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[\[PDF \(727K\)\]](#) [\[References\]](#)**Effect of Curing Method of a Dual-cure Resin Cement on Monkey Pulpal Reaction after Bonding of Tooth-colored Inlay**[Yasushi SHIMADA](#)<sup>1)</sup>, [Md Akhtar UZZAMAN](#)<sup>1)</sup>, [Junji TAGAMI](#)<sup>1)2)</sup>, [Toru TANAKA](#)<sup>3)</sup>, [Takashi NAKATA](#)<sup>3)</sup>, [Yasuko NAKAOKI](#)<sup>3)</sup> and [Hidehiko SANNO](#)<sup>3)</sup>

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**Abstract:**

To compare the pulpal responses to light-cured and self-cured resin cements, cervical cavities were prepared in monkey's teeth, followed by application of etching gel and adhesive (Single Bond). A dual-cure resin cement (RelyX™ ARC) was applied, and hybrid composite inlays (Estenia) were bonded to the cavities. In one group, the cavities were photoirradiated for 20 seconds and the resin cement light-cured. In the other group, the resin cement was self-cured for six minutes without any photoirradiation. After experimental periods of seven, 28, and 70 days, histological features of pulp tissue were evaluated and compared. Results showed no significant differences in the histological features of the pulp tissues between the two curing methods. Both light-cured and self-cured resin cements showed acceptable biological compatibility with the monkey pulp. No bacterial penetration along the cavity walls was detected with either curing method.

**Key words:**[Pulpal response](#), [Dual-cure resin cement](#), [Composite resin inlay](#)

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