and a tail that attracts oil.
- Warm water that is comfortable to the inside of the operator's wrist is the safe and standard choice.
- A razor slices the hair on an angle, so each strand is shorter on one side and longer on the other.
- The parietal ridge is the widest area of the head, running roughly along where a hat band sits.

BEAUTY SKIN NAIL SERVICES

- California prohibits the use of methyl methacrylate (MMA) liquid monomer in nail products. **BPC §7315**
- California sanitation rules prohibit double-dipping wax applicators. **16 CCR §979**
- Isotretinoin thins the skin and dramatically weakens its barrier.
- Combination skin has different conditions in different zones, typically oily forehead/nose/chin (T-zone) and drier cheeks.
- The facial nerve (cranial nerve VII) controls the muscles of facial expression.
- Manicurists must NOT cut living tissue.
- A California manicurist license covers care of the nails and surrounding skin of the hands and feet. **BPC §7316**

BEAUTY INFECTION CONTROL

- Standard household bleach is ~5.25% sodium hypochlorite (~52,500 ppm).
- Cal/OSHA §1532.1 limits occupational lead exposure. **Cal/OSHA 8 CCR §1532.1**
- Engineering controls remove or reduce a hazard at its source (e.g., source-capture ventilation, ventilated nail tables).

