

Glossary of Terms

Ablation- removal of tissue: the removal of unwanted tissue from the body by surgical or other means

Abdominoplasty: A surgical procedure done to flatten the abdomen by removing extra fat and skin and tightening muscles in your abdominal wall. This procedure is commonly called a tummy tuck.

Adipose- fat under the skin and surrounding major organs, providing stored energy, insulation, and protection

Apoptosis- A form of cell death in which a programmed sequence of events leads to the elimination of cells without releasing harmful substances into the surrounding area

Angiogenesis- the physiological process through which new blood vessels form from pre-existing vessels
Contraindication

Bipolar- with two poles: having two physical poles or extremities

Cellulite- fatty deposits just beneath skin: fatty deposits beneath the skin that give a lumpy or grainy appearance to the skin surface, especially on the thighs or buttocks

Coagulation- The process by which the blood clots to form solid masses, liquid to a gel

Collagen- The principal protein of the skin, tendons, cartilage, bone, and connective tissue Collagen is an essential part of the framework of the design of our various body tissues. Those women who want that full pouty look can have collagen injected into their lips.

Contraindication- to state something to be inadvisable while taking particular medication because of a likely adverse reaction



Dermabrasion: A surgical procedure in which a patient's upper layers of skin, scarred from acne, pox, or other causes, is frozen and then removed using a high-powered rotating brush

Dermatitis: An inflammation of the skin caused by an allergic reaction or contact with an irritant. Typical symptoms of dermatitis include redness and itching.

Dermatologist: A doctor who specializes in the treatment and diagnosis of skin and skin-related problems.

Dermis: The middle layer of the skin, the dermis is a complex combination of blood vessels, hair follicles, and sebaceous (oil) glands. Here, you'll find collagen and elastin. The dermis is also where wrinkles occur.

Diode- A laser whose active medium is a form of light-emitting diode

Disposables- something to be used only once: something that is designed to be thrown away after use

Eczema: A skin condition characterized by itchy, irritated, inflamed skin. Eczema comes in many forms and can be triggered by a variety of factors, including allergies, environmental factors, or family history. The raised, inflamed skin can appear anywhere on your body, including the face, legs, arms, or neck.

Eddy current- an electric current set up by an alternating magnetic field

Elastin: A protein found with collagen in the dermis that is responsible for giving structure to the skin and organs.

Elastosis- breakdown of elastic tissue (as the loss of elasticity in the skin of elderly people that results from degeneration of connective tissue)



Epidermis (Stratum Corneum) - layer of skin beneath epidermis: the thick sensitive layer of skin or connective tissue beneath the epidermis that contains blood, lymph vessels, sweat glands, and nerve endings The epidermis is made up of five layers of its own: stratum germinativum, stratum spinosum, stratum granulosum, stratum lucidum, and stratum corneum.

Epithelialization- the regrowth of skin over a wound

Esthetician

An esthetician is a professional trained to give beauty treatments like facials, manicures, and pedicures.

Fat necrosis- the morphological changes indicative of cell death caused by progressive enzymatic degradation in which the death of adipose tissue results in neutral fats being split into fatty acids and glycerol

Fibroblast- cell producing connective tissue: a large flat cell in connective tissue that secretes collagen and elastic fibers

Fractional Ablation- is a non-invasive treatment that uses a device to target and damage a fraction of the skin at a time thus leaving the surrounding tissue in tact. The healthy tissue aids the damaged tissue to heal faster and with less downtime or complications associated with ablative treatments.

Free fatty acids- a non-esterified fatty acid, released by the hydrolysis of triglycerides within adipose tissue

Glycerin

Glycerin can be found in moisturizers; it holds water particles together.

Hematoma- mass of blood: a semisolid mass of blood in the tissues, caused by injury, disease, or a clotting disorder



Homogeneously- having uniform composition: having a uniform composition or structure

Hydroquinone

Hydroquinone is a white crystalline compound used in skincare products as a bleaching agent.

Hyperpigmentation

Hyperpigmentation is a skin condition caused by ultraviolet light from the sun, which darkens the skin.

Hypertrophic scar: A raised and red scar, similar to a keloid scar but different in that it stays within the boundaries of the injury site.

Hypopigmentation: A skin condition in which there is a lack of pigmentation.

Impedance- prevention of progress: something that delays or prevents progress, or the preventing of progress

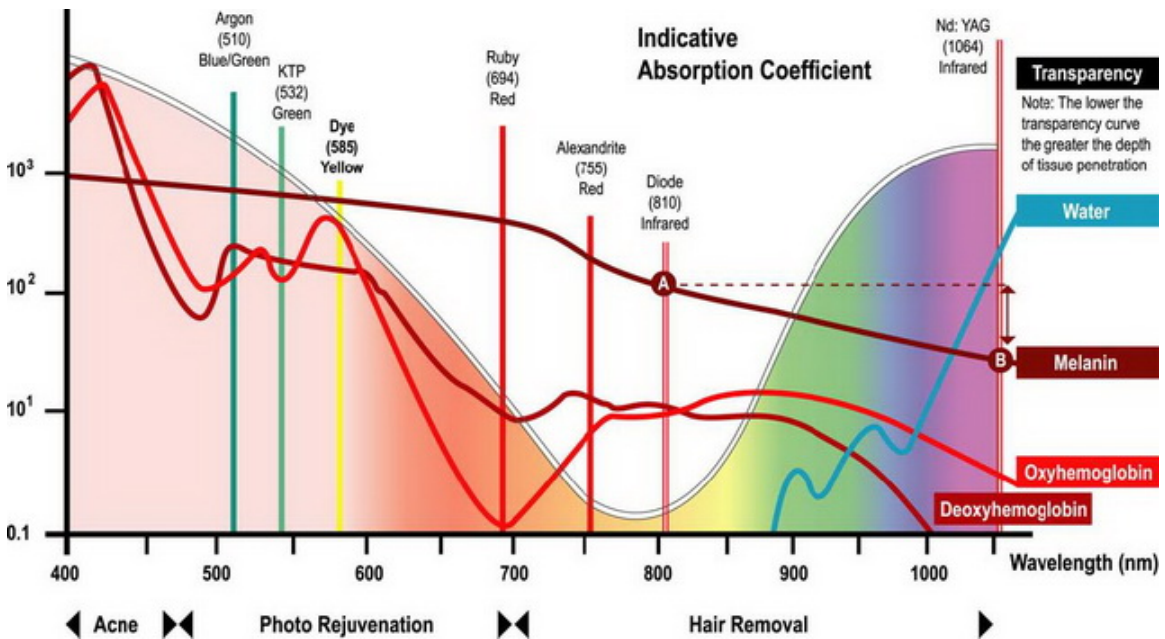
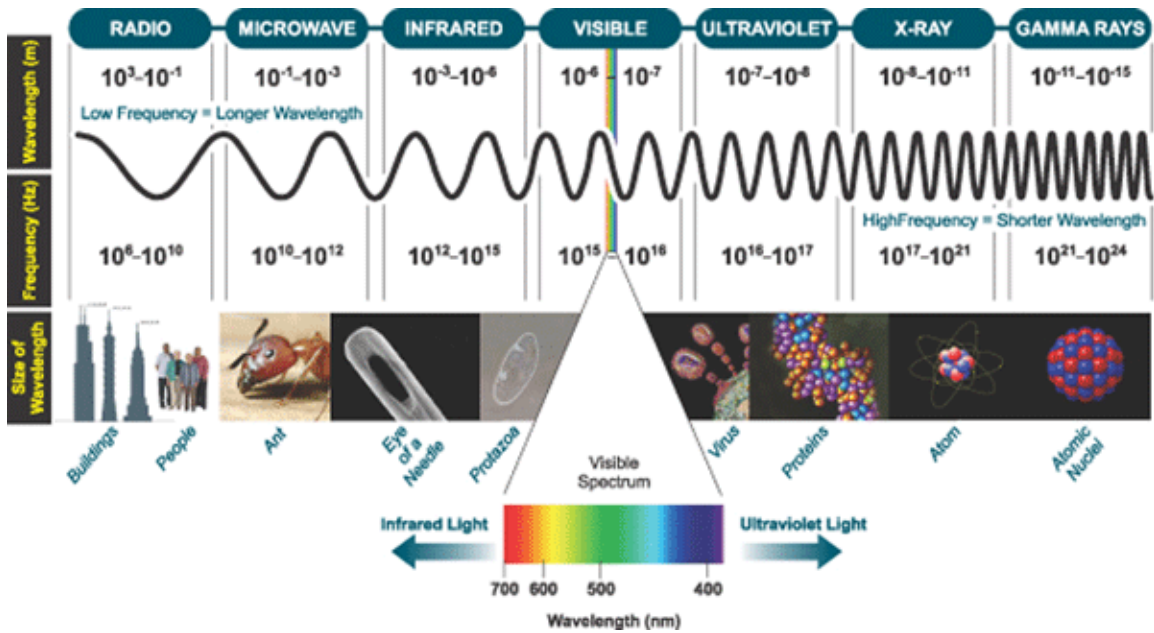
Keloid scar: A type of scar that continues to grow beyond what is needed at the site of an injury. This type of scar is caused by too much collagen forming while the skin is being repaired. The tendency to develop keloid scars is genetic.

Keratin: This dominant protein is the skin's main material, occurring also in hair and nails. Keratin is what makes skin rigid.

Keratinocyte- Keratinocytes are the most common type of skin cells. They make keratin, a protein that provides strength to skin, hair, and nails

Laser: Light amplification by stimulated emission of radiation. A **laser** is a device that emits light through a process of optical amplification based on the stimulated emission of electromagnetic radiation.

Depending on the wavelength, measured in nanometers, the impact on tissue will vary.



Lipase- fat-reducing enzyme: a pancreatic enzyme that breaks down fats

Lipolysis- breakdown of fats: the breakdown of fats into fatty acids and glycerol



Liposuction: A cosmetic procedure in which a special instrument called a cannula is used to break up and suck out fat from the body. This procedure is also known as lipoplasty.

Lymphatic drainage- A clear, watery, sometimes faintly yellowish fluid derived from body tissues that contains white blood cells and circulates throughout the lymphatic system, returning to the venous bloodstream through the thoracic duct. Lymph acts to remove bacteria and certain proteins from the tissues, transport fat from the small intestine, and supply mature lymphocytes to the blood.

Melanin

Melanin is the dark pigment in hair and skin.

Melanocytes: A pigment producing cell found in the skin, hair, and eyes that gives them their color.

Melanoma: The most dangerous form of skin cancer. Melanoma can spread rapidly and be fatal if not detected and treated.

Melasma: A condition in which pigmentation of the cheeks of the face darkens into tan or brown patches. This condition occurs in half of all women during pregnancy.

Mono-polar- having single pole: operating by means of, having, or produced by a single electric or magnetic pole

Neo-collagenesis- the creation and inducement of new **collagen** within our skin

Neo-vascularity- rapid reproduction of blood vessels in tissue

Neurotoxin- substance toxic to nerves: a substance that damages, destroys, or impairs the functioning of nerve tissue

Nd Yag- is a laser in which the active gain medium is neodymium-doped yttrium aluminum garnet; $\text{Nd:Y}_3\text{Al}_5\text{O}_{12}$ Nd:YAG lasers are optically pumped using either a flashlamp or laser diode array. They

are one of the most common types of laser, and are used for many different applications. They typically emit light with a wavelength of 1064 nm, but can be frequency doubled (532nm, green) or tripled (266nm, blue). Nd:YAG lasers operate in both pulsed and continuous wave (CW) mode. Pulsed Nd:YAG lasers are typically operated in a Q-switched mode.

Osteo-genesis- bone development: the formation of bone in the body

P.E.M.F- Pulsed Electro-Magnetic Fields.

Photoaging- damage to the skin caused by too much exposure to the sun.

Photosensitivity

Photosensitivity is a skin condition, manifested in rashes or swelling, that results from applying or eating certain chemicals or foods, then exposing the skin to sunlight.

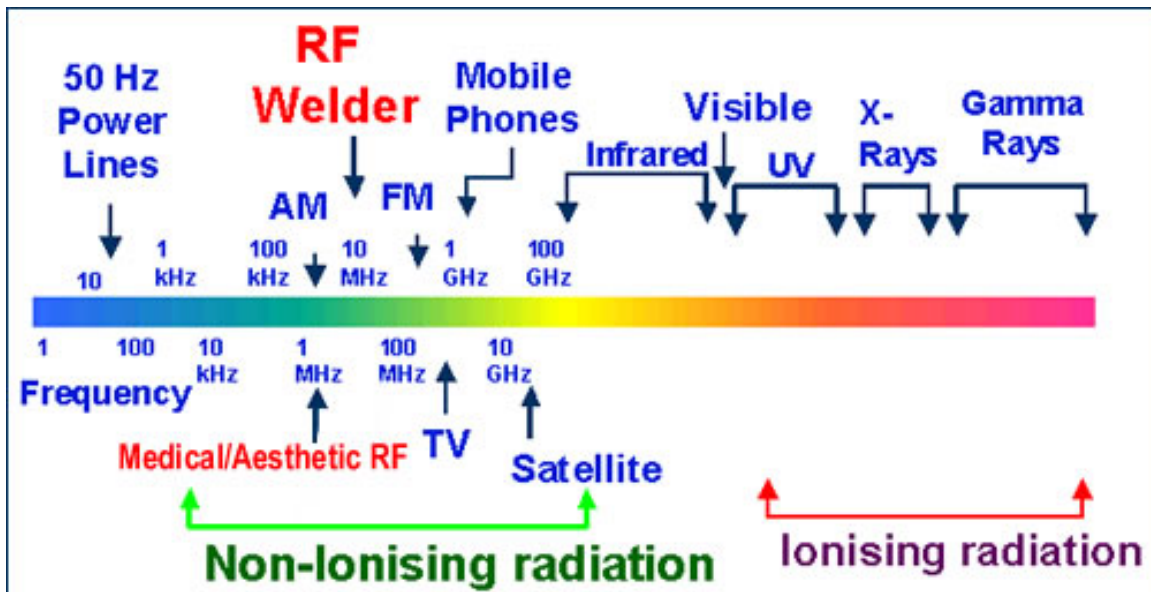
Proliferation- reproduce rapidly: to multiply cells in the process of reproducing new cells, offspring, or parts, as in the budding of plants, or be multiplied in this way

Psoriasis- is a skin disease that produces dry, itchy red patches.

Radio Frequency- The RF part of the electromagnetic (EM) spectrum is generally defined as that part of the spectrum where electromagnetic waves have frequencies in the range of about 3 kilohertz (3 kHz) to 300 gigahertz (300 GHz). Microwaves are a specific category of radio waves that can be defined as radiofrequency energy where frequencies range from several hundred MHz to several GHz. Radiofrequency radiation, especially at microwave frequencies, can transfer energy to water molecules. High levels of microwaves will generate heat in water-rich materials such as most foods. This efficient absorption of radio frequency energy via water molecules results in rapid heating throughout an object, thus

allowing food to be cooked more quickly in a microwave oven than in a conventional oven.

Not surprisingly, human tissue has the same properties of foods in the respect of being a water-rich material, and reacts to the energy in the same way, and the biological effects that result from heating of tissue by RF energy are often referred to as "thermal" effects. It has been known for many years that exposure to very high levels of RF radiation above 3MHz can be harmful due to the ability of RF energy to heat biological tissue rapidly. In devices used for aesthetic purposes, the RF frequency used is much lower, (typically 1-2 MHz) and consequently less likely to cause thermal damage unless exposed for prolonged periods where excessive heating occurs.



Rejuvenation- to make young again; restore to youthful vigor, appearance

Rosacea- skin disease of face: a recurring inflammatory disorder of the skin of the nose, cheeks, and forehead that is characterized by swelling, dilation of capillaries, pimples, and a reddened appearance.



SPF- SPF is an acronym for sun protection factor. Sunscreen products have an SPF; the higher the SPF, the more protection you get from sunburn.

Stratum corneum: The outermost layer of the epidermis.

Sunblock- Sunblock, as opposed to sunscreen, is a lotion that actually blocks the ultraviolet rays of the sun. It's more effective than sunscreen.

Sunscreen- a product, usually a cream, that's applied to the skin to protect it from getting sunburned. The amount of protection is governed by its SPF.

Synthesis- the formation of compounds through one or more chemical reactions

Triglycerides- The major form of fat stored by the body

Vari-pulse- negative and positive pressure

Vasodilation- widening of blood vessels: widening of the blood vessels, especially the arteries, leading to increased blood flow or reduced blood pressure

Visceral fat- also known as organ fat or intra-abdominal fat, is located inside the abdominal cavity packed between the organs (stomach, liver, intestines, kidneys, etc.)

Vitiligo- A condition in which smooth white patches appear on the skin due to a loss of pigment producing cells.