

Endo Cal™

by M Dent

(Ready - mixed calcium hydroxide paste)

For Professional Use Only

PATENT PENDING NUMBER 091126

INDICATION : For root canal medication

BACKGROUND:

Calcium hydroxide paste is frequently used as a temporary treatment material to pack the root canal during a root canal procedure. In general, three different types of a mixing vehicle are used; aqueous, viscous or oily vehicle. The vehicles for calcium hydroxide must allow satisfactory dissociation and diffusion of calcium and hydroxyl ions and biocompatibility. A hydroxyl ion is believed to be responsible for the highly alkaline nature of the calcium hydroxide, which is bactericidal. In clinical practice, calcium hydroxide paste is commonly prepared by freshly mixing calcium hydroxide powder with distilled water. The aqueous vehicles promote high degree of solubility when the paste remains in direct contact with the tissue and tissue fluid. Due to its high and rapid solubility, the root canal can become empty in a short period. From a clinical standpoint, the therapeutic effect is rapidly terminated. The paste with viscous or oily vehicle promotes a lower solubility when compared with aqueous vehicle. Thus, the release of calcium and hydroxyl ions is slower and results in a longer therapeutic effect.

Although most microorganisms are destroyed at pH 9.5, a few can survive at pH 11.5 and appear to be highly resistant to intracanal medicament. This is the reason why many commercial calcium hydroxide pastes such as **Endo Cal™** are prepared at pH 12.5.

BRIEF SUMMARY OF THE INVENTION : Endo Cal™ by M Dent

The objective of this invention is to formulate a ready-use calcium hydroxide paste in viscous vehicle to control the release of calcium and hydroxyl ions in root canal with extended therapeutic effect for root canal disinfection.

Endo Cal™ is 40 – 45 %(w/w) calcium hydroxide in propyleneglycol vehicle, 12.5 pH, and radiopaque. The paste contains *surfactant* to facilitate removal of calcium hydroxide paste from root canal after treatment. **Endo Cal™** does not get hard and is stable under normal conditions of use and storage.

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NOTE : Box contains 2 syringes and 20 dispenser needles. (Price : 550 Bht. / BOX)

: To extend shelf-life, recap syringe promptly after each use.

: If paste becomes dry from prolonged cap opening and obturate the tip of syringe, place a drop of water in the cap and recap syringe for a few minutes before use.

OWNER : FACULTY OF DENTISTRY, MAHIDOL UNIVERSITY, THILAND

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