

# “Rethinking Endodontic Cavity Preparation”

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## < Education & work experience >

DDS, (MSD, PhD) from Chosun University, Gwangju, South Korea

Residency program at the Department of Conservative Dentistry, Chosun University Dental Hospital

Dental Surgeon at the ROK Air Force

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## < Current positions >

Chief Director in Mokpo Mir Dental Hospital

Instructor in Mir Dental Network Academy

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## < Memberships >

The Korean Academy of Conservative Dentistry : Certified Dentist, Specialist

Korean Academy of Endodontics : Member

The Korean Academy of Microscope Dentistry : Member

The endodontic cavity preparation to access the root canal system is closely related to canal cleaning and shaping, and obturation for successful endodontic treatment. The purpose of endodontic cavity preparation is to facilitate access from the margin of the access cavity to the apical foramen during instrumentation, and to remove all caries, restorations, calcified materials, pulp residues, necrotic materials, and visually checking the positions of all root canal entrances.

If the roof of pulp chamber is removed, the entrance to the root canal can be seen visually and tactfully. In addition, a method of straight-line access from the outside of the endodontic cavity to the root canal has been introduced. The endodontic files used in clinical practice may require unobstructed instrumentation as much as possible until they reach the root canal. Endodontic cavity preparation performed to achieve this purpose can reduce the fracture strength of the tooth because the endodontic treatment process necessarily accompanies the loss of dentin. There are several options in the post endodontic restorations. Differences exist depending on the restoration method, there may be slight differences in the part of dentin considered important. The removal of the pulpal wall reduces the mass of dentin on the margins of the restorations. Therefore, it will be important to preserve the

dentin during endodontic cavity preparation in order to use the endodontic treated teeth for a long time.

It has been reported that the more dentin remain after root canal treatment, the higher the long-term survival rate even without prosthodontic treatment. In recent years, various studies related to the endodontic cavity have been reported.

Even if the loss due to dental caries cannot be controlled, there is a possibility that the clinician can control the amount of dentin removal due to endodontic treatment. The form of endodontic cavity preparation established at the time of traditional endodontic treatment using the naked eye and manual instruments is important in the endodontic treatment process. On the other hand, with the development of a dental microscope and a nickel-titanium files, endodontic treatment with an improved aspect compared to the naked eye and existing instruments is possible. Therefore, I think that endodontic cavity preparation has some scope to consider in dentin preservation. In this presentation, I would like to rethink endodontic cavity preparation from the review the considerations.