

Author:  [ADVANCED](#)

Volume Page

Keyword:    [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1881-1361

PRINT ISSN : 0287-4547

**Dental Materials Journal**

Vol. 27 (2008) , No. 1 p.75-80

[\[PDF \(468K\)\]](#) [\[References\]](#)**Removal of Resin-based Root Canal Filling Materials with K3 Rotary Instruments:  
Relative Efficacy for Different Combinations of Filling Materials**[Naoyuki IIZUKA](#)<sup>1)</sup>, [Shoji TAKENAKA](#)<sup>1)</sup>, [Yoshimi SHIGETANI](#)<sup>1)</sup> and [Takashi OKIJI](#)<sup>1)</sup>

1) Division of Cariology, Operative Dentistry and Endodontics, Department of Oral Health Sciences, Niigata University Graduate School of Medical and Dental Sciences

(Received July 4, 2007)

(Accepted August 16, 2007)

**Abstract:**

Removal of resin-based root canal filling materials may cause serious problems during root canal retreatment. This study compared the working time and amount of canal enlargement when different resin-based root canal filling materials were removed with K3 rotary instruments with or without heat-softening using System B. Root canal sealer/filling point combinations tested were Epiphany/Resilon, SuperBond/Resilon, SuperBond/gutta-percha, and Canals N/gutta-percha. The materials were filled into simulated curved resin canals and removed with K3 instruments in a standardized crown-down procedure. In terms of working time, Epiphany/Resilon required a significantly longer working time than the others. However, heat application with System B significantly reduced the working time for the removal of Epiphany/Resilon. In terms of canal enlargement, there were no significant differences among the tested groups as determined with digital morpho-metry. It was thus concluded that Epiphany removal with K3 rotary instruments might result in extended working time, but which could be reduced with heat-softening using System B.

**Key words:**[Resin-based root canal filling material](#), [Ni-Ti rotary instrumentation](#), [Root canal retreatment](#)[\[PDF \(468K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)

To cite this article:

Naoyuki IIZUKA, Shoji TAKENAKA, Yoshimi SHIGETANI and Takashi OKIJI. Removal of Resin-based Root Canal Filling Materials with K3 Rotary Instruments: Relative Efficacy for Different Combinations of Filling Materials . Dent. Mater. J. 2008; 27: 75-80 .

---

doi:10.4012/dmj.27.75

JOI JST.JSTAGE/dmj/27.75

Copyright (c) 2009 The Japanese Society for Dental Materials and Devices

---



---

[Japan Science and Technology Information Aggregator, Electronic](#)

