

A recent update for the use of lasers in operative dentistry

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Different types of lasers have been applied in dentistry for cavity preparation and caries removal, however, Er:YAG laser has proved its feasibility to be used for dental cavity preparation when compared to other types of lasers. Literature provide contradicting results regarding the quality of dentin resulting from Er:YAG laser ablation. Moreover the interaction between the cavities' walls prepared by Er:YAG laser and the restorative materials raises many questions regarding the reliability of this technique for cavity preparation. The first part of this presentation is going to discuss the mechanism of action of Er:YAG laser for ablating tooth structure and recommend the most suitable Er:YAG laser parameters to ablate dentin surfaces. The second part is going to investigate the durability of the interface formed between the Er:YAG laser ablated dentin and adhesive systems.

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