



LASERSURGERY

Lasers are devices that emit one specific wavelength of light in short bursts or in pulses. Different laser wavelengths are selectively absorbed by different structures in the skin such as melanin pigment in skin and hair follicles, hemoglobin found in red blood cells, and water concentrated in the cellular epidermis and upper portions of the dermis. Because of this specific absorption, lasers are able to target certain structures while sparing others. Absorption of laser energy causes heating of the intended target and subsequent destruction.

Some of the commonly used lasers in dermatology include:

LASER TYPE	APPLICATION
Pulsed dye (V-beam)	Blood vessels Vascular birthmarks Freckles
Ruby Short pulsed Nd:YAG Alexandrite	Tattoos Freckles and pigmented birthmarks
Diode	Hair (pigmented)
Long pulsed Nd:YAG	Hair (pigmented), leg veins
Infrared Lasers (CO ₂ , Er:YAG, Diode)	Laser resurfacing Skin tightening
Intense Pulsed Light (IPL)	Multiple including photorejuvenation, blood vessels, hair removal

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