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[\[Image PDF \(448K\)\]](#) [\[References\]](#)**Effect of Curing Method and Storage Condition on Fluoride Ion Release from a Fluoride-releasing Resin Cement**[Akira YODA](#)¹⁾, [Toru NIKAIDO](#)¹⁾, [Masaomi IKEDA](#)¹⁾, [Hidekazu SONODA](#)¹⁾, [Richard M. FOXTON](#)²⁾ and [Junji TAGAMI](#)¹⁾³⁾

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Abstract:

The purpose of this study was to evaluate fluoride ion release from a resin-modified glass ionomer cement (Fuji IILC improved, FLC) and a fluoridated resin cement (Panavia F, PF) following different curing methods and storage conditions. The specimens, which were either light-cured (LC) or chemical-cured (CC), were stored in either distilled water (DW) or demineralizing solution (DS; pH 4.5) for 1, 3, 7, 15, 30, 60, and 90 days. Fluoride ion release was measured using a fluoride ion-specific electrode. Data (n=5) were statistically analyzed using one- and three-way ANOVA (p=0.05). A "burst effect" was observed in the first week from both materials. However, fluoride ion release from FLC was seven times higher than that from PF. Storage in demineralizing solution accelerated the amount of fluoride release from both materials. In addition, LC yielded a lower amount of fluoride ion release from both materials, as compared to CC. It was concluded that both curing mode and storage medium influenced the amount of fluoride release from the tested materials.

Key words:[Fluoride release](#), [Resin cement](#), [Ion-specific electrode](#)

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