

What is a laser?

LASER stands for Light Amplification by Stimulated Emission of Radiation. A laser is an opto-electronic device that produces highly concentrated light rays. Laser power may range from milliWatts (in CD-ROM drives and laser pointers) to dozens of Watts (industrial and medical applications) and over trillions of Watts (pulsed lasers in scientific and military applications).

What is laser surgery?

Interaction of laser light with tissue provides a fundamentally different approach to surgery. In laser surgery, a highly focused laser beam can efficiently **ablate** (either vaporize or chip away) the living tissue. At the same time, it **seals** (welds) capillaries, small blood vessels, lymphatics, and nerve endings, with significant benefits to both patients and surgeons

Laser surgery benefits for patients

Less Bleeding: As it cuts, the laser seals small blood vessels. This drastic reduction in bleeding enables a number of new surgical procedures that are not practical with conventional scalpel.

Less Pain: The CO₂ laser beam seals nerve endings and lymphatics, resulting in less edema and pain. The patient experiences a far more comfortable post-operative recovery.

Reduced risk of infection: This is one of the unique features of the CO₂ laser beam. It efficiently kills bacteria in its path, producing a sterilizing effect.

Quicker recovery time: Reduced risk of infection, less bleeding, less pain and less swelling often allow the patient a far quicker recovery after the surgery.