

# Dentistry & Oral Care

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## Current uses of diode lasers in dentistry

**B Shanthala Mallikarjun**  
Coorg Institute of Dental Sciences, India

**Introduction:** Recent advance in laser technology has revolutionized the dental practice. The individual laser type owing to its physical properties and tissue interactions has range of application in dental practice. Diode laser are semiconductor lasers used for multitude application in dental procedures.

**Aim:** The objective of the presentation is to highlight the uses of diode lasers in dental procedures as pulpotomy medicament and canal disinfectants, in frenectomies and laser applied fluoride therapy (LAFT).

**Methods:** LAFT is a combination of laser irradiation combined with fluoride application. This combination improves the resistance of enamel surface to acids in the process of caries by creating the micro-spaces in the enamel surface and serves as the reservoirs of fluorides. This was tested by evaluating the loosely bound fluoride and the SEM evaluation of the enamel surfaces exposed to LAFT.

**Results:** Diode lasers used as canal disinfectants demonstrated better antibacterial properties. In frenectomies, diode lasers demonstrated better patient satisfaction and healing as compared to conventional surgical procedures. Diode laser as a pulpotomy medicament demonstrated better pulpal response by maintaining the integrity of odontoblastic layer, reduced inflammation and necrosis when compared to formo-cresol.

**Conclusion:** Diode laser has proven to have a multitude of application in preventive and restorative procedures and in diagnosis of caries.

## Biography

B Shanthala Mallikarjun graduated in 1992 and Post graduation in Pedodontics and preventive Dentistry from ABMIDS, Mangalore University, 1994. Presently, she is working as Professor and Head for Department of Pedodontics, Coorg Institute of Dental Sciences. She has Professional memberships in Indian Dental Association (IDA), Indian Society of Pedodontics and Preventive Dentistry (ISPPD), International Association of Dental Research (IADR). She worked as Treasurer, ISPPD from 1995-1997, Organizing Chairman 9th National PG Convention, 1st National PG Symposium, ISPPD. Twenty years of experience as Pediatric Dental Practitioner. She participated in Deans Forums (South East Asian Association of Dental Education, SEAADE 2013, 2014 & 2015). Presently, she is the reviewer of the journals *Indian Journal of Dental Research* and *Rajiv Gandhi University of Dental Sciences Journal*. She has presented a poster in SEAADE 2014 and paper presentation in IADR 2015. She has publications in national & international dental journals.

[shanthala\\_mallikarjun@yahoo.com](mailto:shanthala_mallikarjun@yahoo.com)

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