

Laser versus conventional surgery

The dental world has had many advancements throughout the years. These technological innovations have made dental sessions more effective, appealing, pain free and appealing to the people in general. The surgical procedures in dentistry have been the ones to gain most significantly from these unconventional alternatives.

Laser therapy has been one of the most impactful innovations of the recent times. Laser is an acronym for the light amplification by stimulated emission of radiation. Laser treatment has served as an alternate or adjunct treatment to more conventional therapies owing to its several advantages including ablation or vaporization and sterilization. There are four main types of lasers being used in dentistry namely CO₂, diode, Er:YAG and the Nd:YAG and there are some variations in the wavelengths of each of these.

Surgical lasers offer a new alternative to scalpel surgery. The better control of laser, less post-operative inflammation and pain along with improved healing are all benefits of using laser in surgery. The laser's narrow beam of light only removes the diseased tissue without incisions and with minimum destruction of healthy tissue. Besides precisely targeting and destroying diseased tissue, the laser's pulsating energy also limits excessive heat buildup that may damage healthy tissues. Laser limits bleeding by cauterizing the area it passes through. As a result, there is less tissue disruption and damage, less bleeding and no need for suturing afterwards.

Reports suggest that laser created wounds heal more quickly and produce less scar than the conventional surgery, although contrary evidence also exists. Post-operative pain from oral and otolaryngeal procedures has been claimed to be reduced in laser surgery.

Despite its many advantages, the laser technique requires many precautions. The laser beam may get reflected from shiny metal surfaces and cause eye injury, hence making a protective eyewear essential. Accidental exposure to the non-target tissue has to be protected at all cost. It is also crucial to have a trained technical assisting staff.

The persistent question at this point is that is the laser as effective as conventional procedures. A number of studies have indicated similar success rates as with conventional surgery. Laser surgery for both hard and soft tissues is currently at a high state of refinement, having had several decades to develop and further improvisations may occur. At this point, it could be conveniently stated that the laser technique is a great alternative for conventional surgery. Looking to the future, it is expected that specific laser technologies may become essential components of contemporary dental practice