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## Analysis of the Cytotoxicity of Four Dentin Bonding Agents on Gingival Fibroblasts

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**Abstract:** The objective of this study is to evaluate effects of four dentin bonding agents PromptL-Pop, Syntac, Pekabond, Scotchbond-1 on cell proliferation in human gingival fibroblast cultures. Under aseptic conditions, test specimens were placed in the centre of 24-well tissue culture trays. Each well was covered at a concentration of 104 cells/cm<sup>2</sup>. The cultures were incubated at 37 °C and cell proliferation was determined by the MTT method 24 h and 72 h after exposure. Statistical analysis was performed applying the Student t test. Statistical analysis of data showed that all materials caused noncytotoxic effects for 24 hours and cytotoxic effects for 72 hours. Prompt L-pop displayed the highest number of cells whereas the lowest number of cells was found for Pekabond for 72 hours. These results support the proposal that some bonding agents may cause cytotoxic reactions under in vitro conditions.

**Key Words:** Dentin bonding agents, gingival fibroblasts, MTT, cell culture

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