

Glossary

3-D art Any art that protrudes from the nail.

abductor (ab-DUK-tur) Muscles that separate the fingers and toes.

abductor digiti minimi A muscle of the foot that separates the toes.

abductor hallucis (ab-DUK-tohr ha-LU-sis) A muscle of the foot that moves the great toe and helps maintain balance while walking and standing.

abrasives A term used to describe nail files and buffers.

ABS See **acrylonitrile butadiene styrene**.

acetone A colorless, inflammable liquid; miscible with water, alcohol, and ether; and having a sweetish odor or burning taste; used as a solvent.

acid A solution that has a pH below 7.0 and turns litmus paper from blue to red.

acidic See **acid**.

acne A skin disorder characterized by chronic inflammation of the sebaceous glands from retained secretions and *Propionibacterium acnes* (*p. acnes*) bacteria.

acne papule A pimple; a small circumscribed elevation on the skin that contains no fluid but may develop pus.

acquired immunity Immunity that the body develops after overcoming a disease through an inoculation (such as a flu vaccination) or through exposure to natural allergens, such as pollen, cat dander, and ragweed.

acquired immunodeficiency syndrome (uh-KWY-erd ih-MYOO-no-di-FISH-en-see sin-drohm) (AIDS) A disease caused by the HIV virus, which breaks down the body's immune system.

acrylates Specialized acrylic monomers (cross-linking) that have good adhesion to the natural nail plate and polymerize in minutes. Used to make UV gels.

acrylic (a-KRYL-yk) The name for an entire family of chemicals used to make all types of nail enhancements and adhesives, including wraps, glues, UV gels, and liquid/powder systems.

acrylonitrile butadiene styrene (ABS) A common thermoplastic used to make light, rigid, molded nail tips.

adductor (ah-DUK-tur) The muscle at the base of each finger that draws the fingers together.

adhesion A chemical reaction resulting in two surfaces sticking together.

adhesive An agent that causes two surfaces to stick together.

adhesive nail enhancement A nail enhancement that is strengthened using nail adhesive.

adipose tissue (ADD-ih-pohz TISH-oo) See **subcutaneous tissue**.

adrenal glands (uh-DREEN-ul GLANDZ) Glands that control metabolic processes of the body, including the fight-or-flight response.

adverse skin reaction An abnormal skin condition caused by a chemical or physical irritant or a corrosive or allergy-producing substance.

AIDS See **acquired immunodeficiency syndrome**.

airbrush stencil A precut sheet of clear, thin plastic with a sticky backing that is cut by a machine into various shapes or designs. Any variety of paper, lace, mesh, fabric or other material can be used as a stencil.

albinism (AL-bi-niz-em) Congenital leukoderma, or the absence of melanin pigment of the body, including the hair, skin, and eyes.

alkali (AL-kuh-ly) A solution that has a pH above 7.0 and turns litmus paper from red to blue.

alkaline See **alkali**.

allergic contact dermatitis Skin that becomes allergic to an ingredient in a product; often caused by prolonged or repeated contact.

allergy A reaction due to an extreme sensitivity to certain foods, chemicals, or other normally harmless substances.

alternating current (AWL-tur-nayt-ing KUR-rent) (AC) Rapid and interrupted current, flowing first in one direction and then in the opposite direction, changing directions 60 times per second.

amp Also known as **ampere**; a unit that measures the strength of an electric current (the number of electrons flowing through a wire).

ampere (AM-peer) See **amp**.

anabolism (uh-NAB-uh-liz-um) Constructive metabolism; the process of combining smaller molecules to build larger and more complex molecules.

analogous colors Colors that are located beside each other on the color wheel.

anatomy The study of the human body structure that can be seen with the naked eye as well as what the body is made up of; the science of the structure of organisms or of their parts.

anhidrosis (an-hih-DROH-sis) A deficiency in perspiration, often a result of fever or certain skin diseases.

anion An ion with a negative electrical charge.

anterior tibial (TIB-ee-al) artery See **popliteal artery**.

anterior tibial nerve See **deep peroneal nerve**.

antiseptics (ant-ih-SEP-tiks) Chemical germicides formulated for use on the skin that are registered and regulated by the FDA.

aorta (ay-ORT-uh) The largest artery in the body. The arterial trunk that carries oxygenated blood from the heart to be distributed by branch arteries through the body.

apex Also known as *arch*; the area of the nail that has all of the strength; usually oval-shaped; located in the center of the nail.

aromatherapy Involves the use of highly concentrated, nonoily, and volatile essential oils to induce such reactions as relaxation or invigoration or simply to create a pleasant fragrance during the service.

arrector pili muscle A tiny, involuntary muscle at the base of the hair follicle that causes "goose bumps."

arteries (AR-tuh-rees) Thick-walled muscular and flexible tubes that carry oxygenated blood from the heart to the capillaries.

asymptomatic Showing no symptoms or signs of infection.

atom The smallest particle of an element that still retains the properties of that element.

atrium (AY-tree-um) One of the two upper chambers of the heart, through which blood is pumped to the ventricles.

autonomic (aw-toh-NAHM-ik) nervous system (ANS)

The part of the nervous system that controls the involuntary muscles and regulates the action of the smooth muscles, glands, blood vessels, and heart.

axon (AK-sahn) and axon terminal The extension of a neuron by which impulses are sent away from the body to other neurons, glands, or muscles.

bacilli (bah-SIL-ee) (singular: bacillus) Short, rod-shaped bacteria.

bacteria (bak-TEER-ee-ah) (singular: bacterium) One-celled microorganisms having both plant and animal characteristics. Some are harmful, some are harmless.

bactericidal (back-teer-uh-SYD-ul) Capable of destroying bacteria.

basal cell carcinoma (BAY-zul SEL kar-sin-OH-muh) The most common and least severe type of skin cancer; often characterized by light or pearly nodules.

basal cell layer Also known as the *stratum germinativum*; the bottom, live layer of the epidermis, where cells divide and begin the keratinization process.

Beau's lines Visible depressions running across the width of the natural nail plate.

bed epithelium (ep-ih-THEE-lee-um) A thin layer of tissue between the nail plate and the nail bed.

belly (brush) The midsection of the brush bristles; the area of the brush that retains the most paint.

belly (muscle) The middle part of a muscle.

bicep (BY-sep) The muscle producing the contour of the front and inner side of the upper arm; it lifts the forearm and flexes the elbow.

binary fission The division of bacteria cells into two new cells called daughter cells.

bioburden The number of viable organisms in or on an object or surface or the organic material on the surface of an object before decontamination.

biofilms Thin, glue-like layers of a potentially infectious microorganism that adheres tightly to the insides of water pipes or containers and that is very difficult to remove without vigorous scrubbing.

bit A filing tool that inserts into a handpiece that actually does the filing.

blood Nutritive fluid circulating through the circulatory system (heart, veins, arteries, and capillaries) to supply oxygen and nutrients to cells and tissues and to remove carbon dioxide and waste from them.

blood spill See **exposure incident**.

blood vascular system Group of structures (heart, arteries, veins, and capillaries) that distributes blood throughout the body.

bloodborne pathogens Disease-causing microorganisms carried in the body by blood or body fluids.

body systems Groups of bodily organs acting together to perform one or more functions. The human body is composed of 11 major systems.

booth rental Also known as *chair rental*; renting a booth or station in a salon.

brain Part of the central nervous system contained in the cranium; the largest and most complex nerve tissue; controls sensation, muscles, gland activity and the power to think and feel emotions.

briefing Usually 15 to 30 minutes before the start of the competition and during which the competition director or head judge reviews the rules and guidelines to ensure everyone understands and is able to comply.

bromhidrosis (broh-mih-DROH-sis) Foul-smelling perspiration, usually noticeable in the armpits or on the feet.

bruised nail bed A condition in which a blood clot forms under the nail plate, forming a dark purplish spot; usually due to physical injury.

bullock (BULL-uh) (plural: bullae) A large blister containing a watery fluid; similar to a vesicle but larger.

business plan The written plan of a business as it is seen in the present and envisioned in the future.

business regulations and laws Any and all local, state, and federal regulations and laws that must be complied with when one decides to open a salon or rent a booth.

callus (SIK-uh-triks) See *keratoma*.

callus softener products Help to soften and smooth calluses, especially on heels and over pressure points.

capillary A tiny, thin-walled blood vessel that connects the smaller arteries to the veins.

capital Money needed to invest in a business.

cardiac muscle The involuntary muscle that is the heart. This type of muscle is not found in any other part of the body.

cardiovascular system (KAHRD-ee-oh-VAS-kyoo-lur SIS-tum) See *circulatory system*.

carpus (KAR-pus) The wrist; a flexible joint composed of a group of eight small, irregular bones held together by ligaments.

catabolism (kuh-TAB-uh-liz-um) The phase of metabolism in which larger, more complex molecules are broken down within the cells to create smaller, simpler molecules.

catalysts (CAT-a-lists) Substances that speed up chemical reactions.

cation (KAT-eye-un) An ion with a positive electrical charge.

cell membrane (SELL MEM-brayn) The cell part that encloses and holds the protoplasm while still allowing soluble substances (e.g., nutrients or waste by-products), to enter and leave the cell.

cells The basic unit of all living things from bacterial to plants and animals and including human beings; a minute mass of protoplasm capable of performing all the fundamental functions of life.

central nervous system Consists of the brain, spinal cord, spinal nerves, and cranial nerves.

chain reaction Also known as a *polymerization reaction*; a process that joins together monomers to create very long polymer chains.

chelating detergents Detergents that contain chelating agents to prevent hard tap water from reducing the effectiveness of the cleanser.

chelating soaps Soaps that contain chelating agents to prevent hard tap water from reducing the effectiveness of the cleanser.

chemical A substance obtained by a chemical process or producing a chemical effect.

chemical change A change in the chemical and physical properties of a substance by a chemical reaction that creates a new substance or substances.

chemical properties Those characteristics that can only be determined by a chemical reaction and a chemical change in the substance.

chemistry The science that deals with the composition, structures, and properties of matter and how matter changes under different conditions.

chloasma (kloh-AZ-mah) A condition characterized by increased pigmentation on the skin from dark spots that are not elevated.

cicatrix (SIK-uh-triks) See *scar*.

circuit breaker (SUR-kit BRAYK-ar) A switch that automatically interrupts or shuts off an electric circuit at the first indication of overload.

circulatory system Also known as the *cardiovascular* or *vascular system*; the system that controls the steady circulation of the blood through the body by means of the heart and blood vessels.

clean A mechanical process (scrubbing) using soap and water or detergent and water to remove all visible dirt, debris, and many disease-causing germs from tools, implements and equipment. Proper cleaning also removes invisible debris that interferes with disinfection.

client base Customers who are loyal to a particular nail technician.

client consultation Also known as needs assessment, the verbal communication with a client that determines what the client's needs are and how to achieve them.

client consultation form A questionnaire used to gather information about a client's needs, history, and preferences; filled out before the client's first service is performed at the salon.

coatings Products, including nail polish, top coats, artificial nail enhancements, and adhesives, that cover the nail plate with a hard film.

cocci (KOK-sy) Round-shaped bacteria that appear singly (alone) or in groups (staphylococci; streptococci; diplococci).

collagen A fibrous protein that gives the skin form and strength.

color The light seen reflected from a surface.

color blocking Creating blocks or sections of color on the nail.

color fading Also known as *color graduation*; when one color fades into the other, and the meeting point is a combination of the two.

color wheel A color guide that illustrates and identifies the primary, secondary, tertiary, and complementary colors.

comedo (plural: comedones) A hair follicle filled with keratin and sebum. When the sebum of the comedo is exposed to the environment, it oxidizes and turns black (blackhead); when the follicle is closed and not exposed to the environment, the comedone is a white or cream color (whitehead).

commission A percentage of the revenue that the salon takes in from services performed by a particular nail technician.

common peroneal nerve (KAHM-un per-oh-NEE-al NURV) A division of the sciatic nerve that extends from behind the knee to wind around the head of the fibula to the front of the leg, where it divides into two branches.

competition kit A kit you must take with you containing all the products you will use or might use in a competition.

complementary colors Colors located directly opposite each other on the color wheel.

complete electrical circuit (kahm-PLEET ee-LEK-trih-kul SUR-kit) The path of an electric current, from the generating source, through conductors, and back to its original source.

compound molecules Combinations of two or more atoms of different elements united together chemically.

concentric bits Balanced bits that do not wobble or vibrate.

conductor (kahn-DUK-tor) Any substance that conducts electricity.

connective tissue Fibrous tissue that binds together, protects, and supports the various parts of the body. Examples of connective tissue are bone, cartilage, ligaments, tendons, fascia, and fat or adipose tissue.

consumption supplies Supplies used in daily business operations.

contact dermatitis An eruptive skin infection caused by touching certain substances to the skin; may be short or long term.

contagious disease (kon-TAY-jus dih-ZEEZ) Also known as a communicable disease; disease that is spread from one person to another. Some of the more contagious diseases are the common cold, ringworm, conjunctivitis (pinkeye), viral infections, and natural nail or toe and foot infections.

contamination The presence, or the reasonably anticipated presence, of blood or other potentially infectious materials on an item's surface, or visible debris/residues, such as dust, hair and skin.

corium (KOH-ree-um) See *dermis*.

corporation A business whose ownership is shared by three or more people called stockholders.

corrosive A substance capable of seriously damaging skin, eyes, or other soft tissues on contact. Some corrosives have delayed action (minutes); others affect the skin almost instantly.

cosmetology The art and science of beautifying and improving the skin, nails, and hair; the study of cosmetics and their application.

cover letter A letter of introduction that highlights a job seeker's goals, skills, and accomplishments. It can provide a more detailed overview of the key points in a résumé.

cross-linker A monomer that joins together different polymer chains.

crust Dead cells that form over a wound or blemish while it is healing; an accumulation of sebum and pus, sometimes mixed with epidermal material.

cure Harden through exposure to UV light.

curlette A small, spoon-shaped instrument used for cleaning debris from the edges of the nail plate.

cuticle (KYOO-tih-kul) The dead, colorless tissue attached to the nail plate.

cutis (KYOO-tis) See *dermis*.

cyanoacrylate A specialized acrylic monomer (non-cross-linking) that has excellent adhesion to the natural nail plate and polymerizes in seconds; used to make wraps and nail adhesives.

cyst (SIST) A closed, abnormally developed sac, containing fluid, semifluid, or morbid matter above or below the skin.

cytoplasm (sy-toh-PLAZ-um) The part of the protoplasm that exists outside of the nucleus and inside the cell wall. The protoplasm surrounds the nucleus and is needed for growth, reproduction, and self-repair.

Dappen dish A special container for monomer liquid and polymer powder.

decontamination The removal of blood or potentially infectious materials on an item's surface and the removal of visible debris or residue such as dust, hair, and skin.

deductive reasoning The process of reaching logical conclusions by employing logical reasoning.

deep peroneal nerve Also known as the *anterior tibial nerve*; extends down the front of the leg, behind the muscles. It supplies impulses to these muscles and also to the muscles and skin on the top of the foot and adjacent sides of the first and second toes.

deltoid (DEL-toyd) A large, triangular muscle covering the shoulder joint that allows the arm to extend outward and to the side of the body.

demographics Information about the specific population including data on race, age, income, and educational attainment.

dendrites (DEN-dryts) Tree-like branches of nerve fibers extending from a nerve cell; short nerve fibers that carry impulses toward the cell and receive impulses from other neurons.

derma See *dermis*.

dermatitis (dur-muh-TY-tis) An abnormal inflammatory condition of the skin.

dermatologist Physician engaged in the practice of treating the skin, its structures, functions, and diseases.

dermatology The medical branch of science that deals with the study of skin and its nature, structure, functions, diseases, and treatments.

dermis (DUR-mis) Also known as the *derma*, *corium*, or *cutis*; the underlying or inner layer of the skin.

design sculpture Nail enhancements that have inlaid designs and are produced using either monomer liquid and polymer powder or UV gel products.

diagnose See *diagnosis*.

diagnosis A determination of the nature of a disease from its symptoms and/or diagnostic tests. Federal regulations prohibit nail professionals from performing a diagnosis.

diaphragm (DY-uh-fram) The muscular wall that separates the thorax from the abdominal region and helps control breathing.

digestive enzymes (dy-JES-tiv EN-zymz) (gastrointestinal system) Chemicals that change certain types of food into a form that can be used by the body.

digestive system (dy-JES-tiv SIS-tum) The mouth, stomach, intestines, and salivary and gastric glands that change food into nutrients and wastes.

digit See *phalanges*.

digital (DIJ-ut-tul) nerve A nerve that, with its branches, supplies the fingers and toes.

dimethyl urea (DMU) hardener A hardener that adds cross-links to the natural nail plate; however, unlike hardeners containing formaldehyde, DMU does not cause adverse skin reactions.

diplococci (dip-lo-KOK-sy) Spherical bacteria that grow in pairs and cause diseases such as pneumonia.

direct current (dy-REKT KUR-unt) (DC) Constant, even-flowing current that travels in one direction.

direct transmission The transmission of blood or body fluids through touching (including shaking hands), kissing, coughing, sneezing, and talking.

disease An abnormal condition of all or part of the body, or its systems or organs, that makes the body incapable of carrying on normal function.

disinfectants (dis-in-FEK-tents) EPA-registered products used on nonporous surfaces that destroy organisms such as bacteria, viruses, and fungi, when used according to the disinfectant label instructions.

disinfection (disinfecting) A chemical process that uses specific products to destroy organisms on nonporous surfaces. This process requires the use of an EPA-registered disinfectant prepared and used following the manufacturer's instructions. All surfaces must be cleaned/sanitized prior to disinfection.

disposable See *single-use*.

disposable implements Implements that cannot be reused and must be thrown away after a single use.

dorsal A nerve that extends up from the toes and foot, just under the skin, supplying impulses to the toes and foot as well as the muscles and skin of the leg, where it is called the superficial peroneal nerve or the musculocutaneous nerve.

dorsal nerve (DOOR-sal NURV) Also known as *dorsal cutaneous nerve*; See *dorsal*.

dorsalis pedis artery See *popliteal artery*.

eczema (EG-zuh-muh) An inflammatory, painful itching disease of the skin, acute or chronic in nature, presenting many forms of dry or moist lesions.

effective communication The act of sharing information between two people (or groups of people) so that the information is successfully understood.

efferent nerves (EF-uh-rent NURVS) See *motor nerves*.

efficacy The effectiveness with which a disinfecting solution kills specific organisms when used according to the label instructions.

effleurage (EF-loo-rahzh) A succession of strokes performed by gliding the hands over an area of the body with varying degrees of pressure or contact.

eggshell nail A noticeably thin, white nail plate that is more flexible than normal.

elastin A protein similar to collagen that forms elastic tissue.

electric current The flow of electricity along a conductor.

electrical ground (ee-lek-TRIK-ul GROWND) Completes an electrical circuit and carries the current safely away.

electrical safety devices Devices designed to detect and protect you from an overload, a short circuit, or an improper ground caused by faulty wiring or water.

electricity ee-lek-TRIS-ih-tee The movement of electrons from one atom to another along a conductor. Electricity is a form of energy that, when in motion, exhibits magnetic, chemical, or thermal effects.

electromagnetic radiation Also called "radiant energy," it carries, or radiates, energy through space on waves.

element The simplest form of matter, which cannot be broken down into a simpler substance without a loss of identity.

elemental molecules Chemical combinations of atoms of the same element.

employee evaluations A periodic assessment of an employee's skills, attitudes, and behaviors and how they are used and perceived in the work setting.

employment portfolio A collection of photos and documents that reflect a person's skills, accomplishments, and abilities in a chosen career field.

emulsion An unstable mixture of two or more immiscible substances united with the aid of a binder or emulsifier.

emulsifier Brings two normally incompatible materials together and binds them into a uniform and fairly stable blend; the materials eventually separate, but usually very slowly over time.

endocrine (EN-duh-krin) (ductless) glands Organs (such as the thyroid or pituitary glands) that release hormonal secretions directly into the bloodstream.

endocrine system A group of specialized glands that affect the growth, development, sexual activities, and health of the entire body.

epidermis (ep-uh-DUR-mis) The outermost layer of the skin.

epithelial tissue (ep-ih-THEE-lee-ul TISH-oo) A protective covering on body surfaces, such as the skin, mucous membranes, the tissue inside the mouth, the lining of the heart, digestive and respiratory organs, and glands.

eponychium (ep-oh-NIK-eum) Living skin at the base of the nail plate and covering the matrix area.

ergonomics The science of designing the workplace as well as its equipment and tools to make specific body movements more comfortable, efficient, and safe.

essential oils Oils extracted from seeds, bark, roots, leaves, wood, and/or resin using various forms of distillation.

esthetician A specialist in the cleansing, preservation of health, and beautification of the skin and body; one who gives therapeutic facial treatments.

ethics The moral principles by which we live and work.

evaporate A change from liquid to vapor form.

excoriation (ek-skor-ee-AY-shun) A skin sore or abrasion produced by scratching or scraping.

excretory system (EK-skre-tor-ee SIS-tum) A group of organs including the kidneys, liver, skin, large intestine, and lungs that purify the body by the elimination of waste matter.

exfoliating scrubs Water-based lotions that contain a mild, gritty-like abrasive and moisturizers to help in removing dry, flaky skin and reducing calluses.

exhalation (eks-huh-LAY-shun) The act of breathing outward, expelling carbon dioxide from the lungs.

exocrine glands (EK-suh-krin GLANDZ) Also known as *duct glands*; organs that produce a substance that travels through small tube-like ducts, such as the sudoriferous (sweat) glands and the sebaceous (oil) glands.

exothermic (ek-soh-THUR-mik) reactions Chemical reactions that produce heat.

exposure incident Contact with nonintact (broken) skin, blood, body fluid, or other potentially infectious materials that results from an employee performing his or her professional duties.

extensor (ik-STEN-sur) A muscle that straightens the wrist, hand, and fingers to form a straight line.

extensor digitorum longus (eck-STEN-sur dij-it-TOHR-um LONG-us) A muscle that bends the foot up and extends the toes.

eyes Body organs that control the body's vision.

fabric wrap A nail wrap made of silk, linen, or fiberglass.

fan brush A flat brush where the bristles or hairs are spread out like a fan. This brush is most commonly used for blending and special effects.

fantasy art A nail art category or competition where all art mediums are allowed and the only limitation is the imagination.

femur (FEE-mur) A heavy, long bone that forms the leg above the knee.

ferrule The metal band around the brush that helps to hold the bristles in place.

fiberglass A very thin synthetic mesh with a loose weave.

fibula (FIB-ya-lah) The smaller of the two bones that form the leg below the knee. The fibula may be visualized as a bump on the little-toe side of the ankle.

fine-grit abrasive Abrasive that is 240 grit and higher designed for buffing, polishing, and removing very fine scratches.

fissure (FISH-ur) A crack in the skin that penetrates the dermis, such as chapped hands or lips.

flagella (flu-JEL-uh) (singular: flagellum) Slender, hair-like extensions used by bacilli and spirilla for locomotion.

flash cure Placing a wet UV gel product under the UV light for 5 to 10 seconds.

flat art A nail art category that includes all freehand painting techniques that are flat, not raised.

flat brush A brush with a square tip with long bristles, which gives the brush added flexibility. This brush is useful for blending and shading.

flexor (FLEK-sur) An extensor muscle of the wrist involved in flexing the wrist.

flexor digiti minimi (FLEK-sur-dij-it-ty MIN-eh-mee) A muscle of the foot that moves the little toe.

flexor digitorum brevis (FLEKS-or dij-it-TOHR-um BREV-us) A muscle of the foot that moves the lesser toes and helps maintain balance while walking and standing.

flute A long, slender cut or groove found on carbide bits.

foot file Also known as *pedicure paddle*; a large abrasive file used to smooth and reduce thicker areas of calluses.

foot soaks Products containing gentle soaps and moisturizers that are used in a pedicure bath to cleanse and soften the skin.

free edge The part of the nail plate that extends over the tip of the finger or toe.

French manicure A nail art technique where the nail bed is one color, usually pink, peach, or beige (depending upon the client's skin tone), and the free edge of the nail is another color, usually white.

French twist A competition where you may use pink, white, clear, and glittered products to produce a unique twist on the French manicure look.

frequency The number of waves within a given length. Long wavelengths have low frequency, meaning that the number of waves is less frequent (fewer waves) within a given length. Short wavelengths have higher frequency because the number of waves is more frequent (more waves) within a given length.

friction In massage, various strokes that manipulate or press one layer of tissue over another.

fulcrum finger Also known as *balance point*; balancing the tip of one pinky finger with the tip of the pinky finger on the other hand as you work.

fungi (FUN-jī) (**singular: fungus**) single-cell organisms that grow in irregular masses that include molds, mildews, and yeasts, can produce contagious diseases, such as ringworm.

fungicidal (fun-jih-SYD-ul) Capable of destroying fungi.

fuse Special device that prevents excessive current from passing through a circuit.

game plan The conscious act of planning your life, instead of just letting things happen.

gas A state of matter different from liquid or solid. Gases are not formed by evaporation of liquids, as are vapors. Gases must not be confused with vapors or fumes.

gastrocnemius (gas-truc-NEEM-e-us) The muscle that is attached to the lower rear surface of the heel and pulls the foot down.

gel polishes An alternative to traditional nail lacquers. Gel polishes do not dry as nail lacquers do; they cure in the lamp unit.

germs See *bacteria*.

gland A specialized organ that removes certain constituents from the blood to convert them into new substances.

glycerin (GLIS-ur-in) A sweet, colorless, oily substance used as a moisturizing ingredient in cosmetic products.

goals A set of benchmarks that, once achieved, help you to realize your mission and your vision.

goal setting The identification of long-term and short-term goals that helps you decide what you want out of life.

gravity-fed An airbrush system designed to pull the paint into the airbrush using gravity.

grit Number of abrasive particles per square inch.

ground fault circuit interrupter (GFCI) A resettable safety device that is designed to provide protection from an unsafe ground.

grounding To complete an electrical circuit and carry the current safely away.

hangnail A condition in which the eponychium or other living tissue surrounding the nail plate becomes split or torn.

hard UV gels Hard UV gels that are typically defined as the traditional UV gels; they cannot be removed with acetone.

heating element Converts electricity into heat by providing resistance to an electric current.

heart A muscular, cone-shaped organ that keeps the blood moving within the circulatory system.

heel The point at which the bristles of the brush meet the ferrule.

hematoma (HEE-mah-toh-mah) A collection of blood that is trapped underneath the nail. This blood usually results in pain and pressure on the nail bed. This excess blood may need to be drained by a physician.

hemoglobin (HEE-muh-gloh-bun) The coloring matter of the blood; an iron-containing protein that temporarily binds with oxygen.

hepatitis (hep-uh-TY-tus) A bloodborne virus that causes disease affecting the liver.

histamine Chemicals released in the blood that enlarge the vessels around an injury so that blood can speed removal of any allergy-causing substance.

histology (his-TAHL-uh-jee) Also known as *microscopic anatomy*; the study of tiny structures found in tissues.

HIV See *human immunodeficiency virus*.

hormone (HOR-mohn) A secretion, such as insulin, adrenalin, and estrogen, produced by one of the endocrine glands and carried by the bloodstream or body fluid to another part of the body to stimulate a specific activity.

hospital disinfectants Effective for cleaning blood and body fluids in hospitals and on nonporous surfaces in the salon, thus controlling the spread of disease.

human immunodeficiency virus (HYOO-mun ih-MYOO-noh-di-FISH-en-see VY-rus) (HIV) The virus that can cause AIDS.

humerus (HYOO-muh-rus) The uppermost and largest bone in the arm, extending from the elbow to the shoulder.

hydrophilic (hy-drah-FIL-ik) Water-loving.

hyperhidrosis (hy-per-hy-DROH-sis) Excessive sweating, caused by heat or general body weakness.

hypertrophy Abnormal growth of the skin.

hyponychium Slightly thickened layer of skin that lies between the fingertip and free edge of the nail plate. It forms a protective barrier that prevents microorganisms from invading and infecting the nail bed.

immiscible Not capable of being mixed.

immunity The ability of the body to destroy and resist infection. Immunity against disease can be either natural or acquired and is a sign of good health.

implements Tools used to perform nail services that are multiple use (reuseable) or disposable.

indirect transmission The transmission of blood or body fluids through contact with an intermediate contaminated object, such as a tweezer, metal pusher, nipper, or an environmental surface.

infection (in-FEK-shun) The invasion of body tissues by disease-causing pathogens.

infection control The methods used to eliminate or reduce the transmission of infectious organisms.

infectious (in-FEK-shun) An infection that can be spread from one person to another or from one infected body part to another.

infectious disease A disease caused by pathogenic (harmful) microorganisms that enter the body. An infectious disease may or may not spread from one person to another person.

inflammation (in-fluh-MAY-shun) A condition in which a part of the body reacts to injury, irritation, or infection. An inflammation is characterized by redness, heat, pain, and swelling.

infrared radiation (IR) The wavelength of infrared radiation (IR) is just below red and below the visible spectrum of light.

inhalation (in-huh-LAY-shun) The breathing in of air.

inhibition layer The tacky surface left on the nail once a UV gel has cured.

initiator A substance that starts the chain reaction that leads to the creation of very long polymer chains.

inlaid designs Designs inside a nail enhancement that are created when nail art is sandwiched between two layers of product while the nail enhancement is being formed.

inorganic chemistry The study of substances that do not contain carbon but may contain hydrogen.

insertion Part of the muscle at the more movable attachment to the skeleton.

insulator (IN-suh-layt-ur) Also known as *nonconductor*; a material that does not transmit electricity easily.

insurance Guarantees protection against financial loss from malpractice, property liability, fire, burglary and theft, and business interruption.

integumentary system (in-TEG-yuh-ment-uh-ree SIS-tum) The skin and its accessory organs, such as the oil and sweat glands, sensory receptors, hair, and nails.

interstitial fluid (in-tur-STISH-al FLOO-id) Blood plasma found in the spaces between tissues.

intestines A body organ that, along with the stomach, digests food.

inverter An apparatus that changes direct current to alternating current.

ion An atom or molecule that carries an electrical charge.

ionization (eye-ahn-iy-ZAY-shun) The separation of an atom or molecule into positive and negative ions.

irritant contact dermatitis A skin infection caused when the skin becomes irritated by a substance.

job description A document that outlines the duties and responsibilities of a particular position.

joint A connection between two or more bones of the skeleton.

keloid (KEE-loyd) A thick scar resulting from excessive growth of fibrous tissue.

keratin A fiber protein found in nails, skin and hair. The keratin in natural nails is harder than the keratin in hair or skin.

keratoma (kair-uh-TOH-muh) Also known as *callus*; an acquired, superficial, thickened patch of epidermis caused by pressure or friction on the hands and feet.

kidneys Body organs that excrete water and waste products.

kilowatt (KIL-uh-wat) 1,000 watts.

lateral nail fold Folds of normal skin that line the sides of the nail plate.

latissimus dorsi (lah-TIS-ih-mus DOR-see) The large, flat, triangular muscle covering the lower back.

light emitting diode (LED) A type of ultraviolet-energy (UV) releasing lamp used to polymerize UV curable gel nail enhancements.

lentigenes (len-TIJ-e-neez) The technical term for freckles.

lesion (LEE-zhun) A mark on the skin; certain lesions could indicate an injury or damage that changes the structure of tissues or organs. There are three types of skin lesions: primary, secondary, and tertiary.

leukocytes (LOO-koh-syts) See *white blood cells*.

leukoderma (loo-koh-DUR-muh) A skin disorder characterized by light abnormal patches; caused by a burn or congenital disease that destroys the pigment-producing cells.

leukonychia (loo-koh-NIK-ee-ah) spot Whitish discoloration found inside the nail plate, usually caused by injury to the nail matrix.

ligament (LIG-uh-munt) A tough band of fibrous tissue that connects bones or holds an organ in place.

linen A closely woven, heavy material used for nail wraps.

liner brush A detail brush preferred for line work, outlining, and lettering.

lipophilic (ly-puh-FIL-ik) Oil-loving.

liver An organ that removes waste created by digestion.

local infection An infection such as a pimple or abscess, that is confined to a particular part of the body and is indicated by a lesion containing pus.

lower-grit abrasives Boards and buffers less than 180 grit that quickly reduce the thickness of any surface.

lungs Organs of respiration; spongy tissues composed of microscopic cells in which inhaled air is exchanged for carbon dioxide during one breathing cycle.

lunula (LOO-nuh-luh) Whitish, half-moon shape underneath the base of the nail plate, caused by the reflection of light off the surface of the matrix.

lymph Clear fluid that circulates in the lymph spaces (lymphatics) of the body; carries waste and impurities away from the cells.

lymphatic/immune system Body system made up of lymph, lymph nodes, the thymus gland, the spleen, and lymph vessels. Protects the body from disease by developing immunities and destroying disease-causing microorganisms, as well as draining the tissue spaces of excess interstitial fluids to the blood. It carries waste and impurities away from the cells.

lymph capillaries Blind end tubes that are the origin of lymphatic vessels.

lymph nodes (LIMF NOHDS) Special structures found inside the lymphatic vessels that filter lymph.

lymph vascular system (LIMF VAS-kyoo-lur SIS-tum) Acts as an aid to the blood system and consists of the lymph spaces, lymphatics (lymph vessels), lymph nodes and other structures.

macule (MAK-yool) (plural: maculae) A spot or discoloration on the skin, such as a freckle. Macules are neither raised or sunken.

maintenance The term used for a nail enhancement that needs to be serviced after 2 or more 3 weeks from the initial application of the nail enhancement product. The maintenance service allows the professional to apply the enhancement product onto the new growth of nail, commonly referred to as a *fill* or a *backfill*, and to structurally correct the nail to ensure its strength, shape, and durability; this is commonly referred to as a *rebalance*.

malignant melanoma (muh-LIG-nent mel-uh-NOH-muh) Most serious form of skin cancer, often characterized by black or dark brown patches on the skin that may appear uneven in texture, jagged, or raised.

manicure A cosmetic treatment of the hands involving cutting, shaping, and often painting of the nails, removal of the cuticles, and softening of the skin.

marbleizer Also known as *stylus*; a tool with wooden handles and a rounded ball tip that can range in size and is excellent for dotting small circles of color on a nail.

marbleizing A swirled effect when you combine two or more colors together when wet and mix them on the nail with a marbleizing tool known as a *stylus*.

mask Also known as a *masque*; a concentrated treatment product often composed of mineral clays, moisturizing agents, skin softeners, aromatherapy oils, botanical extracts and other beneficial ingredients to cleanse, exfoliate, tighten, tone, hydrate, and nourish the skin.

massage The manipulation of the soft tissues of the body.

Material Safety Data Sheet Abbreviated as *MSDS*; contains safety information about products compiled by a manufacturer, including the names of hazardous ingredients, safe handling and use procedures, precautions to reduce the risk of accidental harm or overexposure, and flammability warnings.

matrix An area where the nail plate cells are formed; this area is composed of matrix cells that make up the nail plate.

matter Any substance that occupies space and has mass (weight).

median (MEE-dee-un) nerve The nerve, with its branches, that supplies the arm and hand.

medium-grit abrasives 180- to 240-grit abrasives that are used to smooth and refine surfaces and shorten natural nails.

melanin Tiny grains of pigment (coloring matter) deposited into cells in the layer of the epidermis and papillary layers of the dermis. There are two types of melanin: phaeomelanin, which is red to yellow in color; and eumelanin, which is dark brown to black.

melanocytes (muh-LAN-uh-syts) Melanin-forming cells.

melanonychia (mel-uh-nuh-NIK-ee-uh) Significant darkening of the fingernails or toenails; may be seen as a black band under or within the nail plate, extending from the base to the free edge.

metabolism (muh-TAB-uh-liz-um) A chemical process that takes place in living organisms through which the cells are nourished and carry out their activities.

metacarpus (met-uh-KAR-pus) Bones of the palm of the hand; parts of the hand containing five bones between the carpus and phalanges.

metal pusher A stainless steel reusable implement used to push back the eponychium; that can also be used to gently scrape cuticle tissue from the natural nail plate.

metatarsal (met-ah-TAHR-sul) One of three subdivisions of the foot comprising five bones—which are long and slender, like the metacarpal bones of the hand—that help make up the foot. The other two subdivisions are the tarsal and phalanges. All three subdivisions comprise 26 bones.

methacrylate (METH-ah-cry-latz) A type of acrylic monomer (cross-linking) that has very good adhesion to the natural nail plate and polymerizes in minutes; used to make all liquid/powder systems and at least one type of UV gel.

Methicillin-resistant *staphylococcus aureus* (MRSA) A staph infection occurring most frequently among persons with weakened immune systems or in people having undergone medical procedures; highly resistant to certain antibiotics.

methyl methacrylate monomer (MMA) A substance in wide use around the world for many applications, such as bone repair cement for implantation into the body.

germs Nonscientific synonyms for disease-producing organisms.

microorganism (my-kroh-OR-gah-niz-um) Any organism of microscopic or submicroscopic size.

microshattering Tiny cracks in nail enhancements as they age with wear and become brittle; can also be caused by aggressive filing with or without an electric file.

microtrauma The act of causing tiny unseen openings in the skin that may allow entry by pathogenic microbes. A common cause of microtrauma is from shaving.

mildew (MIL-doo) A type of fungus that affects plants or grows on inanimate objects but that does not cause human infections in the salon.

miliaria rubra (mil-ee-AIR-ee-ah ROOB-rah) Prickly heat; an acute inflammatory disorder of the sweat glands, characterized by the eruption of small red vesicles and accompanied by burning, itching skin.

milliamper (mil-ee-AM-peer) (mA) One-thousandth of an ampere.

miscible (MIS-uh-bul) liquids Mutually soluble liquids, meaning that they can be mixed together to form stable solutions, which cannot be easily separated.

mitosis Cells dividing into two new cells (daughter cells); the usual process of cell reproduction of human tissue.

mitral valve (MY-trul VALV) Also referred to as the bicuspid valve (by-KUS-pid VALV); the valve that separates the two chambers on the left side of the heart. The valve permits blood to fall from the left atrium into the ventricle when the atrium contracts. When the atrium relaxes, the valve closes to prevent the blood from backing up into the atrium and from there, into the lungs.

mix ratio The amount of monomer liquid and polymer powder used to create a bead. The mix ratio can be best described as *dry*, *medium*, or *wet*.

mixed media A description used for nail art when more than one nail art medium is used to create the design.

mole A small, brownish spot or blemish on the skin ranging in color from pale tan to brown or bluish black.

molecule Two or more atoms joined chemically.

monomer (MON-oh-mehr) A molecule that can polymerize to form long polymer chains.

monomer liquid A chemical liquid mixed with polymer powder to form the sculptured nail enhancement.

monomer liquid and polymer powder nail enhancements Enhancements created by combining monomer liquid and polymer powder.

motility (moh-TIL-ee-tee) Self-movement.

motor nerve fibers Fibers of the motor nerves that are distributed to the arrector pili muscles attached to hair follicles. Motor nerves carry impulses from the brain to the muscles.

motor nerves Also known as *efferent nerves*; nerves that carry impulses from the brain to the muscles.

MRSA See *methicillin-resistant staphylococcus aureus*

MSDS See *Material Safety Data Sheet*.

multiuse implements Reusable items that can be cleaned, disinfected, and used on more than one person, even if the item is accidentally exposed to blood or body fluid.

muscular system A body system that covers, shapes, and supports the skeleton tissue; contracts and moves various parts of the body.

muscular tissue Tissue that contracts and moves various parts of the body.

Mycobacterium fortuitum (MY-koh-bak-TIR-ee-um for-TOO-i-tum) A microscopic germ that normally exists in tap water in small numbers.

myology (my-AHL-uh-jee) The study of the nature, structure, function, and diseases of the muscles.

nail art competitions Opportunities for licensed professionals or nail students to compete in a specified category where the art and theme of the nails are part of the judging criteria.

nail bed Portion of the living skin that supports the nail plate as it grows toward the free edge.

nail clippers A reusable implement used to shorten the nail plate quickly and efficiently.

nail creams Barrier products that contain ingredients designed to seal the surface and hold in the subdermal moisture in the skin.

nail dehydrator A substance used to remove surface moisture and tiny amounts of oil left on the natural nail plate.

nail disorder A condition caused by an injury or disease of the nail unit.

nail extension underside The actual underside of the nail extension; is usually smooth.

nail folds The folds of normal skin that surround the nail plate.

nail forms Placed under the free edge of the natural nail and used as a guide to extend the nail enhancements beyond the fingertip for additional length.

nail groove A slit or furrow on the sides of the nail.

nail oils Oils designed to absorb into the nail plate to increase flexibility and into the surrounding skin to soften.

nail plate A hardened keratin plate that sits on and slowly slides across the nail bed while it grows; the most visible and functional part of the nail unit.

nail primer A substance that improves adhesion; used on the natural nail prior to product application to assist in adhesion.

nail psoriasis A noninfectious condition that affects the surface of the natural nail plate, causing it to appear rough and pitted as well as causing reddish color spots on the nail bed and onycholysis.

nail pterygium (teh-RU-ee-um) An abnormal condition that occurs when the skin is stretched by the nail plate; usually caused by serious injury or allergic reaction.

nail rasp A metal file with an edge that can file the nail plate in only one direction.

nail technology The art and science of beautifying and improving the nails and skin of the hands and feet.

nail tips Preformed nail extensions made from ABS or tenite acetate plastic; available in a wide variety of shapes, styles, and colors, such as natural, white, and clear.

nail tip adhesive The bonding agent used to secure the nail tip to the natural nail.

nail unit All the anatomical parts of the fingernail necessary to produce the natural nail plate.

nail wrap A method of securing a layer of fabric or paper on and around the nail tip to ensure its strength and durability.

nail wrap resin Resins are used to coat and secure fabric wraps; made from cyanoacrylate and closely related to those used to create other types of nail enhancements.

natural immunity Immunity that is partly inherited and partly developed through healthy living.

natural nail The hard protective plate located at the end of the finger or toe.

needs assessment See *client consultation*.

nerve A whitish cord made up of bundles of nerve fibers held together by connective tissue through which impulses are transmitted.

nerve tissue Tissue that carries messages to and from the brain and controls and coordinates all body functions.

nervous system The body system composed of the brain, spinal cord, and nerves; controls and coordinates all other systems inside and outside of the body and makes them work harmoniously and efficiently.

networking Connecting with people, communities, and local businesses to build mutually beneficial relationships.

neurology (nuh-RAHL-uh-jee) The science of the structure, function, and pathology of the nervous system.

neuron (NOO-rahn) A nerve cell; the primary structural unit of the nervous system, consisting of the cell body, nucleus, dendrites, and axon.

nevus (NEE-vus) A small or large malformation of the skin due to abnormal pigmentation or dilated capillaries; commonly known as a birthmark.

nipper A stainless steel implement used to carefully trim away dead skin around the nails.

nonpathogenic (non-path-uh-JEN-ik) Harmless organisms that may perform useful functions and are safe to come in contact with since they do not cause disease or harm.

nonstriated muscle See *smooth muscle*.

nucleus (NOO-klee-us) The dense, active protoplasm found in the center of the cell; plays an important part in cell reproduction and metabolism.

occupational disease Illness resulting from conditions associated with employment, such as prolonged and repeated overexposure to certain products or ingredients.

odorless monomer liquid and polymer powder products Nail enhancement products that have a very low odor.

ohm (OHM) A unit that measures the resistance of an electric current.

oil-in-water (O/W) emulsion Oil droplets emulsified in water.

oligomer Short chain of monomers that is not long enough to be considered a polymer.

-ology Suffix meaning study of (e.g., technology).

one-color method When only one color of nail enhancement product is applied over the entire surface of the nail.

onychia Inflammation of the matrix of the nail with shedding of the nail.

onychocryptosis (ahn-ih-koh-krip-TOH-sis) Ingrown nail; nail grows into the living tissue around the nail.

onycholysis A medical condition caused by physical separation of the nail plate from the nail bed.

onychomadesis (ahn-il-koh-muh-DEE-sis) The separation and falling off of a nail from the nail bed; can occur on fingernails and toenails.

onychomycosis (ahn-ihkoh-my-KOH-sis) A fungal infection of the natural nail plate.

onychophagy (ahn-ih-koh-FAY-jee) Bitten nails.

onychorrhesis (ahn-ih-koh-REK-sis) Split or brittle nails that also have a series of lengthwise ridges that give a rough appearance to the surface of the nail plate.

onychosis (ahn-ih-KOH-sis) Any deformity or disease of the natural nails.

onyx (AHN-iks) The technical term for nail of the fingers or toes.

opacities The amount of pigment concentration in a gel making it difficult to see through.

organs In plants and animals, structures composed of specialized tissues that allow them to perform specific functions.

organic chemistry The study of substances that contain carbon.

origin The part of the muscle that does not move; attached to the skeleton and usually part of a skeletal muscle.

os Bone.

osteology (ahs-tee-AHL-oh-jee) The study of anatomy, structure, and function of the bones.

oval nail A conservative nail shape that is thought to be attractive on most women's hands. It is similar to a squoval nail with even more rounded corners.

ovaries The female glands that function in sexual reproduction as well as determining female sexual characteristics.

overexposure Prolonged, repeated, or long-term exposure that can cause sensitivity.

overfiling Excessively roughing up the nail plate.

overlay A layer of any kind of nail enhancement product that is applied over the natural nail or nail and tip application for added strength.

pancreas (PANG-kree-us) Organ that secretes enzyme-producing cells responsible for digesting carbohydrates, proteins, and fats.

paper wrap Temporary nail wrap made of very thin paper. Not nearly as strong as a fabric wrap.

papillary (PAP-uh-lair-ee) layer The outer layer of the dermis, directly beneath the epidermis.

papule (PAP-yool) A pimple; a small circumscribed elevation on the skin that contains no fluid but may develop pus.

paraffin A petroleum by-product that has excellent sealing properties (barrier qualities) to hold moisture in the skin.

parasites Organisms that grow, feed, and shelter on or in other organisms (referred to as the hosts), while contributing nothing to the survival of those organisms. Parasites must have a host to survive.

parasitic disease A disease caused by parasites, such as lice and mites.

parathyroid glands (payr-uh-THY-royd GLANDZ) Glands that regulate blood calcium and phosphorus levels so that the nervous and muscular systems can function properly.

paronychia (payr-uh-NIK-ee-uh) A bacterial inflammation of the tissues surrounding the nail; pus, redness, and swelling are usually present.

partnership A business structure in which two or more people share ownership, although not necessarily equally; management and responsibilities of the business and its operations may be given to one or more people.

patella (pah-TEL-lah) Also known as the *accessory bone*; forms the knee cap joint.

pathogenic (path-uh-JEN-ik) Causing disease; may cause harmful conditions or infections in humans.

pathogenic disease A disease produced by organisms, including bacteria, virus, fungi, and parasites.

pectoralis major (pek-tor-AL-is MAY-jor) and pectoralis minor Muscles of the chest that assist the swinging movements of the arm.

pedicure A cosmetic service performed on the feet by a licensed nail technician or cosmetologist and that includes trimming, shaping, exfoliating skin, and polishing toenails as well as foot massage.

pedicure paddle Also known as a *foot file*; a large abrasive file used to smooth and reduce thicker areas of calluses.

perfectionism An unhealthy compulsion to do things perfectly.

pericardium (payr-ih-KAR-deeum) A double-layered membranous sac enclosing the heart.

peripheral (puh-RIF-uh-rul) nervous system The system of nerves that connects the peripheral (outer) parts of the body to the central nervous system; it has both sensory and motor nerves.

peroneus brevis (per-oh-NEE-us BREV-us) A muscle that originates on the lower surface of the fibula. It bends the foot down and out.

peroneus longus (per-oh-NEE-us LONG-us) A muscle that covers the outer side of the calf and inverts the foot and turns it outward.

personal hygiene The daily maintenance of cleanliness by practicing healthful habits.

personnel Employees; staff.

pH See *potential hydrogen*.

pH scale Measures the acidity and alkalinity of a substance; ranges from 0 to 14.

phalanges (fuh-LAN-jeez) (singular: phalanx) Also known as *digits*; bones of the fingers or toes.

phenolic (fi-NOH-lik) disinfectant A form of formaldehyde, a tuberculocidal disinfectant.

photoinitiator A chemical that in combination with resins and the proper curing lamp causes UV gels to cure.

physical change A change in the form or physical properties of a substance without the formation of a new substance.

physical mixture A physical combination of matter in any proportions.

physical presentation Posture; the way an individual walks and moves.

physical properties Those characteristics that can be determined without a chemical reaction and that do not cause a chemical change in the substance.

physiology (fiz-ih-OL-oh-jee) The study of the functions and activities performed by the body's structures.

Pigmented gels Building gels, used early in the service, or self-leveling gels, used near the final contouring procedure.

pincer nails Increased crosswise curvature throughout the nail plate caused by an increased curvature of the matrix.

pineal gland (PY-nee-ul GLAND) A gland of the endocrine system; plays a major role in sexual development, sleep, and metabolism.

pituitary gland (puh-TOO-uh-tair-ee GLAND) A gland of the endocrine system; affects almost every physiologic process of the body: growth, blood pressure, contractions during childbirth, breast milk production, sex organ functions in both women and men, thyroid gland function, the conversion of food into energy (metabolism).

plasma (PLAZ-muh) (blood) The fluid part of the blood that carries food and other useful substances to the cells.

plasma (chemistry) A special form of matter that behaves like a gas, but unlike gases, plasmas conduct electricity.

plasticizers Ingredients used to keep nail enhancement products flexible.

platelet (PLAYT-let) A blood cell that aids in the forming of clots.

plicated (plik-a-CHOORD) nail Also known as *folded nail*; a type of highly curved nail plate often caused by injury to the matrix, but that may be inherited.

pointed nail A tapered and longer-than-usual nail to emphasize and enhance the slender appearance of the hand. Pointed nails are usually worn as a style statement by fashion-conscious people who do not need the strongest, most durable nails.

polymer (POL-i-mehr) A substance formed by combining many small molecules (monomers) or oligomers, usually in extremely long, chainlike structures.

polymer powder A powder in white, clear, pink, or many other colors that is combined with monomer liquid to form the nail enhancement.

polymerization (POL-i-mehr-eh-za-shun) Also known as curing or hardening; a chemical reaction that creates polymers.

popliteal (pop-lih-TEE-ul) artery Divides into two separate arteries known as the anterior tibial and the posterior tibial. The anterior tibial artery goes to the foot and becomes the dorsalis pedis, which supplies the foot with blood. The posterior tibial artery supplies blood to the ankles and the back of the lower leg.

porous Means that an item is made or constructed of a material that has pores or openings. Some porous items, such as towels and linens, can be safely cleaned, disinfected, and used on more than one client.

position The way that a brush is held to create nail art; the brush can be positioned straight up-and-down or laid flat and pulled across the nail surface.

position stop The point where the free edge of the natural nail meets the tip.

posterior tibial artery See *popliteal artery*.

potential hydrogen (pH) A measure of the acidity or alkalinity of a substance.

pressure The amount of force that an artist applies to a brush while in the stroke motion when applying nail art.

primary colors Pure pigment colors that cannot be obtained from mixing together other colors.

prioritize To make a list of tasks that needs to be done in order of most-to-least important.

procrastination Putting off until tomorrow what you can do today.

professional image The impression you project through both your outward appearance and your conduct in the workplace.

pronator (proh-NAY-tohr) The muscle that turns the hand inward so that the palm faces downward.

protein hardener A combination of clear polish and protein, such as collagen.

protoplasm (PROH-toh-plaz-um) A colorless jelly-like substance found inside cells, in which food elements such as protein, fats, carbohydrates, mineral salts, and water are present.

pseudomonas aeruginosa One of several common bacteria that can cause nail infection.

psoriasis (suh-RY-uh-sis) A skin disease characterized by red patches covered with silver-white scales, usually found on the scalp, elbows, knees, chest, and lower back, and rarely on the face.

pull The technique of pulling a liner or other brush across the surface of the nail to create a fluid line.

pulmonary circulation (PUL-muh-nayr-ee sur-kyoo-LAY-shun) Blood circulation moves from the heart to the lungs to be purified, then returns to the heart again.

pure substance A chemical combination of a single type of matter.

pus A fluid created by tissue inflammation; a sign of a bacterial infection.

pustule (PUS-chool) An inflamed pimple containing pus.

pyogenic granuloma (py-roh-JEN-ik gran-yoo-LOH-muh) Severe inflammation of the nail in which a lump of red tissue grows up from the nail bed to the nail plate.

quaternary ammonium (KWAT-ur-nayr-ree uh-MOH-neeum) compounds Also known as *quats*, these disinfectants are very effective when used properly in the salon.

radial artery The artery that supplies blood to the thumb side of the arm and the back of the hand; supplies the muscles of the skin, hands, fingers, wrists, elbows, and forearms.

radial (RAY-dee-ul) nerve With its branches, supplies the thumb side of the arm and back of the hand.

radius (RAY-dee-us) The smaller bone in the forearm (lower arm) on the same side as the thumb.

rebalance A term often used to refer to the maintenance of a nail enhancement.

record keeping Maintaining accurate and complete records of all financial activities in your business.

rectifier (REK-ti-fy-ur) An apparatus that changes alternating current to direct current.

red blood cells Blood cells that carry oxygen from the lungs to the body cells and transport carbon dioxide from the cells back to the lungs.

reflective listening Listening to the client and then repeating, in your own words, what you think the client is telling you.

reflex (REE-fleks) An automatic reaction to a stimulus that involves the movement of an impulse from a sensory receptor along the sensory nerve to the spinal cord. A responsive impulse is sent along a motor neuron to a muscle, causing a reaction (e.g., the quick removal of the hand from a hot object). Reflexes do not have to be learned; they are automatic.

reflexology A unique method of applying pressure with thumb and fingers to the hands and feet; has demonstrated health benefits.

repair patch A piece of fabric cut to completely cover a crack or break in the nail.

reproductive system (ree-proh-DUK-tiv SIS-tum) The body system responsible for processes by which plants and animals produce offspring.

respiration The act of breathing; the exchange of carbon dioxide and oxygen in the lungs and within each cell.

respiratory system (RES-puh-ra-tor-ee SIS-tum) The body system consisting of the lungs and air passages; enables breathing, supplying the body with oxygen, and eliminating carbon dioxide as a waste product.

résumé A written summary of a person's education and work experience.

retail supplies Supplies sold to clients.

retailing The act of recommending and selling quality products to clients for at-home nail care.

reticular (ruh-TIK-yuh-lur) layer A deeper layer of the dermis that supplies the skin with oxygen and nutrients; contains fat cells, blood vessels, sweat glands, hair follicles, lymph vessels, arrector pili muscles, oil glands, nerve endings, and hair follicles.

reusable See *multiuse*.

reusable implements Implements that are generally stainless steel; they must be properly cleaned and disinfected prior to use on another client.

revolutions per minute (RPM) The number of times a bit turns in a complete circle in one minute.

ridges Vertical lines running the length of the natural nail plate, usually related to normal aging.

rings of fire Grooves carved into the nail caused by filing with bits at the incorrect angle.

round brush The most common and versatile style of brush, with a very good capacity for holding paint.

round nail A slightly tapered nail, usually extending just a bit past the fingertip.

rules and guidelines Information provided for each competition so that one understands what the competition does and does not allow.

Safety Data Sheet (SDS) (formerly known as Material Safety Data Sheet, MSDS) Information compiled by the manufacturer about product safety, including the names of hazardous ingredients, safe handling and use procedures, precautions to reduce the risk of accidental harm or overexposure, and flammability warnings.

salon operation The ongoing, recurring processes or activities involved in the running of a business for the purpose of producing income and value.

salon policies The rules or regulations adopted by a salon to ensure that all clients and associates are being treated fairly and consistently.

saphenous nerve (sa-FEEN-us NURV) Supplies impulses to the skin of the inner side of the leg and foot.

sanitizing A chemical process for reducing the number of disease-causing germs on cleaned surfaces to a safe level.

scabies (SKAY-beez) A contagious skin disease that is caused by the itch mite, which burrows under the skin.

scale Any thin plate of epidermal flakes, dry or oily, such as abnormal or excessive dandruff.

scar Also known as *cicatrix*; a light-colored, slightly raised mark on the skin formed after an injury or lesion of the skin has healed.

scope of practice The list of services that you are legally allowed to perform in your specialty in your state.

sebaceous (sih-BAY-shus) gland An oil gland of the skin connected to hair follicles. Sebum is the fatty or oily secretion of the sebaceous gland.

secondary colors Colors resulting from mixing equal parts of two primary colors; the positions opposite to the primary colors on a color wheel.

secretory coil A tube-like duct that is part of the sudoriferous gland that ends at the surface of the skin to form the sweat pore.

secretory nerve fibers Fibers that are distributed to the sweat and oil glands. Secretory nerves, which are part of the autonomic nervous system, regulate the excretion of perspiration from the sweat glands and control the flow of sebum to the surface of the skin.

sensitization A greatly increased or exaggerated allergic sensitivity to products.

sensory nerve Also known as an *afferent nerve* (AAF-eer-ent NURV); a nerve that carries impulses or messages from the sense organs to the brain, where sensations of touch, cold, heat, sight, hearing, taste, smell, pain, and pressure are experienced.

sensory nerve fibers Sensory receptors that send messages to the brain. These react to heat, cold, touch, pressure, and pain.

serratus anterior (ser-RAT-us an-TEER-ee-or) A muscle of the chest that assists in breathing and in raising the arm.

service sets Sets of all the tools that will be used in a service.

shiner A buffer used to create a high shine on a natural nail or a nail enhancement when no polish will be worn.

sidewall The fold of skin overlapping the side of the nail; also called the *lateral nail fold*.

silicone A special type of ingredient used in nail polish dryers and skin protectants.

silk A strong, glossy, tightly woven natural fiber used for nail wrapping that becomes transparent when wrap resin is applied.

simple polymer chain The result of a long chain of monomers that are attached from head to tail.

single-use implements Disposable; an item that cannot be used more than once, either because it cannot be properly cleaned and all visible residue removed or because cleaning and disinfecting damages or contaminates it.

sink Also known as *sinking*; the settling and flattening out of a UV gel or other product while working.

skeletal system Physical foundation of the body, comprising 206 bones that vary in size and shape and that are connected by movable and immovable joints.

skin A major organ that is the external protective coating that covers the body.

skin tag A small brown or flesh-colored outgrowth of the skin.

smile line The curved line where the pink and the white meet on the nail.

smooth muscle Also known as *involuntary* or *nonstriated muscle*; a muscle that functions automatically, without conscious will.

soak-off gel polish A pigmented, light-cured soak-off gel that has a thin enough consistency to be packaged in a nail polish bottle.

sodium hypochlorite (SOH-dee-um hy-puh-KLOR-ite) A common household bleach; a disinfectant for salon use.

soft UV gels UV gels that are removed fairly easily with acetone.

sole proprietor The owner and manager of a business.

sole proprietorship A business owned and operated by one person, although the owner may have employees.

soleus (SO-lee-us) A muscle that originates at the upper portion of the fibula and bends the foot down.

solute The substance that is dissolved in a solution.

solution A stable uniform blend of two or more mixable substances.

solvent The substance that dissolves the solute in a solution.

spinal cord The portion of the central nervous system that originates in the brain, extends down to the lower extremity of the trunk, and is protected by the spinal column.

spirilla (spy-RIL-ah) Spiral or corkscrew-shaped bacteria.

splinter hemorrhage Caused by physical trauma or injury to the nail bed, which damages the capillaries and allows small amounts of blood flow.

spore The inactive reproductive stage of certain fungi and bacteria during which these microorganisms coat themselves with waxy outer shells so they can withstand long periods of famine, dryness, and unsuitable temperatures.

spotter brush Also known as a *detailer*; a short, round brush, having little belly and a very fine point at the tip. This brush offers maximum control for intricate detailed work.

squamous cell carcinoma SKWAY-mus SEL kar-sin-OH-muh A type of skin cancer that is more serious than basal cell carcinoma; often characterized by scaly red papules or nodules.

square nail A nail completely straight across the free edge with no rounding at the outside edges.

squoval nail A nail with a square free edge that is rounded off at the corner edges.

Standard Precautions Guidelines published by OSHA that require the employer and the employee to assume that all human blood and body fluids are infectious for bloodborne pathogens.

stain An abnormal brown or wine-colored skin discoloration with a circular and irregular shape.

staphylococci (staf-uh-loh-KOK-sy) Pus-forming bacteria that grow in clusters like bunches of grapes.

sterilization The process that completely destroys all microbial life, including spores.

stomach A major body organ that, along with the intestines, digests food.

stratum corneum (STRAT-um KOR-nee-um) The outer layer of the epidermis; also known as the *horny layer*.

stratum germinativum (jer-mih-nah-TIV-um) Also known as the *basal layer*; the deepest, live layer of the epidermis, which produces new epidermal skin cells and is responsible for growth.

stratum granulosum (gran-yoo-LOH-sum) The granular layer of the epidermis.

stratum lucidum (LOO-sih-dum) A clear, transparent layer of the epidermis under the stratum corneum.

stratum spinosum The spiny layer just above the basal cell layer.

streptococci (strep-toh-KOK-eye) Pus-forming bacteria arranged in curved lines resembling a string of beads.

stress A force or system of forces exerted on the body that result in strain and/or injury.

stress area The part of the nail enhancement where the natural nail grows beyond the finger and becomes the free edge. This area needs strength to support the nail extension.

stress strip A strip of fabric cut to 1/8" (3.18 mm) in length and applied to the weak point of the nail during Procedure 16-7, Four-Week Fabric Wrap Maintenance, to repair or strengthen a weak point in a nail enhancement.

striated (STRY-ayt-ed) muscle Also known as a *skeletal muscle*; this is muscle that is voluntarily or consciously controlled.

stripes brush An extremely long, flat brush having only a few fibers. It is incredibly efficient when creating long lines, striping effects, and animal prints.

stylus Tool with a solid handle and a rounded ball tip on each end that can range in size. An excellent tool for marbleizing or dotting small circles of color on a nail.

subcutaneous (sub-kyoo-TAY-neo-us) tissue Also known as *adipose* or *subcutis tissue*; fatty layer found below the dermis that gives smoothness and contour to the body; contains fats for use as energy; and also acts as a protective cushion for the outer skin.

subcutis (sub-KYOO-tis) tissue See **subcutaneous tissue**.

sudoriferous (sood-uh-RIF-uhrus) glands Sweat glands of the skin.

superficial peroneal nerve Also known as the *musculocutaneous nerve* (MUS-kyoo-lo-kyoo-TAY-nee-us NURV); extends down the leg, just under the skin, supplying impulses to the muscles and the skin of the leg as well as to the toes and skin on the top of the foot.

supinator (SOO-puh-nayt-ur) The muscle of the forearm that rotates the radius outward and the palm upward.

sural nerve (SUR-ul NURV) Supplies impulses to the skin on the outer side and back of the foot and leg.

surfactants (sur-FAK-tants) A substance that is often used as an emulsifier; it can act as a bridge to allow oils and water to mix and form an emulsion.

suspension An unstable mixture of undissolved particles in a liquid.

sweat glands See **sudoriferous glands**.

system Comprising a group of bodily organs acting together to perform one or more functions.

systemic circulation Also known as *general circulation*; the circulation of blood from the heart throughout the body and back again to the heart.

systemic disease A disease that affects the body as a whole, often due to under- or overfunctioning of internal glands or organs. The disease is carried through the blood stream or lymphatic system.

tactile corpuscles (TAK-tile KOR-puslus) Small epidermal structures with nerve endings that are sensitive to touch and pressure.

talus (TA-lus) Also known as the *ankle bone* of the foot; one of three bones that comprise the ankle joint. The other two bones are the tibia and fibula.

tan A change in pigmentation of skin caused by exposure to the sun or ultraviolet light.

tarsal (TAHR-sul) One of three subdivisions of the foot comprised of seven bones (talus, calcaneous, navicular, three cuneiform bones, and the cuboid). The other two subdivisions are the metatarsal and the phalanges. All three subdivisions comprise 26 bones.

telangiectasia (te-lanj-ec-tay-ja) The dilation of surface blood vessels.

tertiary colors Colors resulting from mixing equal parts of one primary color and one of its nearest secondary colors.

test-wise Understanding the strategies for successfully taking tests.

testes The male glands that function in sexual reproduction as well as determining male sexual characteristics.

thermal initiators Ingredients that use heat as an energy source for starting chemical reactions, such as polymerizing monomers into polymer.

thorax (THOR-aks) The chest; the elastic, bony cage that serves as a protective framework for the heart, lungs, and other internal organs.

thyroid gland (THY-royd GLAND) Controls how quickly the body burns energy (metabolism), makes proteins, and controls how sensitive the body should be to other hormones.

tibia (TIB-ee-ah) The larger of the two bones that form the leg below the knee. The tibia may be visualized as a bump on the big-toe side of the ankle.

tibial nerve (TIB-ee-al NURV) A division of the sciatic nerve that passes behind the knee. It subdivides and supplies impulses to the knee; the muscles of the calf; the skin of the leg; and the sole, heel, and underside of the toes.

tibialis anterior (tib-ee-AHL-is an-TEHR-ee-OHR) A muscle that covers the front of the shin. It bends the foot upward and inward.

ticket upgrading or upselling services The practice of recommending and selling additional services to clients that may be performed by you or other practitioners licensed in a different field.

tinea pedis The medical term for fungal infections of the feet.

tip Also known as *chisel edge*; the very end of the bristles, farthest away from the handle.

tip cutter An implement similar to a nail clipper, designed especially for use on nail tips.

tissue (TISH-oo) A collection of similar cells that perform a specialized function.

toe separators Foam rubber or cotton disposable implements used to keep toes apart while polishing the nails. A new set must be used on each client and then thrown away.

toenail clippers Professional instruments with curved or straight jaws used for cutting toenails.

toenail npper A metal device designed specifically for cutting the toenails; larger than a fingernail clipper, with thicker blades.

tolerance The tightness of the inside of the shank where the bit fits into the handpiece.

torque The power of a machine or its ability to keep turning when pressure is applied during filing.

toxins (TAHK-sins) Various poisonous substances naturally produced by some microorganisms (bacteria and viruses). All toxins are natural substances.

transferable skills Skills mastered at other jobs that can be put to use in a new position.

trapezius (trah-PEE-zee-us) The muscle that covers the back of the neck and the upper and middle region of the back; rotates and controls swinging movements of the arm.

tricep (TRY-sep) The large muscle that covers the entire back of the upper arm and extends the forearm.

tricuspid valve The heart valve that prevents backflow between the right atrium and right ventricle.

trumpet nail A disorder in which the edges of the nail plate curl around to form the shape of a trumpet or sharp cone at the free edge.

tubercle (TOO-bur-kul) An abnormal, rounded, solid lump above, within, or under the skin; larger than a papule.

tuberculocidal disinfectants (tuh-bur-kyoo-LOH-sy-dahl dis-in-FEK-tents) Proven to kill the bacteria that can cause tuberculosis.

tuberculosis A disease caused by a bacterium that is only transmitted through coughing or sneezing.

tumor (TOO-mur) A swelling; an abnormal cell mass resulting from excessive multiplication of cells, varying in size, shape, and color.

two-color method Two different colors of gel are applied to the surface of the nail, in different places, as in a French manicure.

ulcer (UL-sur) An open lesion on the skin or mucous membrane of the body accompanied by pus and loss of skin depth.

ulna (UL-nuh) The inner and larger bone of the forearm (lower arm), attached to the wrist and located on the side of the little finger.

ulnar artery The artery that supplies blood to the muscle of the little finger side of the arm and palm of the hand.

ulnar (UL-nur) nerve With its branches, the nerve that affects the little finger side of the arm and palm of the hand.

ultraviolet (ul-truh-VY-uh-let) (UV) energy Energy that is invisible to the human eye; found in sunlight and used to polymerize UV curing nail coatings.

ultraviolet (UV) light Invisible and with short wavelengths (therefore contains more energy), UV light is less penetrating than visible light, kills germs, and causes chemical reactions to happen more quickly.

ultraviolet (UV) radiation The wavelength of ultraviolet (UV) radiation is just above violet and above the visible spectrum of light.

unit wattage A measure of how much electricity a light bulb consumes.

urethane acrylate or urethane methacrylate The main ingredients in UV gel nail enhancements.

UVA light Light that emits rays of 100nm to 400nm. These light waves are specifically designed with photoinitiators that, on exposure to UV light, activate molecules and turn them into a hard plastic.

UV bonding gels Gels that increase adhesion to the natural nail plate.

UV building gels Thick-viscosity adhesive gels that are used to build an arch and curve to the fingernail.

UV gel A type of nail enhancement product that hardens when it is exposed to an ultraviolet (UV) light source.

UV gel polishes An alternative to traditional nail lacquers. UV gel polishes do not dry as a nail lacquer does; they cure in the UV light unit.

UV gloss gels Sealing gels, finishing gels, or shine gels. These gels are used to finish the nails and to create a glossy shine.

UV lamp Also known as the *UV light bulb*; a special bulb that emits UV light to cure UV gel nail enhancements.

UV light unit Also known as the *UV light*; a specialized electronic device that powers and controls UV lamps to cure UV gel nail enhancements.

UV self-leveling gels A group of gels that is used to enhance the thickness of other gels while providing a smoother surface than some UV building gels.

UV stabilizers Ingredients that control color stability and prevent sunlight from causing fading or discoloration.

valve A structure that temporarily closes a passage or permits blood flow in one direction only.

vapor A liquid that has evaporated into a "gas-like" state but is not a gas.

vascular system See *circulatory system*.

vein A thin-walled blood vessel that is less elastic than an artery; veins contain cup-like valves to prevent backflow; they carry blood containing waste products from the capillaries back to the heart and lungs for cleaning and to pick up oxygen.

ventricle (VEN-truh-kul) One of the two lower chambers of the heart.

verruca (vuh-ROO-kuh) The technical term for a wart; hypertrophy of the papillae and epidermis.

vesicle (VES-ih-kel) A small blister or sac containing clear fluid lying within or just beneath the epidermis.

virucidal (vy-rus-SYD-ul) Capable of destroying viruses.

virus (VY-rus) (plural: viruses) A parasitic submicroscopic particle that infects and resides in the cells of biological organisms. A virus is capable of replication only through taking over the host cell's reproduction function.

viscosity The measurement of the extent of a liquid to flow.

visible light Electromagnetic radiation that we can see.

vision statement A long-term picture of what the business is to become and what it will look like when it gets there.

vitamin A Aids in the health, function, and repair of skin cells; improves the skin's elasticity and thickness.

vitamin C Needed for proper repair of the skin and various tissues; promotes the production of collagen in the skin's dermal tissues, keeping the skin healthy and firm.

vitamin D Promotes healthy and rapid healing of the skin; enables the body to properly absorb and use calcium, the element needed for proper bone development and maintenance.

vitamin E Helps fight against and protect the skin from the harmful effects of the sunlight.

vitiligo (vih-til-EYE-goh) Milky-white spots (leukoderma) of the skin. Vitiligo is hereditary and may be related to thyroid conditions.

volatile (VAHL-uh-tul) Easily evaporating.

volatile organic compounds Abbreviated as VOCs; compounds containing carbon (organic) and that evaporate very quickly (volatile) and easily.

volt (VOLT) A unit that measures the flow of electrons forward through a conductor.

water-in-oil (W/O) emulsion Water droplets emulsified in oil.

watt (WAHT) (W) A unit that measures how much electric energy is being used in one second.

wavelength The distance between successive peaks of electromagnetic waves.

wheal (WHEEL) An itchy, swollen lesion that lasts only a few hours, caused by a blow, the bite of an insect, urticaria, or the sting of a nettle.

white blood cells Also known as or *leukocytes*; blood cells that perform the function of destroying disease-causing microorganisms.

wooden pusher A wooden stick used to remove cuticle tissue from the nail plate (by gently pushing), to clean under the free edge of the nail, or to apply products.

work ethic Taking pride in your work and committing yourself to consistently doing a good job for your clients, employer, and salon team.

wrap resin accelerator A product specially designed to help adhesives dry more quickly.

written agreements Documents that govern the opening of a salon, including leases, vendor contracts, employee contracts, and more; all of which detail, usually for legal purposes, who does what and what is given in return.

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