

EDTA

J Endod. 2002 Jul;28(7):501-2.

The demineralizing effects of EDTA at different concentrations and pH.

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The purpose of this study was to compare the effects of concentration and pH variations of EDTA on dentin demineralization. Twenty extracted, human permanent teeth with single canals were used in this study. Demineralizing effects of EDTA solutions at 10% and 17% concentrations at pH 7.5 and 9.0 were determined by measuring the amount of liberated phosphorus 1, 3, 5, 10, and 15 min after exposure.

The results showed that the amount of phosphorus liberated from dentin was greater with increased EDTA concentration and increased time of exposure, and it was more effective at neutral pH than pH 9.0. The pH of the EDTA solutions did not display any significant alterations during the demineralization process.

PMID: 12126374 [PubMed - indexed for MEDLINE]

J Endod. 1987 Apr;13(4):147-57.

A scanning electron microscopic evaluation of four root canal irrigation regimens.

Baumgartner JC, Mader CL.

A scanning electron microscope was used to evaluate the debridement capabilities of four irrigation regimens on both instrumented and uninstrumented root canal surfaces. A typical smear layer was seen on the instrumented surfaces of specimens irrigated with saline and NaOCl. EDTA demineralized much of the smear layer from the instrumented surfaces and exposed the orifices of some of the underlying dentinal tubules. NaOCl removed all pulpal remnants and predentin from the uninstrumented surfaces of the root canal while EDTA and saline left pulpal remnants and predentin on the uninstrumented surfaces.

The combination of NaOCl and EDTA used alternately completely removed the smear layer from the instrumented root canal surfaces as well as the pulpal remnants and predentin from the uninstrumented surfaces. In addition, the combination of NaOCl and EDTA caused the exposed calcospherites on the uninstrumented surfaces to have an eroded appearance.

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Catalog Information:

Description	Quantity	Item#	Price
30mL Bulk Syringe	1 / Syringe	503700	\$8.20
4 oz (120mL) Bottle	1 / Bottle	317001	\$14.30
16 oz (480mL) Bottle	1 / Bottle	317011	\$48.55
Unit Dose Kit	20 / Box	317002	\$19.75
Includes: (20) 0.6mL prefilled syringes (20) 27ga side-vent irrigating tips			