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## **Lasers in root canal sterilization: A clinical case presentation**

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**L**asers (Light amplification by stimulated emission of radiation) are slowly but surely revolutionizing dental treatment. In dentistry, lasers are accurate, preserve more healthy tooth structure, produce minimum to no pain during treatment, sterilize tissues with minimal to no bleeding and promote faster tissue healing. The first use of lasers in endodontics was in 1971. With a rapid development of laser technology, new lasers with a wide range of characteristics are now available. In endodontics they are used for a variety of procedures such as alleviating dentinal hypersensitivity, pulpal diagnosis, pulp capping and pulpotomy, cleaning and shaping of root canal systems, canal sterilization and endodontic surgery. The following clinical cases demonstrate the use of a diode laser in canal sterilization, promoting faster periapical healing. Studies have shown that lasers have a bactericidal effect. The laser beam as it diverges has a higher penetration depth enabling irradiation of the curvatures and complexities within the root canal system like lateral and accessory canals, fins, webs and apical deltas. Laser irradiation has the ability to remove debris and the smear layer from the root canal walls following biomechanical instrumentation. This enables the clinician to confidently clean and shape the root canal system in minimum time leading to higher patient satisfaction.

### **Biography**

Meheriar Chopra has completed his BDS and MDS in Conservative Dentistry and Endodontics from Maharashtra University of Health Sciences Ministry of Health, M.A.R Dental College, Pune, India. He has completed his Diploma in Lasers from SOLA (Society of Oral Laser Applications) affiliated to University of Vienna. He is a leading Endodontist with a private practice in Pune, India. He has research articles published in both National and International journals.

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